

LG Home Battery R_{ESU}

Life changes at times,
so your battery has to be there with you

Be Prepared with LG R_{ESU}

George Elovaris

Business Development Manager of LG Energy Solution - Residential

 **LG Energy Solution**





Contents

Be Prepared with LG RESU

01 Market Insights

- Global Market Demands & Customer Needs
- Power Outages are everywhere
- COVID 19, a new normal
- The value of security

02 Introducing LG RESU New Generations

- RESU Prime Lineup
 - RESU10H Prime
 - RESU16H Prime
- RESU FLEX Lineup
 - RESU FLEX

Growing demands for home batteries

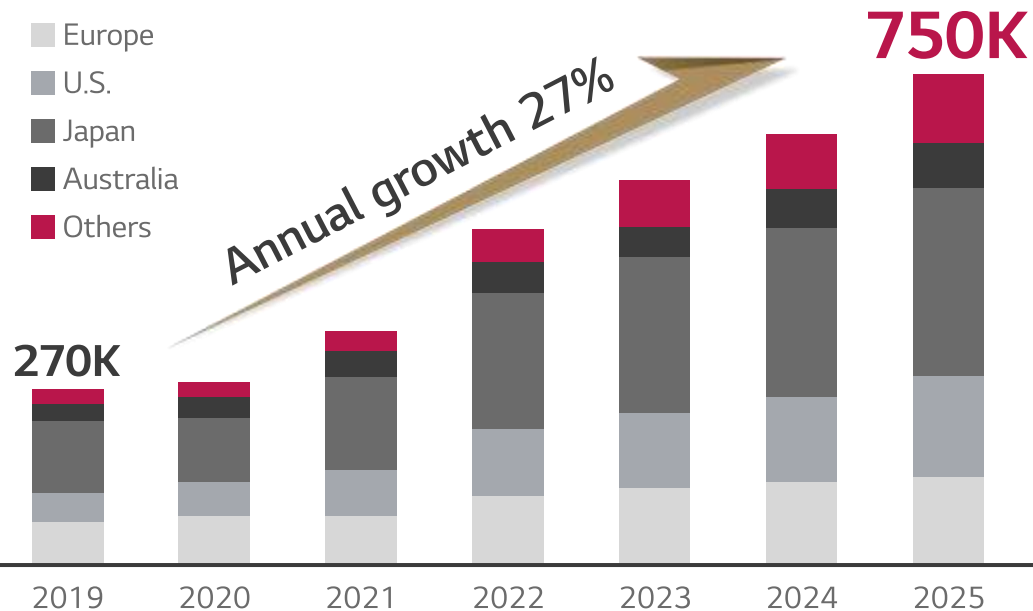
LG Home Battery RESU

Global market research indicates year over year growth for home batteries, notably with a growing need for larger battery capacities for increased energy resiliency.

Home battery market is growing

(Unit : EA)

■ Europe
■ U.S.
■ Japan
■ Australia
■ Others



Customers want more energy



Growing needs for energy self-reliance

- Increasing energy bills
- Unreliable grid power services
- Need for backup capabilities with higher power limits



More people are scaling up their systems

- 52.7% of current home battery users would like the option to increase their energy capacity

(Source : LG Chem Global Customer Research, 2019)

Customer Voices

'We are seeing a clear trend towards larger capacity batteries'

'Customers want to leave open the possibility of expanding their batteries in the future, especially those who have experienced the benefits of having batteries'

Blackouts are everywhere

Natural disasters and aged electric grid systems raise the risk of blackouts. Unreliable energy supply for homes is increasing consumer demand for emergency back up power.

25,281 blackout events
- US, 2019 (23% up from 2018)

Power outage lasted
over 30 hours, leaving 30,000
households without electricity
- Germany, 2019

About 800,000 customers
lost electricity due to PSPS
- US, 2019

**Increasing risk
of Blackouts**

Five of 11 major bushfires
were caused by failed
electricity assets
- Australia

During Hurricane Maria,
Puerto Rico was into a
total blackout
- US, 2017

More than 900,000 homes
left without power after
Typhoon Faxai
- Japan, 2019

**Increasing
demand for
home batteries**

COVID19 is the new normal

LG Home Battery RESU

COVID19 ignited a worldwide 'Stay Home' way of life. Indoor activities are increasing and how we use time at home is more critical now than ever.

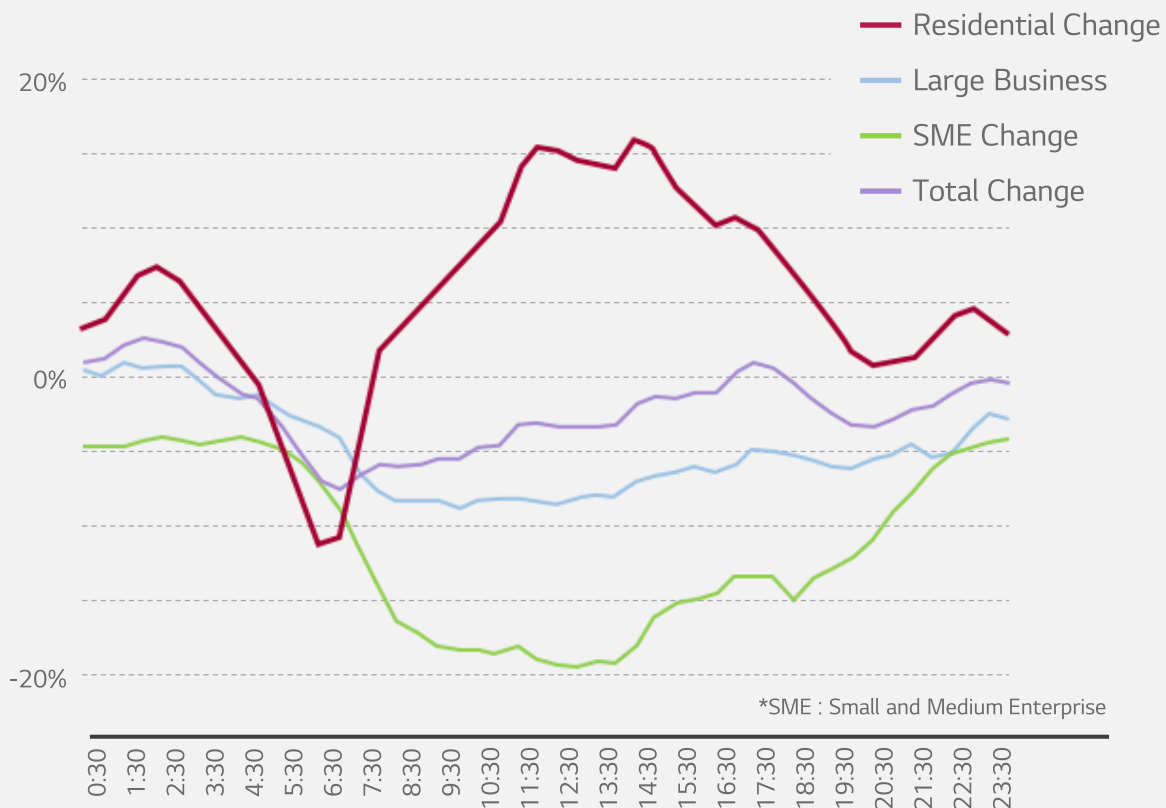


More Time at Home, More Use of Energy

During the lockdown caused by COVID19, the energy demand for residential sector increased significantly while the demand for industry and commercial sectors deeply decreased.

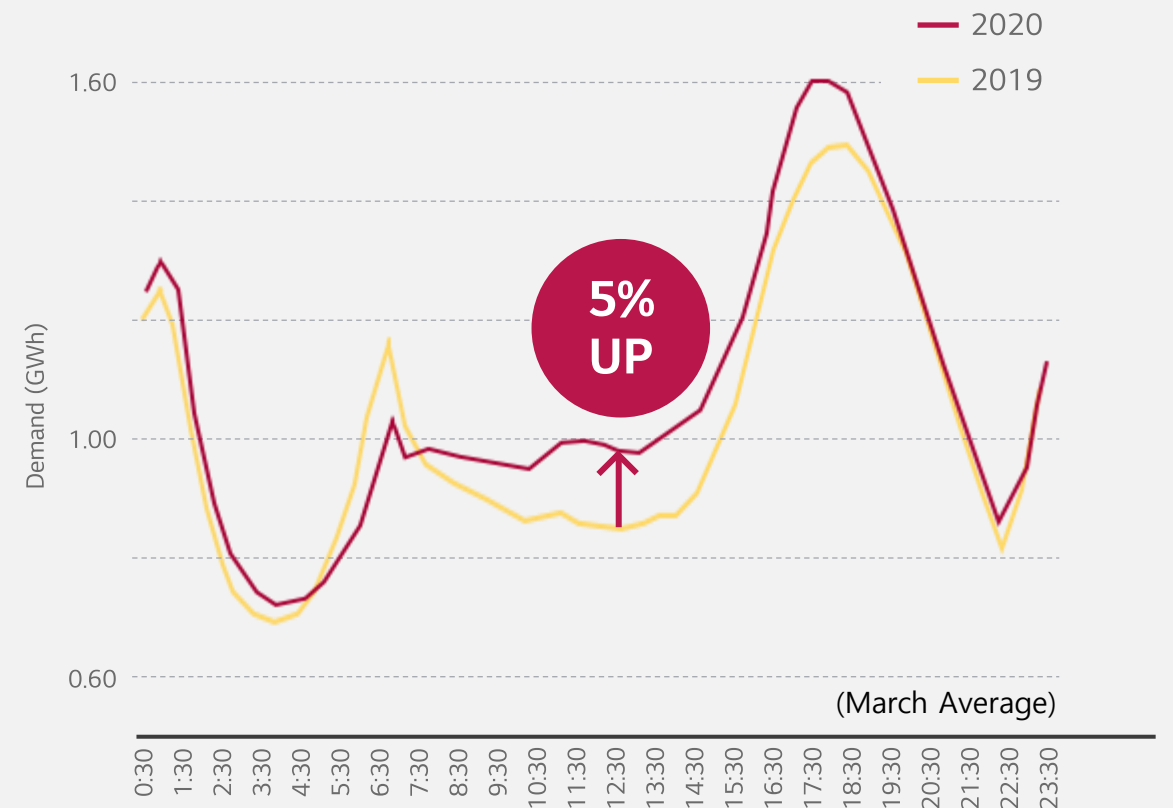
As people spend more time staying at home, the amount of electricity used at home increased and the energy usage patterns somewhat changed.

Change in Daily Energy Use by Sector



(Source: AusNet)

Increase in Residential Daily Demand



(Source : AusNet)



SECURITY Always Matters, Even in ENERGY USE



01

Introducing
Next Generation **LG RESU**

LG RESU Prime Lineup

The 3rd Generation of LG Home Battery

“
The smartest choice
for your first home battery



Release date
March, 2021

Usable Energy
9.6kWh

Power
5kW (Rated) / 7kW (Peak)

Battery Life
70% after 10 years

Scalability
Up to 2 units (19.2kWh)

Key Features



Optimal Capacity for Daily Use

Enough capacity (9.6kWh) to back up essential loads during peak time and emergency outages



Remote Battery Monitoring

Real time battery status monitoring and early diagnosis with RESU Monitor*

* LG Chem's remote battery monitoring system



Quicker & Easier Handling

The modular design enables easier transportation, handling, and installation



On-the-Spot Maintenance

The detachable Control Unit can be replaced on site, saving maintenance time and cost

RESU10H Prime

LG Home Battery RESU

**IMPROVED BATTERY PERFORMANCE,
EASIER INSTALLATION,
QUICKER MAINTENANCE**



Energy 9% ↑
Efficiency²⁾ 5.8% ↑
Lifetime 17% ↑



LG RESU10H Gen2

- Usable Energy 8.8kWh³⁾
- Efficiency²⁾ > 85%
- Retention rate 60% @10 years
- RS485 or CAN

LG RESU10H Prime

- Usable Energy 9.6kWh
- Efficiency²⁾ > 90%
- Retention rate 70% @10 years
- RS485 & CAN protocols

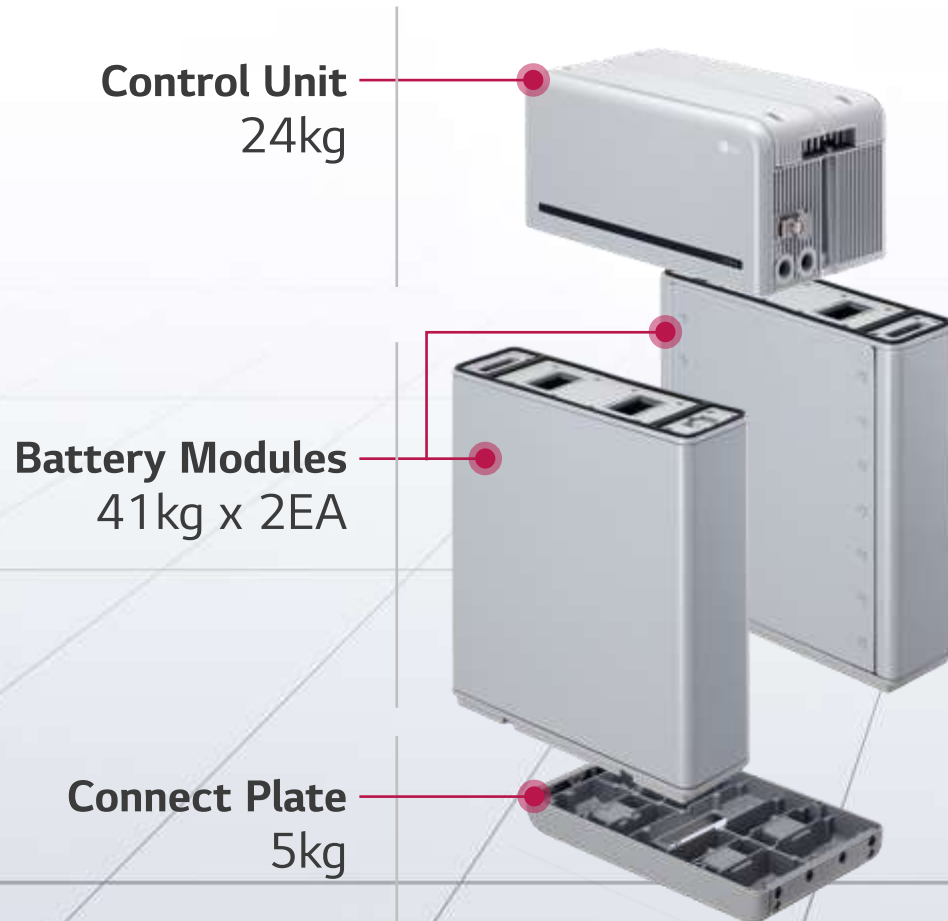
- RESU Monitor
- Modular design

NEW

RESU10H Prime

LG Home Battery RESU

With its unique modular design, RESU Gen3 can be divided into a battery control unit and two battery modules. It enables easier transportation, handling, and installation.



* May vary depending on specific conditions

Conventional

RESU Gen3

Carry & Handle



Lift needed



No lift

Workload



2~3 Installers



1~2 Installers

Aftersales Service(*)



Collect & Replace

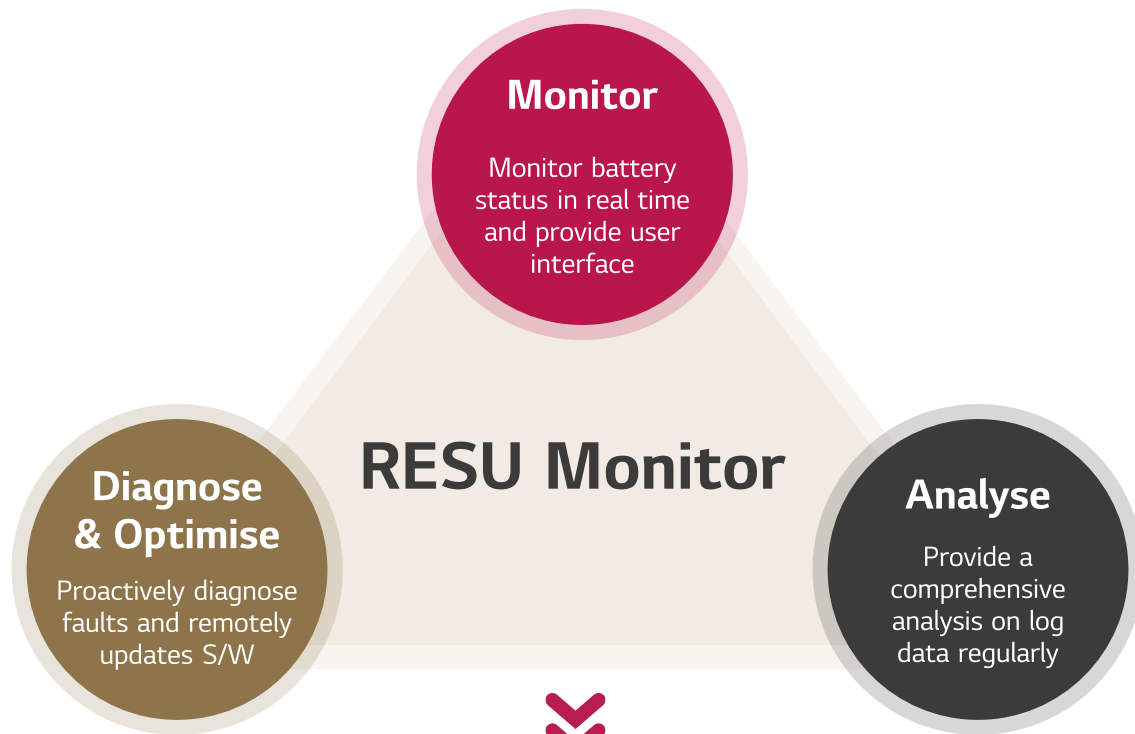


Early Diagnosis &
On-the-Spot Maintenance

RESU Monitor

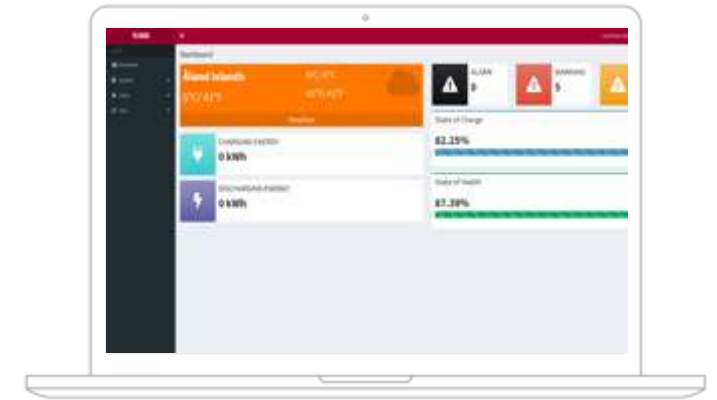
LG Home Battery RESU

LG Energy Solution's new generation RESU products are all equipped with RESU Monitor, LG Energy Solution's advanced remote monitoring system. RESU Monitor provides real-time battery conditions and can proactively detect anomalies for remote troubleshooting and quick diagnosis.



- **Save Time & Costs for Site Visits**
- **Provide Full Visibility of Battery Status**
- **Intelligent Issue Tracking and Troubleshooting**

Web-based UI
for End Customers
and Installers



App-based UI
for Installers



(Applied to all models of LG RESU's new generations – RESU10H Prime / RESU16H Prime / RESU FLEX)

RESU10H Prime

LG Home Battery RESU



Specifications

Electric	Usable Energy (DoD 100%) [kWh]		9.6 (42S1P)
	Power (Rated/Peak) [kW]		5 (14.3A) / 7 (10s)
	Voltage [V]		350~450 (max 595)
	Round-trip Efficiency [%]		> 90
	Storage Power Consumption [W]		< 0.1
Physical	Dimension [W x H x D, mm]		504 x 817 x 295
	Weight [kg]	Total	111
		Module	82 (41 x 2EA)
		Control Unit	24
		Connect Plate	5
	Installation Type		Floor-standing & Wall-mounted
	Scalability		Up to 2 units (19.2kWh / 10kW)
Environmental	Operational Temperature [°C]		-10~50
	Ingress Rating		IP55
	Warranty		70% @10 years
Operational	Communication		CAN & RS485
	Certification	Cell	UL1642
		Product	CE/FCC/RCM/IEC62619/UL1973/IEC62477

Compatible
Inverters

solaredge



SUNGROW



RESU16H Prime

LG Home Battery RESU

“

The powerful whole home backup solution with the world's largest capacity

World's
Largest
Capacity

(as a single pack)



Release date
December, 2020

Usable Energy
16kWh

Power
7kW (Rated) / 11kW (Peak) (as a single pack)

Battery Life
70% after 10 years

Scalability
Up to 2 units (32kWh)

Key Features



World's Largest Capacity

Whole home backup with world's largest capacity, 16kWh / 32kWh



Remote Battery Monitoring

Real time battery status monitoring and early diagnosis with RESU Monitor*

* LG Energy Solution's remote battery monitoring system



Quicker & Easier Handling

The modular design enables easier transportation, handling, and installation



On-the-Spot Maintenance

The detachable Control Unit can be replaced on site, saving maintenance time and cost

RESU16H Prime

LG Home Battery RESU

Up to 14kW of high power output with up to 32kWhs of battery storage provides whole home backup during daily peak hours and emergency blackouts.

32kWh (2 units) / 14kW

2.9kWh



(Fridges & Freezers)

15.6kWh



(Heating & Cooling)

10.3kWh



(Water Heating)

**Fully cover an
average daily
electricity use**



2.9kWh
(Lighting)



1.6kWh
(Cooking)



6.6kWh
(Appliances)

RESU16H Prime

LG Home Battery RESU



Specifications

Electric	Usable Energy (DoD 100%) [kWh]		16 (70S1P)
	Power (Rated/Peak) [kW]		7 (20A) / 11 (10s)
	Voltage [V]		350~450 (max 595)
	Round-trip Efficiency [%]		> 90
	Storage Power Consumption [W]		< 0.1
Physical	Dimension [W x H x D, mm]		504 x 1,086 x 295
	Weight [kg]	Total	159
		Module	130 (65 x 2EA)
		Control Unit	24
		Connect Plate	5
	Installation Type		Floor-standing
Environmental	Scalability		Up to 2 units (32kWh / 14kW)
	Operational Temperature [°C]		-10~50
	Ingress Rating		IP55
Operational	Warranty		70% @10 years
	Communication		CAN & RS485
	Certification	Cell	UL1642
		Product	CE/FCC/RCM/IEC62619/UL1973/IEC62477

Compatible
Inverters



Competitive Advantages

Industry's largest battery and high-power power the whole home more effectively

LG RESU 16H



16kWh

Usable Energy

13.5kWh

7kW
(Peak 11kW)

Power

5kW

34kWh / 14kW

Scalability (x2)

27kWh / 10kW

Modular type

Installation

Pack type

RESU Monitor &
On-the-Spot Maintenance

Maintenance

-

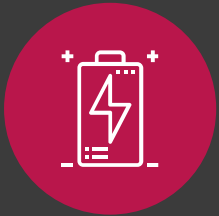
Tesla Powerwall



Ultimate Value LG RESU is Offering

LG Home Battery RESU

“
**MAXIMUM SECURITY
FOR ENERGY USE**



More Powerful

Large capacity and high power batteries realized by industry's highest energy density



More Sustainable

Proactive efforts for responsible and fair cobalt procurement



More Customer-oriented

Reflection of customers' voice from the beginning of product development process

Life changes at times, but LG RESU will stand by you and your family

Be Prepared with LG RESU

LG Home Battery RESU



LG Energy Solution

LG Energy Solution Australia Pty Ltd, Unit 12, 35 Dunlop Rd, Mulgrave, VIC 3170 | Tel. 1300 178 064 | www.lghomebattery.com.au/

Copyrights © 2020 LG Energy Solution. All Rights Reserved.

George Elovaris

+61 413 011 069

gelovaris@lgensol.com

LG Home Battery R_{ESU}

 **LG Energy Solution**