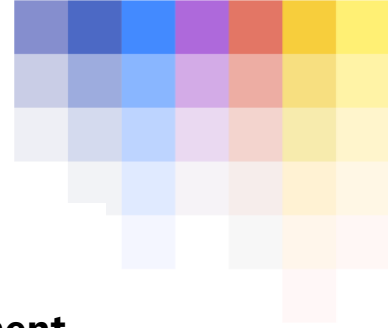




东方日升有害物质管理承诺书

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：将通过全流程管理和研发创新，逐步减少并最终淘汰产品与生产过程中涉及的有害物质，提升环境友好性与客户安全保障水平。

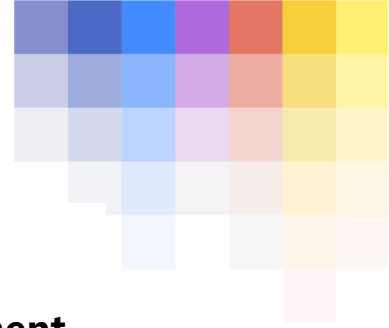
In active response to the global environmental protection trend and in fulfillment of corporate social responsibility, Risen Energy commits to gradually reduce and ultimately eliminate hazardous substances involved in products and production processes through full-process management and R&D innovation, thereby enhancing environmental friendliness and customer safety assurance.

■ 合规标准 Compliance Standards

本承诺依循以下主要法律法规和技术标准：

This commitment follows the main laws, regulations, and technical standards as below:

- **国际法规与标准 International Regulations and Standards::**
 - REACH 法规（欧盟）—— 高关注物质（SVHC）识别与替代
REACH Regulation (EU) — Identification and substitution of Substances of Very High Concern (SVHC)
 - RoHS 指令（欧盟）—— 限用铅、汞、六价铬等 10 项有害物质
RoHS Directive (EU) — Restriction of 10 hazardous substances including lead, mercury, hexavalent chromium, etc.
 - 欧盟电池法案—— 储能电池成分披露、碳足迹、可回收性要求
EU Battery Regulation (2023) — Disclosure of energy storage battery components, carbon footprint, and recyclability requirements
 - 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, 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



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- 《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)
Requirements for Restriction of the Use of Hazardous Substances in Electrical and Electronic Products" (GB 26572-2025)
- 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

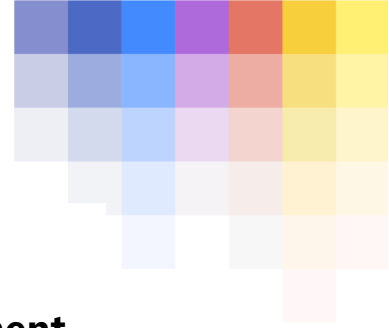
• 逐步淘汰有害物质 Gradual Elimination of Hazardous Substances

我们承诺减少或淘汰产品设计、生产与封装中使用的以下类型物质：

We commit to reducing or eliminating the use of the following types of substances in product design, manufacturing, and packaging:

- 含铅焊接材料与电池连接片
Lead-containing solder materials and battery tabs
- 含卤素阻燃剂（如 PBB、PBDE）
Halogenated flame retardants (e.g., PBB, PBDE)
- 不可回收树脂类、含氟有机电解液等
Non-recyclable resins, fluorine-containing organic electrolytes, etc.
- 所有已列入 REACH SVHC、RoHS、POP 名单的受限物质
All restricted substances listed under REACH SVHC, RoHS, and POP lists

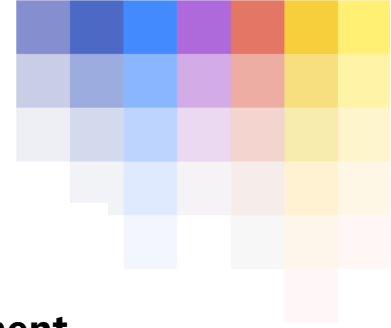
• 承诺目标达成时间表：Commitment Target Achievement Timeline:



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- 2026 年：淘汰光伏组件产品中的铅焊接材料，100%替代为无害焊接材料。
- By 2026: Phase out lead-based soldering materials in photovoltaic module products, while substituting them with non-hazardous soldering materials at a 100% rate.
- 2030 年：实现全系列产品淘汰 REACH SVHC 物质。
- By 2030: Achieve the phase-out of REACH SVHC substances across the entire product range.
- **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、无毒替代材料研究；
Invest dedicated R&D resources in low-toxicity and non-toxic substitute materials research
 - 设立“绿色材料替代库”与产品设计可拆解性审查机制；
Establish a “Green Material Substitution Library” and a product design disassembly review mechanism
 - 在光伏和储能产品中优先选用通过第三方认证的绿色材料。
Prioritize the use of third-party certified green materials in photovoltaic and energy storage products
- **供应链合作与材料透明度管理 Supply Chain Collaboration and Material Transparency Management**
 - 要求供应商提供材料成分披露（如 BOM Check）；
Require suppliers to provide material composition disclosure (e.g., BOM Check or IPC-1752 format)
 - 要求供应商涉及化学品的材料提供 MSDS、ROHS、REACH 相关检测报告；
Require suppliers to provide MSDS, ROHS, REACH-related test reports for chemical materials involved
 - 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



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- substitution pathway research
- **进展公开与监管协同 Progress Disclosure and Regulatory Cooperation**
 - 每年在《可持续发展报告》中披露淘汰进展；
Annually disclose elimination progress in the Sustainability Report.
 - 积极参与行业协会、政府主管部门的绿色材料替代试点；
Actively participate in green material substitution pilot projects organized by industry associations and 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.