

东方日升有害物质管理承诺书

Risen Energy Hazardous Substances Management Commitment

为积极响应全球环境保护趋势，履行企业社会责任，东方日升承诺：通过全流程管理、供应链协同和研发创新，持续识别、管控并逐步减少或替代产品及生产过程中涉及的有害物质，提升产品环境表现与客户安全保障水平。

In response to global environmental protection trends and in fulfillment of corporate social responsibility, Risen Energy commits to continuously identifying, controlling, and gradually reducing or substituting hazardous substances involved in its products and production processes through lifecycle-based management, supply chain collaboration, and R&D innovation, thereby improving product environmental performance and customer safety assurance.

本承诺将通过公司官方网站、年度可持续发展报告或其他公开披露文件进行发布，并结合适用法规、客户要求和公司管理实践定期更新执行进展。

This commitment will be made publicly available through the Company's official website, annual sustainability report, or other public disclosure channels. Implementation progress will be updated periodically with reference to applicable regulations, customer requirements, and the Company's management practices.

■ 合规标准 | Compliance Standards



本承诺结合公司产品适用范围，参考并遵循以下主要法律法规和技术标准。对于尚未到强制实施节点或需结合产品适用范围逐步推进的要求，公司将根据法规时间表、客户要求及内部管理实践分阶段开展合规准备和管理提升。

This commitment takes into account the applicability of the Company's products and refers to the following major laws, regulations, and technical standards. For requirements that have not yet reached mandatory implementation timelines or that need to be advanced based on product applicability, the Company will carry out compliance preparation and management enhancement in phases according to regulatory timelines, customer requirements, and internal management practices.

• 国际法规与标准 | International Regulations and Standards

- REACH 法规（欧盟）- 高关注物质（SVHC）的识别、评估与替代管理，适用于公司相关产品、材料及核心部件中已识别或客户要求覆盖的范围。

REACH Regulation (EU) - Identification, assessment, and substitution management of Substances of Very High Concern (SVHC), applicable to identified or customer-required scopes within relevant products, materials, and core components of the Company.

- RoHS 指令（欧盟）- 针对适用电器电子产品及材料开展铅、镉、汞、六价铬、PBB、PBDE、DEHP、BBP、DBP、DIBP 等限制物质管控。光伏组件按适用 RoHS 要求开展合规管理，储能产品结合欧盟电池法规及客户要求开展相关有害物质管控。

RoHS Directive (EU) - Control of restricted substances such as lead, cadmium, mercury, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP, and DIBP for



applicable electrical and electronic products and materials. Photovoltaic modules are managed in accordance with applicable RoHS requirements, while energy storage products are managed based on the EU Battery Regulation and customer-specific requirements.

- 欧盟电池法案 (Regulation (EU) 2023/1542) - 储能电池相关有害物质限制、成分披露、碳足迹、回收含量及可回收性等要求。公司将结合强制实施时间、客户要求及产品适用范围, 分阶段推进相关合规准备工作。

EU Battery Regulation (Regulation (EU) 2023/1542) - Requirements related to hazardous substance restrictions, component disclosure, carbon footprint, recycled content, and recyclability of energy storage batteries. The Company will advance relevant compliance preparation in phases based on mandatory implementation timelines, customer requirements, and product applicability.

- UL 9540/UL 9540A、IEC 62619、IEC 62933 系列 - 储能系统安全与材料适配性标准。

UL 9540/UL 9540A, IEC 62619, and IEC 62933 series - Safety and material compatibility standards for energy storage systems.

• 中国法规与标准 | Chinese Regulations and Standards

- 《危险化学品安全管理条例》

Regulations on Safety Management of Hazardous Chemicals

- 《电化学储能系统通用技术要求》(GB/T 36276)

General Technical Requirements for Electrochemical Energy Storage Systems



(GB/T 36276)

- 《电器电子产品有害物质限制使用要求》(GB 26572-2025, 2027 年 8 月 1 日起实施)

Requirements for Restricted Use of Hazardous Substances in Electrical and Electronic Products (GB 26572-2025, effective from August 1, 2027)

- 《中华人民共和国固体废物污染环境防治法》(2020 修订)

Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (2020 Revision)

在上述法律或标准未涵盖的情况下, 东方日升还将根据客户、利益相关方或市场合规要求, 遵循适用的行业规范或补充标准。

In cases not covered by the above laws or standards, Risen Energy will also follow applicable industry norms or supplementary standards according to customer, stakeholder, or market compliance requirements.

■ 承诺内容 | Commitment Content

- **逐步管控与替代有害物质** Gradual Control and Substitution of Hazardous Substances

本承诺适用于公司光伏组件、储能产品及相关产品中已识别、适用或客户要求管控的重点有害物质, 包括但不限于 RoHS 限制物质、REACH SVHC、POP 清单物质以及公司《受限物质清单》(RSL) 所列物质。对于经识别不涉及禁用有害物质的产品或材料, 公司将通过检测报告、供应商声明、内部测试和合规审查持续验证其符合性。

This commitment applies to identified, applicable, or customer-required priority



hazardous substances in the Company's photovoltaic modules, energy storage products, and related products, including but not limited to RoHS restricted substances, REACH SVHCs, POP-listed substances, and substances included in the Company's Restricted Substances List (RSL). For products or materials identified as not involving prohibited hazardous substances, the Company will continue to verify compliance through test reports, supplier declarations, internal testing, and compliance reviews.

公司将重点减少、替代或淘汰以下类型物质：

The Company will focus on reducing, substituting, or phasing out the following types of substances:

- 含铅焊接材料及相关连接材料（如适用）；

Lead-containing solder materials and related connection materials, where applicable;

- 铅、镉、汞、六价铬及其他法规限制重金属；

Lead, cadmium, mercury, hexavalent chromium, and other heavy metals restricted by applicable regulations;

- 含卤素阻燃剂及相关受限添加剂（如 PBB、PBDE）；

Halogenated flame retardants and related restricted additives, such as PBB and PBDE;

- 难回收或含受限添加剂的树脂材料、含氟有机电解液及相关受限添加剂（如适用）；

Difficult-to-recycle resin materials or resin materials containing restricted



additives, fluorine-containing organic electrolytes, and related restricted additives, where applicable;

- 已列入 REACH SVHC、RoHS、POP 清单及公司 RSL 的适用受限物质。

Applicable restricted substances listed under REACH SVHC, RoHS, POP requirements, and the Company' s RSL.

• 设定时间表推进替代目标 | Set Timelines to Advance Substitution Targets

- 到 2026 年底：优先完成光伏组件产品中含铅焊接材料替代方案的导入，并根据产品验证、客户要求及量产切换安排，逐步停止使用含铅焊接材料。

By the end of 2026: Prioritize the introduction of alternatives to lead-containing solder materials in photovoltaic module products and gradually stop using lead-containing solder materials based on product validation, customer requirements, and mass-production transition arrangements.

- 到 2030 年：完成主要产品线中已识别高风险有害物质的替代评估与可行性验证，持续推进 REACH SVHC、RoHS 及 POP 清单所列适用受限物质的替代或淘汰，并确保适用产品符合相关法规限值和客户要求。

By 2030: Complete substitution assessments and feasibility validation for identified high-risk hazardous substances across major product lines, continue to advance the substitution or phase-out of applicable restricted substances listed under REACH SVHC, RoHS, and POP requirements, and ensure that applicable products meet relevant regulatory thresholds and customer requirements.



在上述目标基础上，公司将对产品组合中涉及的重点有害物质开展替代评估与验证，优先采用低毒、无毒、可回收或更低环境影响的材料方案。

Based on the above targets, the Company will assess and validate substitutes for priority hazardous substances involved in its product portfolio, giving priority to low-toxicity, non-toxic, recyclable, or lower-impact material solutions.

• 推动绿色设计与替代创新 | Promote Green Design and Substitution Innovation

- 投入专项研发资源用于低毒、无毒、可回收或更低环境影响材料的研究与验证；

Invest dedicated R&D resources in the research and validation of low-toxicity, non-toxic, recyclable, or lower-impact materials;

- 建立绿色材料替代库，并在产品设计评审中纳入可拆解性、可回收性及材料合规性审查；

Establish a green material substitution database and incorporate disassembly, recyclability, and material compliance reviews into product design evaluations;

- 在技术可行、供应稳定且满足产品性能要求的前提下，优先选用通过第三方认证或具备合规证明的绿色材料。

Where technically feasible, supply is stable, and product performance requirements are met, prioritize the use of green materials with third-party certification or compliance documentation.

- 公司将通过研发项目立项、年度研发资源配置及产品设计评审机制，支持有害物质替代和淘汰工作，重点推进低毒、无毒、可回收及更低环境影响材料的研发和应用。

The Company will support hazardous substance substitution and phase-out through R&D project approval, annual R&D resource allocation, and product



design review mechanisms, with a focus on the development and application of low-toxicity, non-toxic, recyclable, and lower-impact materials.

• 供应链合作与材料合规管理 | Supply Chain Collaboration and Material Compliance Management

- 要求供应商在适用范围内提供材料合规证明文件，包括 MSDS、RoHS、REACH 相关第三方检测报告或合规声明；

Require suppliers to provide material compliance documents within the applicable scope, including MSDS, RoHS and REACH-related third-party test reports, or compliance declarations;

- 对于涉及商业秘密、无法提供完整 BOM 或配方信息的材料，公司通过供应商合规声明、第三方检测报告及必要的内部抽检或定期检测开展材料合规管理；

For materials where full BOM or formulation information cannot be provided due to commercial confidentiality, the Company manages material compliance through supplier compliance declarations, third-party test reports, and necessary internal sampling or periodic testing;

- 针对关键原材料，公司开展必要的自主检测或第三方检测，包括对玻璃等材料中相关有害元素（如砷）的监控；

For key raw materials, the Company conducts necessary internal or third-party testing, including monitoring relevant hazardous elements such as arsenic in materials including glass;



- 更新并执行《受限物质清单》(RSL);

Update and enforce the Restricted Substances List (RSL);

- 鼓励供应链共同参与行业标准制定与替代路径研发。

Encourage supply chain participation in industry standard setting and the development of substitution pathways.

- 公司将与相关行业协会、标准组织、客户、供应商及研究机构合作，跟踪有害物质管控趋势，识别并评估可行的替代材料和替代工艺。

The Company will collaborate with relevant industry associations, standard-setting organizations, customers, suppliers, and research institutions to monitor hazardous substance control trends and identify feasible alternative materials and processes.

• 进展公开与监管协同 Progress Disclosure and Regulatory Cooperation

- 每年通过《可持续发展报告》或其他公开渠道披露有害物质管理目标的推进情况；

Annually disclose progress against hazardous substance management targets through the Sustainability Report or other public channels;

- 披露内容包括重点物质替代进展、受限物质清单更新、供应商材料合规审核情况、产品材料检测及认证情况，以及新法规要求的阶段性准备进展；

Disclosure will include progress on priority substance substitution, updates to the RSL, supplier material compliance reviews, product material testing and certification status, and phased preparation progress for new regulatory requirements;



- 积极参与行业协会、标准组织或政府主管部门组织的绿色材料替代、产品合规及有害物质管理相关交流或试点；

Actively participate in exchanges or pilot projects related to green material substitution, product compliance, and hazardous substance management organized by industry associations, standard-setting organizations, or government authorities;

- 配合客户、政府及第三方的合规审核与材料追溯要求。

Cooperate with customers, governments, and third parties in compliance audits and material traceability requirements.

