






Warranty / LTSA / CMA

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 Client	WOLONG
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三份协议关系矩阵（中英文对照）

项目	Warranty（质保协议）	LTSA（长期服务协议）	CMA（容量维护协议）
合同性质 Contract Nature	产品 & 性能保证 Product & Performance Guarantee	运维 & 可用率承诺 O&M & Availability SLA	容量维持/增容协议 Capacity Retention / Augmentation
责任主体 Responsible Party	OEM / 设备制造商 OEM / Manufacturer	运维服务商（可为 OEM或第三方） O&M Service Provider (OEM or 3rd Party)	OEM或专门的容量服务提供方 OEM or Capacity Service Provider
覆盖范围 Scope	材料缺陷、工艺缺陷、容量/RTE性能曲线 Defects +	24/7监控、预防/纠正性维护、软件升级、SLA保证 Monitoring,	当容量因自然衰减低于门槛时，提供补装/替换 Augmentation or replacement when

项目	Warranty (质保协议)	LTSA (长期服务协议)	CMA (容量维护协议)
	Capacity/RTE Performance	PM/CM, Software Updates, SLA	capacity falls below threshold
核心指标 KPIs	容量保持率 (SoH)、回路效率 (RTE) Capacity Retention, RTE	可用率 ($\geq 98\%$ typical) Availability ($\geq 98\%$ typical)	容量恢复至合同水平 Capacity restored to baseline
触发条件 Triggers	产品缺陷或容量/RTE 低于保证曲线 Product defect or capacity/RTE below curve	服务不达标、停机、响应超时 SLA shortfall, downtime, response failures	年度测试显示容量低于合同门槛 Annual test shows capacity shortfall
费用机制 Payment Model	一次性或延保费用 One-off / Extended Warranty fee	年度服务费 + 奖惩机制 Annual Fee + LD/Bonus	年费 (含未来增容成本) 或单次计费 Annual Fee (covering augmentation) or per-event
责任边界 Responsibility Boundary	保证设备质量与性能 Ensure equipment quality & performance	保证日常运维和可用率 Ensure daily O&M and availability	保证容量在寿命期维持在目标水平 Ensure long-term usable capacity
期限 Term	常见 5-15 年 (depending on OEM)	常见 5-20 年 (可续签)	常见 10-20 年, 通常与性能质保对齐
典型交付 Deliverables	修复/更换 Repair/Replace	运维报告、SLA补偿 Reports, SLA LDs	补装新电池模块或整簇 Augmentation (modules/racks)
旧电池处理 EOL Handling	OEM回收/更换 OEM Recycle/Replace	不涉及 Not included	必须合规回收, 提供证明 Certificates of Recycling
法律合同关系 Legal Relation	隶属供货合同/独立质保合同 Supply Contract / Warranty Agreement	独立运维合同 Stand-alone Service Agreement	独立或附属合同, 常称 CMA Stand-alone or side CMA

Warranty / LTSA / CMA – Text Flow Diagram

[Warranty （质保协议 / Product & Performance Warranty ）]

↓ Trigger 触发条件：

- Product defect / 材料或工艺缺陷
- Capacity below guaranteed curve / 容量低于性能曲线
- RTE below threshold / 回路效率低于门槛

↓ Remedy 解决方式：

- Repair or replace defective packs / 修复或更换故障电池
- Performance warranty obligations / 性能保证义务

→ Responsibility 主体：OEM / Manufacturer

[LTSA （长期服务协议 / Long-Term Service Agreement ）]

↓ Trigger 触发条件：

- Availability < SLA (e.g. 98%) / 可用率低于合同约定
- Response time not met / 响应时间不达标
- Preventive/Corrective maintenance missed / 维护不到位

↓ Remedy 解决方式：

- Service credits or LDs (Liquidated Damages) / 服务补偿或违约金
- Ensure continuous O&M support / 保证运维连续性

→ Responsibility 主体：Service Provider (OEM or 3rd Party)

[CMA （容量维护协议 / Capacity Maintenance Agreement ）]

↓ Trigger 触发条件：

- Annual capacity test shows < threshold (e.g. 80%) / 年度容量测试低于门槛

- SoH degradation beyond agreed curve / 衰减超过合同曲线

↓ Remedy 解决方式：

- Augmentation (add new modules/racks) / 容量补装（新增模块/电池簇）
- Replace degraded packs if needed / 必要时整簇更换
- Maintain usable capacity at baseline / 恢复到合同容量

→ Responsibility 主体：OEM or Capacity Service Provider

LONG-TERM SERVICE AGREEMENT (LTSA)

for Utility-Scale LFP Battery Energy Storage System

Date: ____

LTSA No.: ____

1. Parties

This Long-Term Service Agreement ("**Agreement**" or "**LTSA**") is entered into by and between:

- **Owner / Client:** ____ (the "**Owner**"), a ____ organized under the laws of ____, having its principal place of business at ____.
- **Service Provider:** ____ (the "**Provider**"), a ____ organized under the laws of ____, having its principal place of business at ____.

Owner and Provider are each a "**Party**" and collectively the "**Parties**".

2. Purpose & Contracting Structure

2.1 This LTSA covers **operations & maintenance services** for the battery energy storage system ("**BESS**") installed at ____ (**Site Address, City, State, ZIP**) (the "**Site**"), including monitoring, preventive and corrective maintenance, spare parts management, reporting, software/firmware updates, cybersecurity, compliance support, and performance-linked availability service levels.

2.2 **Separate Instruments** (not merged into this LTSA's liability cap):

- **(A) Warranty:** Product quality & **performance warranty** (capacity/efficiency curves, defect remedies, testing methods) is governed solely by the **separate Warranty Agreement** between Owner and the original equipment manufacturer/integrator ("**OEM**").
- **(B) Capacity Maintenance Agreement (CMA):** Long-term **capacity retention / augmentation** obligations (trigger thresholds, augmentation methods, price/rate formulae, planned windows) are governed solely by the **separate CMA**.

2.3 In case of conflict: Warranty and CMA prevail on matters expressly within their scopes (defect/performance and capacity maintenance). This LTSA does **not** limit or substitute the OEM's obligations under Warranty or Provider's obligations under CMA.

3. Definitions

"Availability" means the percentage of time the BESS is able to perform **contracted functions** per Section 9, excluding **Permitted Exclusions**.

"BESS" means the LFP battery racks/modules, battery enclosures/containers, PCS, transformers, switchgear, auxiliary systems (HVAC, fire suppression), BMS/EMS/SCADA interfaces at the Site.

"Corrective Maintenance" means unscheduled work to restore functionality after failure.

"Preventive Maintenance" means scheduled inspection, testing, calibration, cleaning, tightening, replacements per Schedule 4.

"SLA" means service level commitments in Section 9/Schedule 3.

"Permitted Exclusions" has the meaning in Section 9.3 (e.g., grid outages, curtailment, Owner-side issues, Force Majeure, Scheduled Maintenance).

Other capitalized terms as defined herein.

4. Term

4.1 **Initial Term:** ____ years from the **Commercial Operation Date (COD)** or **Final Acceptance (FAC)**, whichever first occurs, unless otherwise stated.

4.2 **Renewals:** Up to ____ optional renewal terms of ____ years each, at mutually agreed pricing & terms not less favorable than market standards for comparable services.

4.3 This LTSA shall commence on the Effective Date; **SLA counting** starts at COD/FAC per Section 9.1.

5. Services Scope (What Provider Must Do)

Provider shall furnish all labor, tools, consumables, test instruments, remote monitoring and expertise to deliver the services below. Detailed task lists and frequencies are in **Schedule 1 (Scope of Services)** and **Schedule 4 (Maintenance Plan)**:

- **5.1 24×7 Remote Monitoring & Alarming:** health, SoH/SoC telemetry, PCS/BMS status, HVAC, fire system, auxiliary power; event triage & dispatch.
- **5.2 Preventive Maintenance:** per OEM manuals & Schedule 4 (annual cabinet inspections; quarterly thermal scans; torque checks; HVAC filters; firmware health; fire system supervised checks; sensors calibration; UPS backup checks; grounds/bonding verification; enclosure integrity).
- **5.3 Corrective Maintenance:** fault isolation, repair/replace failed components, return to service; incident reporting per Schedule 5.
- **5.4 Software/Firmware Lifecycle:** plan, test, deploy, verify **BMS/PCS/EMS/SCADA** updates; roll-back plan; change logs; cybersecurity patches.
- **5.5 Spares & Consumables: VMI or Consignment** model per **Schedule 6**; critical spares list (contactors, fans, HVAC parts, sensors, auxiliary PSUs, breakers, cabling); min/max levels; replenishment SLA.
- **5.6 Compliance & HSE:** work practices per OSHA, NFPA 70/70E, **NFPA 855**, local fire code, UL 9540/9540A related site rules, lockout/tagout, hot-work permits; site-specific JSAs & job hazard analyses.
- **5.7 Regulatory & Utility Interface:** support for utility/ISO testing windows, audits, meter witness tests, NERC-like data needs as applicable.
- **5.8 Reporting & Reviews:** monthly health & KPI report; quarterly performance review; annual lifecycle/soiling/thermal & loss analysis; recommendations.
- **5.9 Training:** annual Owner operator refresher training; HSE & emergency drills.
- **5.10 End-of-Life / Decommissioning Support:** technical procedures for safe de-energization, packaging, transport and hand-off to qualified recyclers per Section 16.

Explicitly Out-of-Scope (unless Change Order): capacity augmentation, replacement due to normal degradation, product defect remedies (Warranty), Owner network/IT issues, site civil works, major retrofit not safety-critical.

6. Owner Responsibilities

Provide site access, energized/de-energized windows, utility coordination, IT/VPN access, EMS credentials; maintain ambient conditions within OEM specs; refrain from operating outside contractual duty cycle/window unless mutually agreed; maintain insurance required of Owner; pay Fees timely; implement Provider's reasonable safety recommendations.

7. Interface with Warranty & CMA

7.1 **Warranty:** Owner will enforce OEM Warranty directly with OEM. Provider shall coordinate troubleshooting and provide technical evidence to support Owner's Warranty claims at no additional charge. Any Warranty remedy work is (i) performed by OEM or (ii) by Provider as OEM's authorized agent; time spent is **not chargeable** to Owner.

7.2 **CMA:** If a separate CMA exists, Provider shall coordinate service windows and test protocols so CMA works do not compromise SLA measurements.

Augmentation activities and costs are governed by CMA only.

8. Data, Telemetry & Cybersecurity

8.1 **Data Ownership:** All BESS operational data (telemetry, alarms, logs, SoH/SoC, throughput, efficiency) belongs to Owner. Provider gets a non-exclusive license to use data for service delivery & benchmarking (anonymized).

8.2 **Access & APIs:** Provider will maintain secure remote access (VPN/Zero-Trust), retain full event logs ≥ ____ **years**, and provide Owner/financiers read-only dashboards & **data export API** (JSON/CSV) at ____ **min** granularity.

8.3 **Cyber:** follow industry best practices (role-based access, MFA, patch management, vulnerability disclosure process, encrypted channels, audited

changes). Report **Security Incident** within **[4] hours** with containment & remediation plan.

8.4 SoH Transparency: Provider will compute and report **SoH** per agreed test protocol (Schedule 12) and supply raw data sufficient for third-party verification. (Note: performance guarantees remain in Warranty/CMA).

9. Service Levels (SLA), Measurement & LDs

9.1 SLA Period: Monthly and Year-to-Date (YTD), starting at COD/FAC.

9.2 Availability Target: **[98.0]**% monthly / **[98.5]**% YTD.

Formula :

Availability = (Total Hours – Permitted Exclusions – Provider-Attributable Downtime) ÷ (Total Hours – Permitted Exclusions) × 100%

9.3 Permitted Exclusions (not counted as downtime) :

- (a) Planned Maintenance windows notified **≥ [7] days** in advance within annual caps (e.g., **[24] h/quarter**);
- (b) Grid/facility outages, curtailment, interconnection trips not caused by BESS;
- (c) Owner-IT/telecom failures, market unavailability, external SCADA/AGC issues;
- (d) Force Majeure;
- (e) CMA/Warranty works within agreed windows;
- (f) Owner-requested tests.

9.4 Incident Response & Restore (Schedule 3) :

- **Severity 1 (Critical):** remote response **≤ [15] min**, on-site dispatch **≤ [4] h**, restore **≤ [24] h** or workaround ;
- **Severity 2 (Major):** remote **≤ [30] min**, on-site **≤ [24] h**, restore **≤ [72] h** ;
- **Severity 3 (Minor):** remote **≤ [4] h**, on-site as planned, restore in next maintenance cycle.

9.5 Liquidated Damages (LDs) for Availability shortfall (monthly) :

LD = [\$ / point / % shortfall] × (Target% – Achieved%) × [Contracted Power or Fee Base] ; cap per month = ____% of Monthly Service Fee ; annual LD cap = ____%

of Annual Fee. LDs are **sole remedy** for SLA shortfall (excluding willful misconduct/gross negligence)。

9.6 **Performance Bonus** (optional) : If Availability \geq **[99.2]**%, bonus = ____% of Monthly Service Fee (cap ____% per year)。

9.7 **Test & Verification** : Annual **Performance & Capacity Check** per Schedule 12 ; Provider to furnish instruments traceable to NIST or equivalent ; Owner may appoint independent witness (cost in Section 13)。

10. Change Management

All scope changes use **Schedule 9 Change Order** (CO) process with impact assessment (cost/time/risks)。Emergency changes may be implemented to protect safety/asset ; CO to follow within **5** business days.

11. Pricing, Payment & Indexation

11.1 **Service Fee** : Fixed **Annual Base Fee** of **USD** ____ (payable monthly/quarterly in arrears), covering Sections 5.1–5.8。

11.2 **Indexation** : From Year-2, escalate **[CPI-U]** (US BLS) with floor/ceiling **[0–3]**%。

11.3 **Pass-Throughs** (at cost, no markup unless stated) : major consumables, rental cranes, special PPE, specialized OEM field engineers if required by OEM Warranty, permit fees。

11.4 **Time & Materials (T&M)** : Out-of-scope tasks per **Schedule 7 Rate Card** (labor [\$/hr], travel per diem, overtime multipliers)。

11.5 **Spares Model** : **[Provider-Managed Inventory at Site / Consignment / Owner-Procured]** per Schedule 6 ; define min/max and replenishment time。

11.6 **Payment Terms** : Net **[30]** days from undisputed invoice ; late payment interest = lesser of **[1%/mo]** or applicable law。

11.7 **Set-Off** : Owner may set LDs against invoices。

12. Performance Security

Provider shall furnish **[Performance Bond / Parent Guarantee]** equal to ____% of Annual Base Fee (rolling), issued by a reputable surety. Failure to maintain is material breach.

13. Taxes, Third-Party Costs & Audit

Prices exclude sales/use taxes ; Owner pays applicable taxes (except Provider income/franchise taxes). Owner may audit service records, COs and pass-throughs on **30 days** notice, not more than **1x/year**.

14. Insurance & Indemnities

14.1 Provider maintains throughout Term at least : Commercial General Liability **[USD 2M per occurrence]**, Workers' Comp, Employer's Liability, Auto, and **Pollution/Environmental Liability [USD 2M]**. Certificates to Owner with **[30] days** prior cancellation notice ; Owner named as additional insured where customary.

14.2 Mutual indemnities for third-party claims arising from negligence/willful misconduct. Provider indemnifies Owner for bodily injury/property damage caused by Provider's acts/omissions while on Site. **No indemnity** for Owner's negligence.

15. Health, Safety & Environmental (HSE)

Follow OSHA, NFPA 70/70E, **NFPA 855**, local Fire Marshal directives, hot-work permits, LOTO, confined space rules. Provider supplies PPE and HAZMAT training for Li-ion ; maintains **Emergency Response Plan** (fire/thermal runaway actions) and conducts annual drills with Owner & AHJ.

16. Battery Handling, Transport & Recycling (U.S.)

16.1 **Defective/Failed Modules** : diagnose, isolate, de-energize, package per **UN 38.3 & 49 CFR** (DOT/PHMSA) for hazardous materials ; label & store in dedicated area awaiting removal.

16.2 **Recycling/Disposal** : Provider shall arrange shipment to **qualified recyclers** compliant with federal/state laws (e.g., RCRA & state e-waste rules). Title & risk

of defective/retired modules transfer as stated in **Schedule 13**. Provide **Certificates of Recycling/Destruction** to Owner.

16.3 Second-Life (If elected by Owner) : Provider to test/grade removed modules, provide SoH reports for resale ; only modules meeting agreed thresholds may be remarketed ; otherwise recycle.

17. Intellectual Property

Each Party retains pre-existing IP. Provider grants Owner a non-exclusive, non-transferable license to use service deliverables, reports, maintenance documentation for internal operation & regulatory purposes. No reverse engineering of Provider tools.

18. Confidentiality & Publicity

Mutual NDA obligations (5-year survival). No press release or public use of Owner's name/logo without prior written consent (except as required by law/financiers).

19. Force Majeure

Neither Party liable for delay/failure caused by events beyond reasonable control (acts of God, war, embargo, epidemic, supply chain embargoes, strikes), provided prompt notice and mitigation. SLA clocks pause for Force Majeure periods.

20. Liability Cap & Carve-Outs

20.1 Cap : Provider's aggregate liability under this LTSA in any Contract Year shall not exceed **[100]%** of the **Annual Base Fee** for that year, **excluding** LDs already paid.

20.2 Carve-Outs : Cap does **not** apply to (i) bodily injury/death or tangible property damage due to Provider negligence/willful misconduct ; (ii) fraud ; (iii) IP infringement ; (iv) breach of confidentiality ; (v) gross negligence/willful misconduct.

21. Termination

21.1 **For Cause** : Either Party may terminate for material breach uncured within **[30]** days (monetary) / **[45]** days (non-monetary) after notice.

21.2 **For Convenience** : Owner may terminate on **[90]** days' notice ; early termination fee = ____ (e.g., **3 months** of Base Fee) to cover demob & wind-down.

21.3 **Bankruptcy** : Non-defaulting Party may terminate if other Party becomes insolvent/subject to bankruptcy proceeding.

21.4 **Effect** : Provider to cooperate in transition ; deliver current data, configs, open work orders status ; assign third-party warranties where transferable.

22. Lender Rights & Assignment

This LTSA is **collateral-assignable** to Owner's lenders. Provider shall execute customary **Consent & Step-In Agreement** allowing lenders to cure Owner defaults. Either Party may assign to affiliates/successors upon notice, provided no adverse effect on the other Party ; no assignment to competitors of Owner without consent.

23. Dispute Resolution & Governing Law

23.1 **Law** : Laws of the State of **[New York / Texas / California]**, excluding conflict-of-laws rules.

23.2 **Venue / Arbitration** (二选一，双方在签署时确认) :

- **Option A** : state/federal courts in ____ (**County, State**) with waiver of jury trial ; 或
- **Option B** : **AAA arbitration** in ____ (**City, State**) before ____ (**1/3**) arbitrator(s), English language.

23.3 Interim injunctive relief available from any competent court.

24. Miscellaneous

Entire agreement ; amendments in writing ; severability ; no waiver by delay ; counterparts & e-signatures valid ; order of precedence : Main Body → Schedules

→ COs ; headings for convenience。 Notices to addresses above by courier/email (with confirmation)。

Schedule 1 – Scope of Services (Detail)

A. Monitoring & Analytics : 24×7 NOC ; anomaly detection (cell voltage spread, temp gradients, impedance trends) , RTE tracking, parasitic load tracking, outage root-cause analytics。

B. Preventive Maintenance Matrix (示例频次, 按 OEM/现场调整)

- **Monthly** : visual walkdown ; alarms review ; HVAC status ; enclosure pressurization ; comms link check ; EMS sync ; housekeeping。
- **Quarterly** : IR thermography on DC bus & terminations ; torque checks (sampled) ; filter replacement ; firmware health check ; safety devices supervised test。
- **Semi-Annual** : fire detection/suppression functional tests with AHJ as required ; grounding resistance ; door seals ; battery room ventilation test。
- **Annual** : full electrical inspection ; DC insulation test per OEM ; PCS preventive kit ; transformer oil (if applicable) ; site protection relays test ; cybersecurity patch review ; **Annual Capacity/Performance Test** (see Schedule 12)。

C. Corrective Maintenance : triage, parts logistics, repair/replace, post-mortem report within **[5]** business days。

D. Training : on-site/virtual, Operator & HSE refreshers ; incident tabletop exercises。

E. Compliance Support : audit packs (maintenance logs, test certificates, fire & HAZMAT training logs) , utility witness coordination。

Schedule 2 – Site & System Description

- Project : ____ MW / ____MWh (LFP)
- Location : ____
- COD/FAC : ____

- OEM/Integrator : ____
- Major Equipment : PCS ____, Containers ____, BMS ____, EMS ____, Transformers/Switchgear ____
- One-Line / Asset Register attached as **Annex S2-A**.

Schedule 3 – SLA Details & Incident Matrix

Severity Definition

- **S1 Critical** : full BESS unavailable ; major safety hazard ; fails grid dispatch.
- **S2 Major** : partial capacity loss > **[20]%** or repeated nuisance trips.
- **S3 Minor** : cosmetic/minor alarms with no material impact.

Clock Start : alarm receipt at NOC or trouble ticket opened, whichever earlier.

Planned Maintenance : window per Section 9.3 ; publish annual plan by **Dec 15** for next year ; changes need **72h** notice.

Schedule 4 – Maintenance Plan (Checklist Templates)

Checklists with sign-off : torque map, IR images, calibration certs, HVAC filters change log, fire system weekly/monthly/annual tests, grounding & bonding, door seal inspection, drainage, pest control. Include OEM forms & acceptance lines.

Schedule 5 – Reporting & Communications

- **Monthly Report** : KPIs (Availability, alarms, trips, EIS/EES, throughput, RTE trend) , maintenance performed, parts used, open NCRs, recommendations.
- **Quarterly Review** : trend analysis, lifecycle forecast vs. Warranty curves (for information) , cyber posture, regulatory changes.
- **Incident Reports** : within **[2]** business days (prelim) , **[5]** business days (final RCA & CAPA).

Schedule 6 – Spare Parts Strategy

- **Critical Spares List** : contactors, DC fuses, fans, HVAC kits, sensors, aux PSUs, HMI/PLC modules, comms cards, door seals, detectors.

- **Stocking : On-Site Min/Max ; Replenish SLA** : ship within **[48] h** for critical.
- **Ownership : Consignment vs. Owner-owned** ; shrinkage & shelf-life management.

Schedule 7 – Rate Card (T&M)

Labor categories & rates ; overtime/holiday multipliers ; travel per diem & mileage ; crane & specialty tooling ; third-party lab tests.

Schedule 8 – HSE & Site Rules

PPE matrix, LOTO procedure, arc-flash boundaries, hot-work permits, energized work authorization, emergency contacts, muster points, AHJ coordination.

Schedule 9 – Change Order Form

Request → Impact (scope/cost/schedule/risks) → Approval → Implementation → Closeout. Template attached.

Schedule 10 – Cybersecurity Controls

Access control policy ; MFA ; password policy ; patch cadence ; vulnerability scanning ; incident response runbook ; log retention **[3–5] yrs**.

Schedule 11 – Insurance Certificates

Provider to furnish COIs ; additional insured endorsements ; waiver of subrogation language where customary.

Schedule 12 – Test Protocols (Annual & Post-Major-Maintenance)

- **Capacity Test** : stabilized temp **[20–30°C]**, standard C-rate **[0.25–0.5C]**, defined rest times, charge/discharge to agreed voltage windows ; meter accuracy **Class [0.5S]** or better ; net energy (kWh) measured at AC POI (and DC for diagnostics).

- **Availability Audit** : event log reconciliation against exclusions ; Owner witness rights。
- **RTE Check** (informational unless CMA/Warranty states otherwise)。
- **Dispute** : third-party referee lab ; cost borne by under-performing Party。

Schedule 13 – Removal, Transport & Recycling Flow

Chain-of-custody, packaging spec, temp control, DOT shipping names/UN numbers, recycler qualification, Certificates of Recycling/Destruction templates, optional Second-Life grading form。

Signature Blocks

Owner : _____ Name/Title : ____ Date : ____

Provider : _____ Name/Title : ____ Date : ____

PRODUCT & PERFORMANCE WARRANTY AGREEMENT

for Battery Energy Storage System (BESS)

Date: ____

Warranty Agreement No.: ____

1. Parties

- **Warrantor (OEM/Integrator):** ____
- **Owner:** ____

2. Scope of Warranty

2.1 Defect Warranty

- The Equipment shall be free from defects in materials, workmanship, and design.

2.2 Performance Warranty

- The Equipment shall maintain usable capacity and round-trip efficiency (RTE) as specified in **Annex A – Performance Curve**.
- The Warrantor guarantees that usable capacity shall not fall below ____% of the initial rated capacity within ____ years or ____ cycles, under the Reference Operating Conditions defined in **Annex B**.
- The Warrantor guarantees that RTE shall not fall below ____% during the Warranty Period.

3. Warranty Period

- **Defect Warranty Period** : ____ years from COD or FAC.
- **Performance Warranty Period** : ____ years from COD or FAC.

4. Remedies

- Repair, replace, or supplement defective or underperforming components.
- Warrantor shall bear costs of parts, labor, and logistics.
- Remedies must restore the Equipment to contractual performance standards.

5. Exclusions

- Misuse, negligence, abnormal environmental conditions.
- Operation outside contractual duty cycles or specifications.
- Force Majeure.
- Unauthorized modifications.

6. Claim Process

- Owner shall notify Warrantor within ____ days of discovering defect.
- Joint testing shall follow **Annex C – Test Protocol**.
- Warrantor shall respond within ____ days and complete remedy within ____ days.

7. Liability & Governing Law

- Aggregate liability of Warrantor under this Agreement shall not exceed ____% of the total supply contract price.
- Governing law : ____。
- Venue : ____。

Signatures

Owner : _____ Date : ____

Warrantor : _____ Date : ____

CAPACITY MAINTENANCE AGREEMENT (CMA)

for Battery Energy Storage System (BESS)

Date: ____

CMA No.: ____

1. Parties

- Provider: ____
- Owner: ____

2. Purpose

This CMA ensures the BESS maintains contractual usable capacity throughout its lifecycle by providing augmentation or replacement services when natural degradation exceeds agreed thresholds.

3. Baseline & Thresholds

- Baseline usable capacity : ____ MWh (as per COD test)。
- Trigger Threshold : If tested usable capacity falls below ____% of expected capacity at any time, augmentation obligations shall apply。

4. Augmentation Method

- Provider shall augment by installing new compatible modules/packs or replacing degraded components。
- Mixed operation of old and new components is permitted only if performance and safety standards are met。
- All augmentations shall maintain compliance with ____ (UL, IEEE, NFPA, local codes)。

5. Augmentation Windows

- Annual (or ____) capacity testing per **Annex A – Capacity Test Protocol**。
- Augmentation works shall be completed within ____ months after a shortfall is confirmed。

6. Costs & Payment

- **Annual CMA Fee** : USD ____ per year, payable monthly/quarterly。
- Fee covers augmentation hardware, labor, logistics, and compliance。
- Additional costs due to Owner's misuse are chargeable separately。

7. Testing & Verification

- Joint testing witnessed by both Parties。
- Independent third-party referee may be appointed in case of dispute ; costs borne by losing Party。

8. Compliance & Recycling

- Removed modules shall be disposed or recycled through certified facilities per applicable law。
- Certificates of Recycling shall be provided to Owner。

9. Term

- Effective from COD until ____ years thereafter.
- Renewable upon mutual agreement.

10. Liability & Governing Law

- Provider is liable for failure to restore contractual capacity.
- Governing law : ____.
- Venue : ____.

Signatures

Owner : _____ Date : ____

Provider : _____ Date : ____