



3 August 2021

## LG Energy Solution partnering with hummmgroup to enter the Virtual Power Plant (VPP) market

- Solar and battery adoption in Australia expected to more than double to ~\$5.0b by 2025
- Diamond Energy appointed as electricity retailer
- VPP predicted to become dominant vehicle for solar and battery sales in the medium term
- Target of 10,000 virtual network and energy storage systems installed by end of FY23

hummm group limited (ASX: HUM) (“**hummmgroup**”) is pleased to announce that it has entered a partnership with LG Energy Solution to provide Virtual Power Plant (“VPP”) solutions. Diamond Energy, the renewable energy generation retail electricity company has been appointed as the electricity retailer.

**hummm** is the leading financier of solar installations in Australia, financing over \$2.2b of residential rooftop solar panels (Photo Voltaic, or PV). This has delivered more than 1 gigawatt (1 billion watts) of electricity generation capability for use in Australian homes each year, representing 1.7m tonnes of CO<sub>2</sub> offset, equating to 68.9m trees planted, or 431,000 cars off the road each year.

**hummmgroup** Chief Executive Officer Rebecca James said:

*“Making renewable energy affordable for Australian homeowners has been a cornerstone of **hummm** for over a decade now, with more than 350 active solar merchants and \$547 million of Climate Bond certified Green bonds issued during this time. Forging into the VPP market, with a technology partner like LG Energy Solution and a retail partner like Diamond Energy will enable us to deliver quality, simplicity and great energy savings to our customers.”*

*“VPP is a natural progression for us with 265,000 solar systems financed since 2010. This new channel advances **hummm**’s leadership position by adding to our existing in home sales and corporate energy finance channels as green energy continues to evolve.”*

### What is a VPP?

A VPP is an alternative to traditional power stations. Rather than one big facility, a VPP delivers energy by aggregating the energy from rooftop solar panels and battery storage systems across the country. Through technology, the system can be controlled remotely and deliver electricity across the grid.

In addition, energy stored in batteries enables customers to “trade” energy through the VPP. This might mean selling energy generated during peak times or purchasing energy when the cost is low and storing it. The retailer directs your energy to offset the costs of installing the equipment, and when combined with solar, reduces the payback period.

LG Energy Solution General Manager of Residential Sales, Philip Crotty said:

*"We're delighted to be embarking on this new and exciting partnership in renewable energy. Our pedigree in creating and managing high quality battery technology, along with the trust we've built with our customers, give us great confidence that the partnership we have with **hummm**, as the largest financier of residential solar installations, will be a success. We believe there is a potential market of more than 10,000 homes that this new product construct will appeal to over the next few years, and we aim to create the largest residential VPP network in Australia."*

### How it works

To be eligible, customers must purchase and install solar and an LG Energy Solution VPP battery and finance the purchase through **hummm** (average expected transaction value: \$17.2k). Customers will then sign up with a **hummm**-referred VPP energy retailer (Diamond Energy). The customer will own the solar and battery system installed on their house. The energy retailer manages and directs energy from the solar and battery respectively at the customer's house.

The customer will directly benefit by receiving a guaranteed discount on the electricity reference rate from the VPP energy retailer (Diamond Energy). Customers will also receive an additional energy credit matched to the monthly instalment to **hummm**. The customer then pays this monthly instalment to **hummm** for the solar and battery system.

Authorised for release by the **hummm**group Disclosure Committee.

**-ENDS-**

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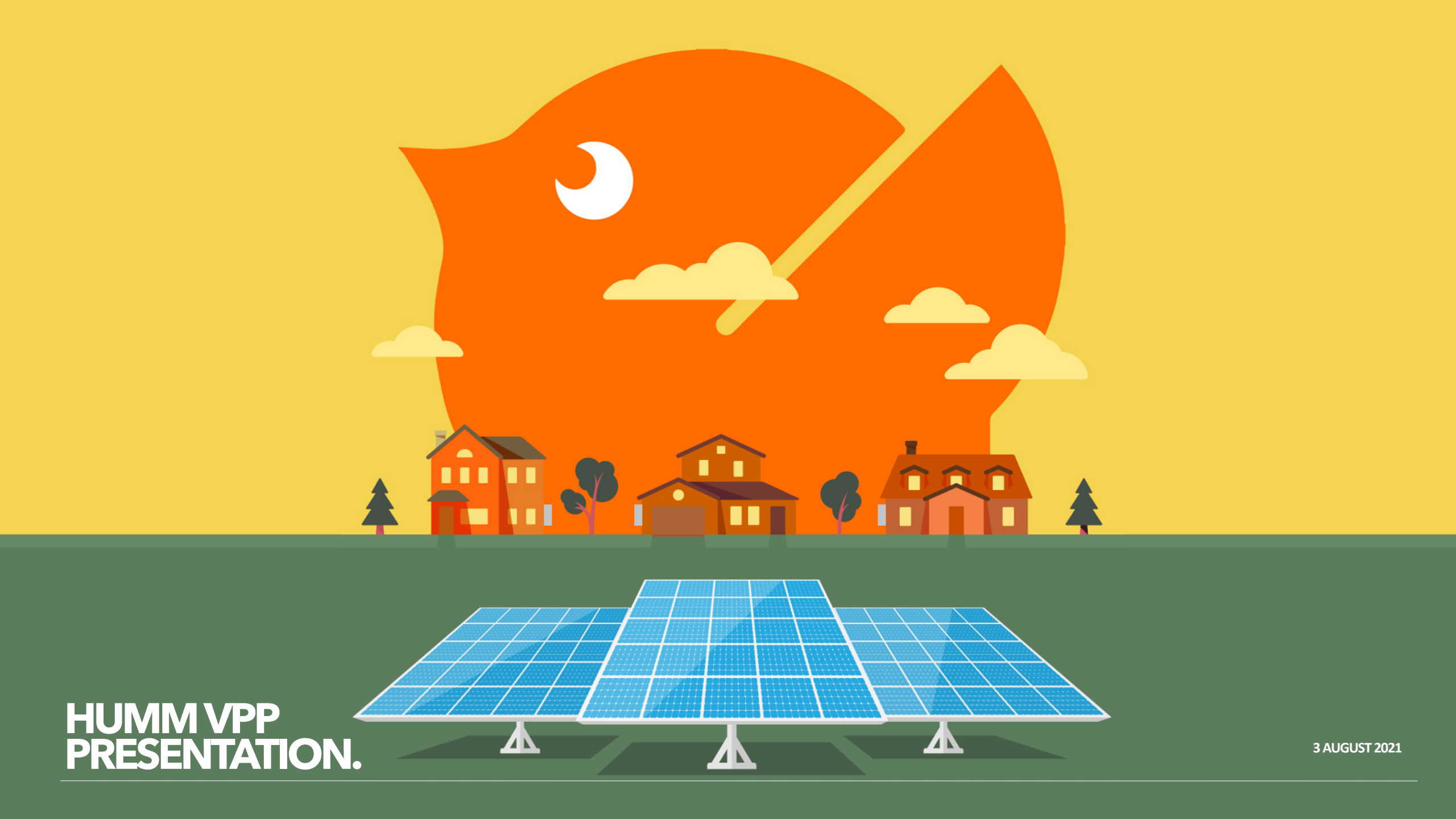
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### ABOUT HUMMMGROUP

**hummm**group is revolutionising the way people pay. **hummm**group has developed some of Australia and New Zealand's most exciting and accessible consumer finance products including **hummm**, **bundll**, **hummm90** and **hummmpro**. **hummm**group continues to design products around the core needs of financially savvy consumers spanning millennial spenders through to young families and SMEs. **hummm**group facilitates purchases for 2.7 million customers and operates in Australia, New Zealand, Ireland and the United Kingdom.

### About LG Energy Solution

LG Energy Solution (formerly LG Chem) is the world leader in lithium battery technology for residential, grid-scale, IT, appliances and electric vehicles. With a 75 year company history and 20 years in lithium battery development, they were first to produce lithium batteries for hybrid vehicles and are now the world's largest manufacturer of electric vehicle batteries. Headquartered in Korea, they have global distribution and manufacturing facilities in Asia, North America and Europe.



**HUMM VPP  
PRESENTATION.**

# hummgroup // Virtual power plant

hum and LG Energy Solution partnership to enter into the virtual power plant (“VPP”) market. Diamond Energy has been appointed as the electricity retail engine.

VPP participants will be residential homes with solar panels and one or more LG Energy Solution batteries attached. The whole system will be financed by humm’s market leading BNPL product.

Our goal is to be a leader in solar as a service.



**We are on a mission to revolutionise the way people buy energy.**

# // Virtual power plant

A VPP is an alternative to traditional power stations. Rather than one big facility, a VPP delivers energy by aggregating the energy from rooftop solar panels and battery storage systems across the country. Through technology, the system can be controlled remotely and orchestrated to deliver electricity across the grid.

## Market opportunity

- Solar and battery market expected to more than double to ~\$5.0b per annum market by 2025 (2021: ~\$2.2b)<sup>1</sup>.
- VPP predicted to become the leading category for solar and battery technology sales over the medium term.
- Current energy storage market of ~\$220m is estimated to reach ~\$3.5b by 2025<sup>1</sup>.
- Clear opportunity for leadership in this market.
- Strong backbook of over 110k **hummm** solar customers with systems over five years old to market replacement VPP offering.

## Notable VPPs

- Successful phase 1 and 2 trials in South Australia with network of over 1,000 energy storage systems.
- Seven participants in the Australian Energy Market Operator Virtual Power Plant Demonstrations, commenced in July 2019.
- VPP established in California of 100 megawatts in December 2020 with plans to scale to 550 megawatts in three years.

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1. Management estimates.

# Why the market is moving towards VPP//

## 1 Battery economics stack up

VPP delivers significantly better payoff periods for solar and battery

## 2 VPP software advancements

Software solutions and large scale VPP energy solutions tested and proven locally and internationally

## 3 Electricity market changes

Australian wholesale electricity market moving to five minute settlement period allowing for batteries to take better advantage of price fluctuations

## 4 Government support

Government funding increasing to roll out large scale VPP projects

 // A leader in Australian renewables

**265k** Solar systems financed in Australia since 2010.

**\$2.2b+** Residential rooftop solar panels financed.

**\$17.2k** Average expected transaction value for VPP solar and battery system.

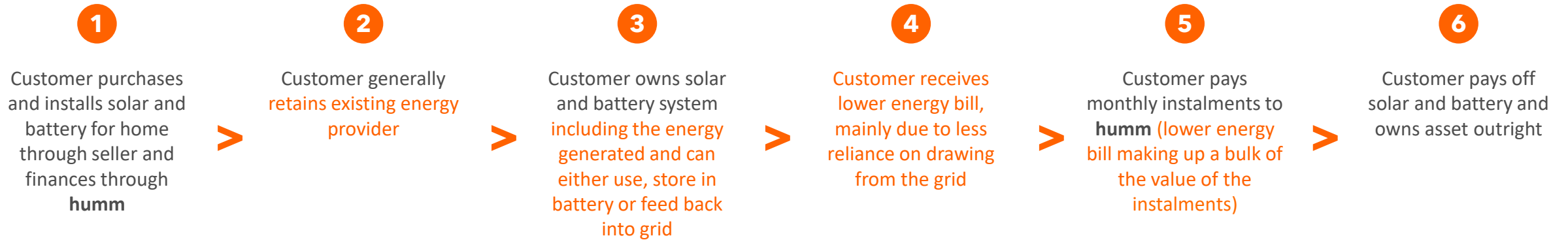
**1.7m** Tonnes of CO<sub>2</sub> offset, equivalent to 68.9m trees planted since 2010.

**\$547m** Climate Bond certified Green bonds issued since 2016.

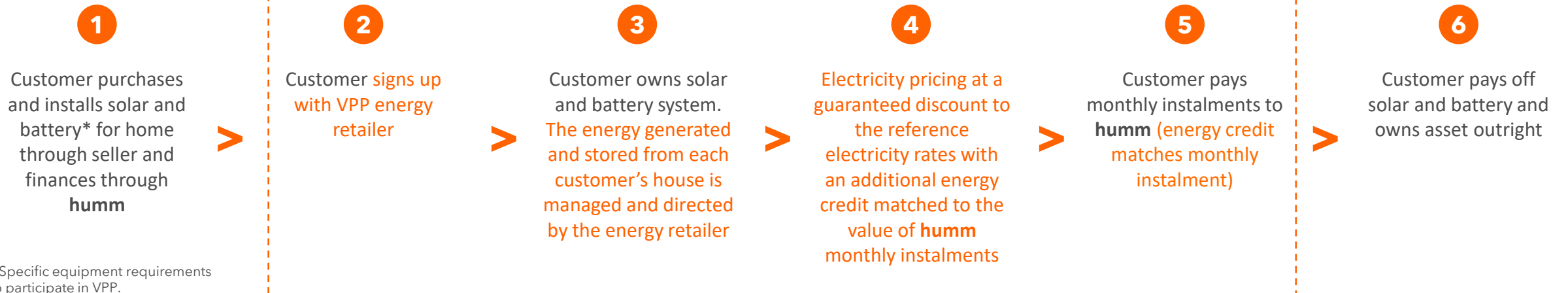
**1GW** Of electricity generation capability for use in Australia (1 billion watts).

# hummm® // VPP: The customer experience

## Customer experience: In home sales



## Customer experience: VPP



\* Specific equipment requirements to participate in VPP.



# **LG Energy Solution** // A leading global battery company

## Global scale

- 14.8GWh of installed and awarded energy storage capacity.
- Residential leader with over 400k home batteries.
- Operations in seven countries with over 20k employees.
- Global no.1 electric vehicle (EV) battery supplier.
- Revenue of US\$11.0b globally.
- 23.6k patents.
- Supplied the world's first mass produced lithium electric vehicle battery in 2009.

## Australian focus

- 264MWh of installed and awarded energy storage capacity.
- 23k residential batteries supplied.
- Recycling arrangement since 2018 with Envirostream, Australia's only onshore mixed-battery recycling company.
- Significant wholesale distribution network including future potential VPP partners.
- Most popular brand with installers.
- Specific equipment being developed and deployed for VPP launch.



// Industry leading VPP battery solution

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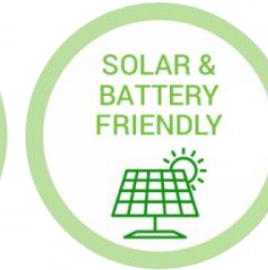
- Residential Energy Storage Unit (RESU) 12.
- 11.7kwh usable energy.
- Industry leading continuous power and efficiency.
- One of the most compact and energy dense batteries in the market.
- Expandable to two units to double capacity.
- Reliable storage technology first deployed in 2016.





## // Innovative energy retail partner

- Renewable energy generation and retail electricity company.
- Over 15 years' experience with an established presence across Australia.
- 1,000+ operating behind the meter third party owned "VPP" residential systems.
- Configurable and adaptive electricity billing solution, matched to **hum**'s needs (BNPL credit applied on bill).
- Operates Diamond GEM (generation energy management) an integrated system control solution for renewable plants.
- Cost effective, low carbon energy solutions for enterprise customers including AMP Capital and Sunshine Coast Regional Council.
- Experienced in innovative large scale retail partnership programs e.g. the Victoria Bitter Solar Exchange program exchanging excess solar for beer using block chain technology.
- 5 Star Greenpeace rated.



# Financing across multiple channels

  
IN HOME SALES



- Over 350 active solar merchants in Australia.
- 25k solar installations financed in FY20.
- Leadership position in market.

  
VPP



- Current pilot program to run until July 2024.
- Estimated \$3.5b energy storage market by 2025<sup>1</sup>.
- Conversations with other energy retailers advanced.

  
CORPORATE

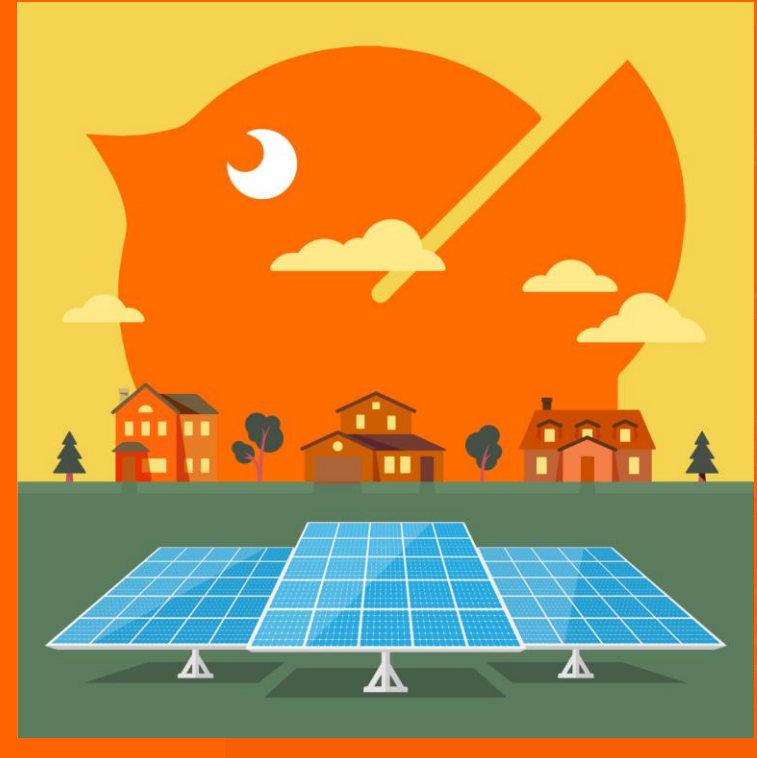


- Two year arrangement with AGL commenced in Dec-20.
- Estimated \$1.0b market by 2025<sup>1</sup>.
- **hummm** finance solutions for AGL customers to purchase combined solar and battery systems.
- Actively in discussions with other corporate energy retailers.

1. Management estimates.

# hummm<sup>®</sup>group // Moving forward

- We are on a mission to revolutionise the way people buy energy.
- 80MW of energy capacity targeted by end of FY23.
- Target of 10,000 virtual network and energy storage systems installed by end of FY23.
- Aim to be the largest VPP network in Australia.



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**Thank you //**