APPROVED BATTERY OPTIONS STATEMENT

GOODWE
YOUR SOLAR ENGINE

Battery Brand	Battery Series	Battery Model	Inverter Series											
			ES	EM	BP	SBP	ET	BT	EH	BH	AES	EHB	BTC	ABP
BYD	Battery-Box Premium HVM*1	HVM 8.3							●	●		●		
		HVM 11.0					●	●	●	●		●		
		HVM 13.8					●	●	●	●		●		
		HVM 16.6					●	●	●	●		●		
		HVM 19.3					●	●	●	●		●		
		HVM 22.1					●	●	●	●		●		
	Battery-Box Premium HVS*1	HVS 5.1					●	●	●	●		●		
		HVS 7.7					●	●	●	●		●		
		HVS 10.2					●	●	●	●		●		
		HVS 12.8					●	●				●		
	Battery-Box Premium HVL*1	HVL 12.0									●			●
		HVL 16.0									●			●
		HVL 18.0									●			●
		HVL 20.0									●			●
		HVL 24.0									●			●
		HVL 32.0									●			●
	Battery-Box Premium LVS*3	LVS 4.0	●	●	●	●								
		LVS 8.0	●	●	●	●								
		LVS 12.0	●	●	●	●								
		LVS 16.0	●	●	●	●								
		LVS 20.0	●	●	●	●								
		LVS 24.0	●	●	●	●								
	Battery-Box Premium LVL*3	LVL 15.4	●	●	●	●								
	Battery-Box Pro*2			●	●	●								
	Battery-Box Res*2			●	●	●								
	Battery-Box LV*3		●	●	●	●								
	Battery-Box HV*4						●	●	●	●				
	BATTERY-BOX COMMERCIAL	C90											●	

Note:

1. ARM firmware versions 11 and above are compatible with Battery-Box Premium HVM/HVS/HVL.

2. ARM firmware versions 00 and above are compatible with Battery-Box Pro/Res Series.

3. ARM firmware versions 07 and above are compatible with Battery-Box LV/Battery-Box Premium LVS/LVL Series.

4. ARM firmware versions 07 and above are compatible with Battery-Box HV Series. Please note that the normal voltage of Battery-Box HV Series must be within the Battery Voltage Range of GoodWe inverters.

Battery Brand	Battery Series	Battery Model	Inverter Series										
			ES	EM	BP	SBP	ET	BT	EH	BH	A-ES	EHB	ABP
LG	RESU LV	RESU 6.4 EX[1]	●	●		●							
		RESU 3.3[1]	●	●									
		RESU 6.5[1]	●	●		●							
		RESU 10[1]	●	●		●							
		RESU 13[2]	●	●		●							
	RESU HV	RESU10H Type-R[3]									●	●	●

Note:

1. ARM firmware versions 00 and above are compatible with RESU 6.4 EX/3.3/6.5/10.
2. ARM firmware versions 07 and above are compatible with RESU 13.
3. When A-BP is compatible with LG RESU10H Type-R in use, the micro-grid applications are not supported.
4. Recommendations for connecting RESU10H Type-R to A-ES/A-BP Series:
   ❶ Connection of RESU10H Type-R batteries in parallel is not supported.
   ❷ For first inverter operation with LG battery, the inverter must be powered by the grid for the LG battery to be activated.
   ❸ LG RESU10H Type-R battery Max discharge power is 5kW. Please ensure backup load peak power does not exceed 5 kVA in backup mode. Loads with large inrush current (such as inductive loads including motors) may lead to output failure on backup side.
   ❹ Depending on real-time battery condition, such as SOC, battery temperature etc, the battery output power may not be able to support backup load, which could lead to system failure. If this occurs, both battery and backup supply will cease. Power will resume if there is solar power available.
   ❺ LG battery needs time to switch from charge to discharge up to the preset power. Quickly switching from on-grid mode to backup mode could fail if backup load power is higher than the max power ramp-up the battery can sustain within a limited time.

Battery Brand	Battery Series	Inverter Series								
		ES	EM	BP	SBP	ET	BT	EH	BH	EHB
PYLON[5]	US2000[1]	●	●	●	●					
	US3000[2]	●	●	●	●					
	POWERCUBE-H1-48[3]					●	●	●	●	
	FORCE-H1[4]					●	●	●	●	●
	FORCE-H2[4]					●	●	●	●	●
	US2000C[1]	●	●	●	●					
	US3000C[2]	●	●	●	●					

Note:

1. ARM firmware versions 00 and above are compatible with US2000/US2000C Series.
2. ARM firmware versions 07 and above are compatible with US3000/US3000C Series.
3. ARM firmware versions 07 and above are compatible with POWERCUBE-H1-48 Series. Please note that the voltage of POWERCUBE-H1-48 Series must be within the Battery Voltage Range of GoodWe inverters. Maximum 8 units for EH/BH, and 11 units for ET/BT.
4. ARM firmware versions 14 and above are compatible with FORCE-H1/H2 Series.
5. Only PYLON is approved for connection to the old BP model with SN starting with "3".

Specific Terms

Procedures for approved use of new lithium batteries not listed herein

1 GoodWe conditionally provides CAN communication protocol of BMS, upon request.

2 Based on the communication protocol provided by GoodWe, the battery supplier is required to firstly test compatibility with GoodWe inverters.

3 GoodWe shall further conduct and verify the compatibility test with the new battery to determine the final approval. The list is subject to changes and updates will be published from time to time. Please contact GoodWe for technical consultation on new batteries not on the approved list to verify if any compatibility test is required. Any unauthorized battery connections made without prior authorization from GoodWe will NOT be covered by GoodWe limited warranty.

* Other Terms

4 Users are reminded that although GoodWe products ES, EM, BP and SBP series are technically compatible and capable of achieving good results with lead-acid batteries, Lithium-ion batteries with direct communication to the charging device are the preferred battery choice. Use of lead-acid or other similar batteries requires experienced and precise design, installation and maintenance to keep the battery working functionally. Failing to do may lead to battery failure, compatibility issue or other damages to the solar system. Users should first contact GoodWe for technical consultation and obtain official confirmation prior to installing any battery not included in the official published compatibility list, including but not limited to lead-acid battery.

5 Unless there is a specific agreement between GoodWe and the battery manufacturer, for all battery packs NOT listed herein but have completed the compatibility test with GoodWe inverters, the installer/system integrator shall be responsible for battery safety, as well as system performance and reliability. GoodWe shall guarantee proper inverter performance under normal working conditions within the standard warranty term and provide limited technical support if applicable. However, GoodWe shall assume no liability on any system malfunction or any incurred loss or damages whatsoever.

6 Failing to follow the instructions above or failing to provide correct battery information will render GoodWe's warranty null and void. GoodWe shall NOT be liable for any consequences arising therefrom. GoodWe reserves the right of final interpretation.