东方日升废弃物管理项目与实施情况说明

Risen Energy Waste Management Programs and Implementation Statement

本说明作为《东方日升废弃物管理政策》的配套实施文件，覆盖公司直接控制的生产、仓储、办公及配套运营活动，包括一般固体废弃物、危险废弃物、可回收物、包装材料、生产边角料及其他与生产经营相关的废弃物。本说明披露公司废弃物管理项目、目标进展、源头减量、资源化利用、危险废弃物管控、培训、数据追踪及持续改进情况。各子公司结合所在地法规要求、工艺特点和产废情况，将集团废弃物管理要求转化为属地执行文件和年度行动计划。

This Statement serves as an implementation document supporting Risen's Waste Management Policy. It covers production, warehousing, office and supporting operational activities under the direct control of the Company, including general solid waste, hazardous waste, recyclable materials, packaging materials, production scraps and other waste arising from business operations. This Statement discloses the Company's waste management programs, target progress, source reduction actions, resource utilization, hazardous waste controls, training, data tracking and continuous improvement practices. Each subsidiary translates the Group's waste management requirements into site-level procedures and annual action plans according to local regulations, process characteristics and waste generation profiles.

管理原则 | Management Principles

- 坚持源头减量。积极倡导选用环境友好型及可循环材料，统筹环境效益与经济合理性，通过产品设计迭代、工艺优化、包装改良多措并举，降低废弃物产生量。

  Source reduction. We encourage the adoption of eco-friendly and recyclable materials on the premise of economic viability, and reduce waste generation by optimizing product design, manufacturing processes and packaging solutions.

- 坚持分类管控。一般固体废弃物、危险废弃物和可回收物分别识别、收集、贮存、转移和处置，避免混装、错放和二次污染。

  Classified management. General solid waste, hazardous waste and recyclable materials are separately identified, collected, stored, transferred and treated to prevent mixing, misplacement and secondary pollution.

- 坚持资源化优先。对可回收、可再利用的废弃物，优先采取内部循环、外部回收和资源化利用，减少进入填埋及末端处置的废弃物流量。

  Resource recovery first. Waste that can be recycled or reused is prioritized for internal circulation, external recycling and resource recovery, reducing the amount sent to landfill or end-of-pipe treatment.

- 坚持全过程可追溯。对废弃物产生、称重、入库、贮存、转移、处置及最终去向进行记录，关键环节留存台账、合同、资质、照片或系统凭证。

  Full traceability. Waste generation, weighing, warehousing, storage, transfer, treatment and final destination are recorded, with ledgers, contracts, qualifications, photographs or system records retained for key steps.

- 坚持持续改进。通过定期数据收集、现场检查、管理评审和员工培训，识别废弃物减量、回收利用和处置优化机会。

Continuous improvement. Waste reduction, recycling and disposal optimization opportunities are identified through regular data collection, site inspection, management review and employee training.

组织职责 | Responsibilities

公司建立集团统筹、子公司落实、产废部门源头负责的废弃物管理架构。集团 EHS 部负责危险废弃物管理制度建设、危险废物清单汇总、危废转移协调、合规检查和应急管理；集团行政部及行政中心负责一般固体废弃物制度规范、减排目标和日常监督；资产管理部负责可回收废弃物的资源化外运、回收渠道和合作承包商开发。

The Company operates a waste management structure under which the Group provides overall coordination, subsidiaries implement site-level controls and waste-generating departments manage waste at source. The Group EHS Department is responsible for hazardous waste procedures, the consolidated hazardous waste list, transfer coordination, compliance inspection and emergency management. The Group Administration Department and Administration Center are responsible for general solid waste procedures, reduction targets and routine supervision. The Asset Management Department leads the off-site resource utilization of recyclable waste and the development of recycling channels and contractors.

各子公司 EHS 和行政部门承接集团要求，开展属地分类贮存、合规监督、数据报送和承包商管理。产废部门负责一线源头分类、规范打包和交接记录；贮存部门负责仓库安全维护、出入库台账和现场标识管理。危险废弃物管理要求纳入各级负责人绩效考核，确保责任落实到部门和岗位。

The EHS and administration teams of each subsidiary implement site-level classification, storage, compliance supervision, data reporting and contractor management. Waste-generating departments are responsible for source segregation, proper packing and handover records. Storage departments are responsible for warehouse safety, entry and exit ledgers and visual signage. Hazardous waste management requirements are incorporated into the performance evaluation of responsible personnel at different levels to ensure accountability by department and position.

废弃物识别与评估 | Waste Identification and Review

公司建立并动态维护《一般固体废弃物产出清单》和《危险废物清单》，结合历史处置记录、现场巡查、废弃物分类检查、仓库台账、承包商反馈及最终处置去向数据，识别主要产废环节、废弃物类型、产生量变化和减量机会。相关评估结果作为年度目标、减量行动和资源化项目安排的依据。

The Company establishes and updates the List of General Solid Waste Outputs and the List of Hazardous Wastes. Historical disposal records, site walk-throughs, waste segregation checks, warehouse ledgers, contractor feedback and final disposal data are reviewed to identify major waste-generating activities, waste types, quantity changes and reduction opportunities. The review results are used as the basis for annual targets, reduction actions and resource recovery projects.

对于危险废弃物，各子公司对照《国家危险废物名录》进行识别，并在每年年底通过“全国固体废物管理信息系统”制定下一年度危险废物管理计划，明确废弃物类别、预计产生量、责任部门、

贮存要求、转移安排及处置单位。

For hazardous waste, each subsidiary identifies waste against the National Catalogue of Hazardous Wastes and prepares the next year’ s hazardous waste management plan through the National Solid Waste Management Information System at the end of each year. The plan specifies waste categories, estimated quantities, responsible departments, storage requirements, transfer arrangements and disposal service providers.

目标、关键指标与 2025 年进展 | Targets, Key Indicators and 2025 Progress

公司围绕源头减量、资源化利用和填埋减量设定废弃物管理目标，并结合年度运营数据评估进展。对于不同业务板块产生的危险废弃物，各业务单元应结合工艺特征和产废结构，分别设定年度减排或强度改善目标，并纳入跟踪。

The Company sets waste management targets around source reduction, resource utilization and landfill reduction, and evaluates progress based on annual operational data. For hazardous waste generated by different business segments, each business unit shall set annual reduction or intensity improvement targets according to its process characteristics and waste profile, and include them in tracking.

指标 Indicator	目标 Target	2025 年进展 2025 Progress

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总固废强度 Total solid waste intensity	到 2030 年，总固废强度较 2023 年基准年降低 10%。 By 2030, reduce total solid waste intensity by 10% from the 2023 base year.	总固废强度为 1.77 吨/百万元营收，较 2023 年下降 15.71%，已提前达到阶段目标。 Total solid waste intensity reached 1.77 tonnes per RMB million revenue, down 15.71% from 2023, achieving the interim target ahead of schedule.
送往垃圾填埋场的废弃物 Waste sent to landfill	到 2030 年，送往垃圾填埋场的废弃物减少 5%。 By 2030, reduce waste sent to landfill by 5%.	公司通过分类回收、内部循环、资源化外运及处置去向追踪，持续减少对填埋处置的依赖。 The Company continued to reduce reliance on landfill through classified recycling, internal reuse, off-site resource recovery and disposal-route tracking.
危险废弃物减排 Hazardous waste reduction	各业务板块根据自身实际情况设定危险废弃物减排目标。 Each business segment sets hazardous waste reduction targets based on its operational conditions.	各业务板块已分别设定危险废弃物减排目标，并纳入属地年度管理计划。 Hazardous waste reduction targets were set by business segment and incorporated into site-level annual management plans.

指标 Indicator	目标 Target	2025 年进展 2025 Progress
废弃物回收/再利用 Waste recycled/reused	持续提升可回收物和可再利用废弃物的资源化比例。 Continuously increase the resource utilization of recyclable and reusable waste.	废弃物总量 22,335.98 吨，其中无害废弃物 21,933.97 吨、有害废弃物 402.01 吨；有害及无害废弃物回收/再利用总量 8,358.06 吨。 Total waste generated was 22,335.98 tonnes, including 21,933.97 tonnes of non-hazardous waste and 402.01 tonnes of hazardous waste. Recycled/reused hazardous and non-hazardous waste totaled 8,358.06 tonnes.

源头减量与行动计划 | Source Reduction and Action Plans

公司将废弃物减量前移至产品设计、材料选择、采购、工艺设定和现场操作环节。各产废部门结合废弃物识别结果，制定可执行的减量措施，包括环保材料替代、包装材料减量与回收、生产边角料回用、工艺参数优化、设备改造和库存周转改善等。

Waste reduction is embedded in product design, material selection, procurement, process setting and on-site operation. Based on waste identification results, waste-generating departments develop practical reduction measures, including environmentally friendly material substitution, packaging reduction and recovery, reuse of production scraps, process parameter optimization, equipment modification and inventory turnover improvement.

在生产工艺优化方面，公司推动以数据和现场验证为基础的源头减排。宁波光伏科技通过提升制绒粗抛工艺温度并重新匹配流程，将氢氧化钠单次补液量由 1,600ml 降至 1,000ml，降幅达 37.5%，减少末端污水处理的硫酸中和用量。常州新能源针对原含氟废水系统反应不充分的问题

实施扩容改造，将除氟反应池容积由 105m3 扩建至 500m3，延长药剂与废水反应时间，降低药剂无效损耗与后续处置压力。

For process optimization, the Company promotes source reduction based on data and site verification. Ningbo Photovoltaic Technology increased the texturing and rough polishing process temperature and re-matched the process flow, reducing the single replenishment volume of sodium hydroxide from 1,600 ml to 1,000 ml, a 37.5% reduction, thereby lowering sulfuric acid neutralization needs in end-of-pipe wastewater treatment. Changzhou New Energy expanded the fluorine-containing wastewater reaction system from 105 m3 to 500 m3, extending reaction time and reducing ineffective chemical consumption and subsequent treatment pressure.

一般固体废弃物及回收利用 | General Solid Waste and Recycling

公司执行《集团固废物管理办法》，对一般固体废弃物实施分类收集、定点贮存、资源化利用和合规外运。日常收集严格执行分类打包、定点专区入库要求；可内部循环使用的边角料、包装物和辅助作业物资优先在生产或运营场景中回用。

The Company implements the Group Solid Waste Management Measures and manages general solid waste through classified collection, designated storage, resource utilization and compliant off-site transfer. Daily collection follows requirements for classified packing and storage in designated areas. Scraps, packaging and auxiliary materials suitable for internal circulation are prioritized for reuse in production or operational scenarios.

对需要外部处置或资源化利用的废弃物，公司严格审核承包商环保资质，执行“校验过磅、装车监装、出厂核查”的清运规范。处置承包商应反馈废弃物最终去向及相关数据，包括填埋、化学处理、焚烧及是否存在能量回收等，相关信息纳入公司环境数据管理。

For waste requiring external disposal or resource recovery, the Company strictly reviews the environmental qualifications of contractors and follows procedures for weighing verification, loading supervision and exit checks. Disposal contractors are required to provide feedback on final disposal routes and relevant data, including landfill, chemical treatment, incineration and whether energy recovery is involved. Such information is incorporated into the Company’ s environmental data management.

危险废弃物管理 | Hazardous Waste Management

公司执行《集团危险废物管理制度》，规范危险废弃物识别、申报登记、分类收集、贮存、转移、标志设置、培训和应急管理。危险废弃物严格按照类别和特性分区贮存，仓库满足防风、防雨、防晒、防渗漏要求；液态危废区设置导流渠、收集池和防漏托盘，易燃易爆危废区域按要求配备防爆灯具和气体检测仪。

The Company implements the Group Hazardous Waste Management System, which standardizes hazardous waste identification, declaration and registration, classified collection, storage, transfer, signage, training and emergency management. Hazardous waste is stored by category and characteristics. Warehouses meet requirements for protection from wind, rain, sunlight and leakage. Liquid hazardous waste areas are equipped with diversion channels, collection tanks and spill trays, while areas storing

flammable or explosive hazardous waste are equipped with explosion-proof lighting and gas detectors as required.

危险废弃物入库和出库均进行称重并填写《危险废物出入库记录》。公司应用目视化标识和二维码管理，实现“一物一码”追溯。危险废弃物 100%委托具备资质的第三方单位转移和处理，转移前审查运输及处置方资质，出厂环节落实过磅拍照，并按季度开展危废流向跟车核查，防范非法倾倒和处置偏差。报告期内，公司未发生危险废弃物泄漏事故。

Hazardous waste is weighed upon entry and exit, and Hazardous Waste Entry and Exit Records are completed. Visual labels and QR-code management are used to support item-level traceability. 100% of hazardous waste is transferred and treated by qualified third-party service providers. Before transfer, the Company reviews the qualifications of transportation and disposal parties, records weighing and photographs at factory exit, and conducts quarterly follow-up checks on hazardous waste routes to prevent illegal dumping or disposal deviations. During the reporting period, no hazardous waste leakage incident occurred.

创新、研发与工艺改进 | Innovation, R&D and Process Improvement

公司通过技术研发、工艺改善和跨部门专项工作，持续降低生产运营中的废弃物产生。重点方向包括低废弃物产品设计、可回收材料应用、包装减量与回收、关键辅材消耗优化、废弃物资源化利用场景开发，以及针对产废量大、环境风险较高工序开展分步式设备与工艺升级改造。

Through technical R&D, process improvement and cross-departmental initiatives, the Company continues to reduce waste generation in operations. Key areas include

low-waste product design, application of recyclable materials, packaging reduction and recovery, optimization of key auxiliary material consumption, development of waste resource utilization scenarios, as well as phased equipment and process upgrades for processes with high waste output and environmental risks.

相关创新项目由业务、技术、EHS、行政和资产管理等部门共同推进。项目立项时应考虑废弃物减量、可回收性、处置路径、运行稳定性和成本影响；项目完成后，相关部门应跟踪材料消耗、废弃物产生量和末端处置变化，并将有效做法纳入标准作业或管理制度。

Relevant innovation projects are jointly advanced by business, technical, EHS, administration and asset management teams. When initiating a project, waste reduction, recyclability, disposal route, operational stability and cost impact shall be considered. After completion, responsible departments shall track changes in material consumption, waste generation and end-of-pipe disposal, and incorporate effective practices into standard operations or management procedures.

数据追踪、进展评估与信息披露 | Data Tracking, Progress Evaluation and Disclosure

公司定期收集并追踪各子公司废弃物相关数据，内容包括废弃物类别、产生量、回收/再利用量、贮存量、处置方式、承包商信息、转移联单及最终去向。集团层面结合基准年、年度目标和项目实施情况，对废弃物强度、回收利用和填埋减量进展进行评估。

The Company regularly collects and tracks waste-related data from subsidiaries, including waste categories, generated quantities, recycled/reused quantities, stored

quantities, disposal methods, contractor information, transfer manifests and final destinations. At Group level, waste intensity, recycling/reuse and landfill reduction progress are evaluated against the base year, annual targets and project implementation status.

废弃物管理的主要目标、措施、数据和进展通过公司年度报告、可持续发展报告或其他公开渠道进行披露。

Major waste management targets, measures, data and progress are disclosed through annual reports, sustainability reports or other public channels.