

LG Chem Lithium-ion Battery Limited Warranty

RESU7H / 10H Battery Storage System

This limited warranty (hereinafter "Warranty") specified below applies to LG Chem Lithium-ion batteries and the Accessory Components (hereinafter "Products") supplied by LG Chem, Ltd. (hereinafter "LGC or Seller") to End-user (hereinafter "Buyer") through Authorized Reseller

1. Purpose

The primary purpose of this Warranty is to clearly define the matters related to warranty policy of Products.

2. Warranty Condition

2-1. Warranty Period

The Performance Warranty for the Products is valid for 10 years from the initial (first) installation date (the "Term of Performance Warranty").

2-2. Limitation of Warranty scope

LGC's liability under this Warranty shall be limited to replacement, repair, refund and compensation. Replaced or repaired Products shall be warranted for the remainder of the original Term of Performance Warranty. In any event, the replacement shall not justify the renewal of the Term of Performance Warranty.

2-3. Exclusion of Warranty

Damage to the Products resulting from any of following activities is NOT covered by this Limited Warranty:

- Improper transportation, storage, installation or wiring by Buyer
- Modification, alteration, disassembly, repair or replace by someone other than a personnel certified by LGC
- Noncompliance with LGC's official installation manual
- External influences including unusual physical or electrical stress (power failure surges, inrush current, lightning, flood, fire, accidental breakage, etc.)
- Use of an incompatible inverter, rectifier or PCS.

2-4. Warranty Claim

Buyer shall contact installer directly for any warranty claims in order to avoid additional problems in the products.

Note. Products are unavailable to protect itself from the self discharge in condition of shut down mode.

3. Performance Warranty (Standard)

LGC warrants and represents that the Product retains at least 60% of Nominal Energy for the either 10 years after the date of the initial installation or for a minimum Energy Throughput as per the table below (whichever comes first) when the battery system is operated under a normal use followed by the specification and the manual provided by LGC.

The term "Nominal Energy" herein means the initially rated capacity of the Products as printed on the label of the Products. The precondition of the valid 10year Performance Warranty shall be as follows:

- The ambient temperature during the operation of the Products shall not fall below -10°C or exceed 45°C
- The energy throughput for (10) years is less than values in table below:

Product Name	Nominal Energy	Energy Throughput
RESU7H	7.0kWh	19.6MWh
RESU10H	9.8kWh	27.4MWh

Capacity measurement condition

- Ambient temperature: 25~30 °C
- Initial battery temperature from BMS: 25~30 °C

- Charging/discharging method
 - Charge: (0.2)CC/CV (Constant voltage: RESU7H_BPI(126)V/ RESU10H_BPI(176.4)V, Cut-off current (0.05)C)
 - Discharge: (0.2)CC (Cut-off voltage: RESU7H_BPI(90)V/ RESU10H_BPI(126)V)
 - Current at (0.2)C: (12.6)A
- Current and voltage measurement at battery DC side

4. Out of Warranty Policy

Products damage which is not caused by seller, LGC shall provide charged service, including all the expenses of such as material cost, labor cost, warehouse cost, transportation cost, customs duties, analysis cost, management cost, corporate profits, disposal expense(If necessary) and so on.

5. About Service Products/Parts

Service products/parts are able to be used as new or refurbished condition which performance is equal to or higher than defective Products and guaranteed by LGC.

In the event the Products are not available in the market anymore, LGC, at its option, may replace it with different kind of product with equivalent functions and performances or refund the remaining annually depreciated value of the purchase price of the Products during the Term of Performance Warranty as the Compensation Scheme below. The purchase price mentioned hereinabove means the list price actually paid by the Buyer for the purchase.

- Compensation Scheme -

- CLASS I : 100% of the purchase price from the initial installation date to 24th month
- CLASS II : 72% of the purchase price from 25th to 36th month
- CLASS III : 58% of the purchase price from 37th to 48th month
- CLASS IV : 44% of the purchase price from 49th to 60th month
- CLASS V : 30% of the purchase price from 61st to 72nd month
- CLASS VI : 16% of the purchase price from 73rd to 84th month
- CLASS VII : 6% of the purchase price from 85th to 96th month
- CLASS VIII: 4% of the purchase price from 97th to 108th month
- CLASS IX : 2% of the purchase price from 109th to 120th month
- No warranty of performance will be provided from the 121st month

6. Claim Payment Policy

Claims under this Warranty must be made by notifying the Authorized Reseller from whom the Product was purchased. For a Warranty Claim to be processed, it must include following items;

- (1) Proof of the original purchase
- (2) Description of the alleged defect(s) from authorized service center
- (3) The relevant Product's serial number and the initial installation date

Buyers who are unable to contact the Authorized Reseller from whom the Product was purchased should contact LGC at the Q&A page of the LGC Partner Website <http://www.lgesspartner.com>

7. Applicable Law

The Warranty is subject to the law of Australian State. Products come with guarantees that cannot be excluded under the Australian Consumer Law. The Buyer is entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. The Buyer is also entitled to have the goods repaired or replaced if the Products fail to be of acceptable quality and the failure does not amount to a major failure. The benefits to the consumer given by the warranty are in addition to any other rights and remedies of the consumer under a law in relation to the goods or services to which the warranty relates. This warranty only applies to the Buyer who have purchased the Products for their own use.

LG Chem Lithium-ion Battery Limited Warranty

RESU3.3 / RESU6.5 / RESU10 Battery storage system

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3. Performance Warranty (Standard)

LGC warrants and represents that the Product retains at least 60% of Nominal Energy for the either 10 years after the date of the initial installation or for a minimum Energy Throughput as per the table below (whichever comes first) when the battery system is operated under a normal use followed by the specification and the manual provided by LGC.

The term "Nominal Energy" herein means the initially rated capacity of the Products as printed on the label of the Products.

The precondition of the valid 10year Performance Warranty shall be as follows:

- (i) The ambient temperature during the operation of the Products must not fall below -10°C or exceed 45°C
- (ii) The energy throughput is less than values in table below:

Product Name	Nominal Energy	Energy Throughput
RESU3.3	3.3kWh	8.2MWh
RESU6.5	6.5kWh	16.1MWh
RESU10	9.8kWh	24.3MWh

Capacity measurement condition

- Ambient temperature: 25~30°C
- Initial battery temperature from BMS: 25~30°C
- Charging/discharging method
 - Charge: (0.2)CC/CV (Constant voltage (58.8)V, Cut-off current (0.05)C)
 - Discharge: (0.2)CC (Cut-off voltage (42)V)
 - Current at (0.2)C: (12.6)A (RESU3.3), (25.2)A (RESU6.5), (37.8)A (RESU10)
- Current and voltage measurement at battery DC side

4. Out of Warranty Policy

Products damage which is not caused by seller, LGC shall provide charged service, including all the expenses of such as material cost, labor cost, warehouse cost, transportation cost, customs duties, analysis cost, management cost, corporate profits, disposal expense (If necessary) and so on.

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In the event the Products are not available in the market anymore, LGC, at its option, may replace it with different kind of product with equivalent functions and performances or refund the remaining annually depreciated value of the purchase price of the Products during the Term of Performance Warranty as the Compensation Scheme below. The purchase price mentioned hereinabove means the list price actually paid by the Buyer for the purchase.

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For a Warranty Claim to be processed, it must include following items;

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LG Chem Ltd

RESU Installation Checklist prior to contacting LG Chem technical support

Please tick the box after checking the battery condition by following the directions in the installation manual

	(YES)	(NO)
1. Is the internal circuit breaker able to be turned ON & OFF?	_____	_____
2. Do the battery LED lights illuminate?	_____	_____
3. Is the warning or Fault LED light on?	_____	_____
4. For RESU LV, what is the DC voltage with breaker ON at terminals?	_____	V
For RESU HV, what is the DC voltage of the battery at Fuse location?	_____	V
(Note for HV the top cover must be removed to measure voltage)		
5. Does the inverter recognize the battery BMS?	_____	_____
6. Is there any fault code indication on the inverter screen?	_____	_____
7. What is the fault code?	_____	_____
8. Has the inverter ever charged or discharge the battery?	_____	_____
9. Is AC grid and meter/CT installed correctly for the inverter?	_____	_____

Important – If system is not working you must turn off internal battery breaker (also the AUX power switch RESU7H and RESU10H-SEG models) to ensure no self-discharge occurs whilst unit is not in use.

Other items to double check before contacting LG Chem

RESU LV

1. Ensure data cable is in the correct port (near dipswitches)
2. Ensure that the dipswitch locations are in the correct positions (see manual)
3. Ensure correct inverter firmware is loaded on inverter

RESU HV

1. Ensure data cable has been wired correctly between inverter and battery
2. Ensure that the AUX power is turned ON during testing (SEG model)
3. Ensure correct inverter firmware is loaded on inverter

 LG Chem Service & Support Team

P. 1300 178 064

E. essserviceau@lgchem.com

W. <http://www.lgesspartner.com>

LG Chem Ltd RMA Warranty Process

Effective from 1st August 2017

1. An installer calls LG Chem technical support team whilst onsite (**1300 178 064**).
 - *Please ensure that the installer has loaded the approved inverter firmware and read the battery installation manual before calling.*
2. The installer should have a copy of a blank LG Chem **RMA form** to be filled out onsite.
3. LG Chem will then fault find and assess the system condition over the phone with the installer.
4. If a product issue under warranty conditions is found, the installer is to complete the RMA form, provide any additional information that the technician may require like photos and inverter log data and email through the details to essserviceau@lgchem.com
 - *Blown battery fuses are not classed as a product failure under warranty and a charged service can be provided to potentially resolve these issues, issues with Battery Protection Units (BPU's) are also not generally a product fault and need to be assessed by our technicians in our lab before any replacement batteries under warranty are sent.*
5. Under warranty conditions once the approved RMA form is received, LG Chem will send the replacement battery to the nominated address on the RMA form at LG Chem's cost.
6. The installer will visit the site with the replacement battery to swap it over, put the suspect battery in the new box and take back to their nominated office address.
7. LG Chem will arrange pickup of the suspect battery from the nominated office address at LG Chem's cost.
 - *Please ensure the battery is **carefully packaged** in the **replacement battery box** and a copy of the completed RMA form from LG Chem is attached on the outside the box.*
8. Once the suspect battery has been received by LG Chem the installer may raise an invoice. LG Chem may reimburse reinstallation costs as per the following schedule for approved battery faults under warranty conditions.
9. RMA process is complete.

Terms & Conditions

In the event a LG Chem technician carries out an inspection on a returned unit and the product is operating to the manufacturer specifications and no fault is found, the customer may be liable for an evaluation fee plus any additional costs incurred to evaluate and transport the unit.

Additional information

- LG Chem strongly recommends that all battery systems be connected to the internet and registered through the lgesspartner.com website.
- For further information on registration, installation instructions and technical notes please visit the LG Chem partner website via the installers link below -
 - <http://www.lgesspartner.com/au/front/product/productInfo.dev>

LG Chem Ltd**RMA Replacement Reimbursement Rate***Effective from 1st August 2017*

If an LG Chem RESU battery, RESU PLUS combiner box or Standalone battery module has failed and deemed to be faulty under warranty by LG Chem we may choose to replace the product and the below replacement service reimbursement fee will be paid to the company carrying out the replacement.

Country	Product	RMA Rate
Australia	LG Chem RESU range	\$200 AUD ex GST
New Zealand		\$200 NZD ex GST

Please note - LG Chem must be informed via email prior to any replacement if there is concerns that there will be additional costs involved with the replacement and additional costs will not be paid unless agreed by LG Chem via email prior to the replacement. LG Chem reserve the right to arrange other means of replacement if the above rates are not acceptable for the company carrying out the replacement.

LG Chem will cover costs involved with shipping the new product to the designated location and to pick up the faulty product from the company that has replaced the product.

All other costs incurred for re-installation, travel, removal/repacking the faulty product and logistics co-ordination is agreed to be covered in the approved RMA rate.

To make a claim for reimbursement please email an invoice to LG Chem which must have the RMA number referenced to essserviceau@lgchem.com

Payments can take up to 20 business days to process.

More information can be found at the LG Chem ESS partner website or call our service & tech support team on 1300 178 064.

LG Chem Service & Support Team

P. 1300 178 064

E. essserviceau@lgchem.com

W. <http://www.lgesspartner.com>

LG Chem RMA Application Form

FORM TO BE FILLED OUT AFTER A CALL TO LG CHEM TECH SUPPORT AT AN ONSITE EVALUATION, THEN EMAILED TO essserviceau@lgchem.com

END USERS DETAILS

FIRST NAME	_____	ADDRESS	_____
LAST NAME	_____		_____
PHONE NUMBER	_____		_____
MOBILE NUMBER	_____	SUBURB	_____
EMAIL ADDRESS	_____	STATE	_____ POST CODE _____

INSTALLERS DETAILS

BUSINESS NAME	_____	EMAIL ADDRESS	_____
CONTACT NAME	_____	REPLACEMENT /	_____
PHONE NUMBER	_____	RETURN SHIPPING	_____
MOBILE NUMBER	_____	ADDRESS	_____
INSTALLERS NAME	_____	SUBURB	_____
INSTALLERS MOBILE	_____	STATE	_____ POST CODE _____

BATTERY & SYSTEM DETAILS

BATTERY MODEL	_____	INVERTER MAKE	_____
BATTERY SERIAL #	_____	INVERTER MODEL	_____
BATTERY DC VOLTAGE	_____	INVERTER FIRMWARE VERSION	_____
INSTALLATION DATE	_____	ORIGINAL SUPPLIER	_____

FAULT DESCRIPTION & COMMENTS ON SYSTEM

RMA APPLICATION LODGEMENT DETAILS

NAME OF PERSON	_____	SIGNATURE / DATE	_____ / _____
MAKING CLAIM	_____		

** By signing the above you agree that information above is correct and if/when you receive a replacement battery you will assist LGC to get the faulty battery back to our facility for assessment.*

REPLACEMENT BATTERY DETAILS (internal use only)

RMA NUMBER	_____	DATE RMA CREATED	_____
NEW MODEL #	_____	DATE REPLACEMENT SENT	_____
NEW SERIAL #	_____	DATE FAULTY UNIT RECEIVED BY LGC	_____