

房地产行业企业气候行动

CATI 指数 1.0

Real Estate Industry

Corporate Climate Action

Transparency Index (CATI) 1.0



2026 - 03

房地产行业企业气候行动 CATI 指数 1.0

一级指标	二级指标	三级指标	分值
1. 治理机制（10%）	1.1 制度建设（5%）	1.1.1 已做出推动房地产低碳转型的承诺	1
		1.1.2 制定企业碳中和配套管理制度	3
		1.1.3 将要求供应商节能减排、温室气体核算与报送纳入供应商行为准则等书面文件	1
	1.2 机制建设（5%）	1.2.1 将气候变化纳入商业决策并具有针对气候相关风险管理程序	2
		1.2.2 将气候相关议题纳入企业管理层的监控、管理和监督职责	1
		1.2.3 通过赋能、开展创新项目、财务激励等机制引导供应商减排	2
2. 测算披露（22%）	2.1 范围 1&2 排放（10%）	2.1.1 测算并披露范围 1&2 排放量	5
		2.1.2 测算并披露综合能耗和能源使用情况	3
		2.1.3 测算并披露碳强度或能源强度	2
	2.2 范围 3 排放（6%）	2.2.1 测算并披露范围 3 排放量	4
		2.2.2 测算并披露钢铁、铝等原材料相关的排放量或占比	1
		2.2.3 定期收集供应商实测排放数据	1
	2.3 产品碳足迹（6%）	2.3.1 测算并披露产品碳足迹数据	6
3. 碳目标设定（16%）	3.1 范围 1&2 目标（7%）	3.1.1 设定并披露正在执行的范围 1&2 减排目标或节能目标	3
		3.1.2 设定并披露范围 1&2 碳中和目标	2
		3.1.3 设定并披露可再生能源目标	1
		3.1.4 范围 1&2 气候目标经专业机构认证或批准（如，经科学碳目标组织或其他倡议批准）	1
	3.2 范围 3 目标（9%）	3.2.1 设定并披露正在执行的范围 3 减排目标	2
		3.2.2 设定并披露针对钢铁、铝、水泥等建筑材料减排目标或低碳采购目标	2.5
		3.2.3 设定并披露范围 3 碳中和目标	2

		3.2.4 设定并披露建筑运营过程中的可再生能源利用目标	0.5
		3.2.5 设定并披露的目标涵盖：推动供应商设定气候目标	1
		3.2.6 范围 3 气候目标经专业机构认证或批准（如，经科学碳目标组织或其他倡议批准）	1
4. 碳目标绩效（14%）	4.1 范围 1&2 目标绩效（6%）	4.1.1 披露范围 1&2 减排目标或节能目标的完成进展	3
		4.1.2 披露范围 1&2 碳中和目标的完成进展	1
		4.1.3 披露可再生能源目标的完成进展	2
	4.2 范围 3 目标绩效（8%）	4.2.1 披露范围 3 减排目标的完成进展	2
		4.2.2 披露针对钢铁、铝、水泥等建筑材料减排目标或低碳采购目标的完成进展	2.5
		4.2.3 披露范围 3 碳中和目标的完成进展	1
		4.2.4 披露建筑运营过程中的可再生能源利用目标的完成进展	0.5
		4.2.5 跟踪并披露供应商气候目标设定的进展	2
5. 减排行动（38%）	5.1 企业自身运营减排（13%）	5.1.1 开展非化石能源利用或绿电采购项目，并披露项目减排量	4
		5.1.2 开展能源监测和管理项目	1
		5.1.3 开展能效提升技术应用项目，并披露项目减排量	3
		5.1.4 开展绿色低碳建筑设计，并量化减排潜力	1
		5.1.5 开展其他类型减排项目，并披露项目减排量	2
		5.1.6 通过自愿碳市场机制抵消部分碳排放，并披露抵消量	2
	5.2 关联企业自主开展碳管理（6%）	5.2.1 关联企业自主核算并公开披露年度排放数据	3
		5.2.2 关联企业自主设定并公开披露目标与进展	3
	5.3 企业价值链减排（10%）	5.3.1 推动建筑材料供应商开展企业碳管理或能源管理项目	1
		5.3.2 推动钢铁和/或铝材的供应商开展减排行动，并披露减排绩效	3
		5.3.3 推动水泥等其他材料供应商开展减排行动，并披露减排绩效	2
		5.3.4 与建筑材料物流供应商合作开展减排项目，并披露项目减排量	1
		5.3.5 推动建筑运行阶段的能效提升或可再生能源利用，并披露减排绩效	1
		5.3.6 建立（或和下游客户联合建立）末端回收机制，开展建筑报废建材回收及循环利用	0.5

		5.3.7 针对价值链上的其他排放源展开减排行动	0.5
		5.3.8 每年发布钢铁、铝、水泥等建筑材料供应商减排最佳案例	1
	5.4 供应商企业自主开展碳管理（9%）	5.4.1 钢铁和/或铝材供应商自主核算并公开披露工厂层级年度排放数据	3
		5.4.2 钢铁和/或铝材供应商自主设定并公开披露工厂层级目标与进展	2
		5.4.3 水泥等其他材料供应商自主核算并公开披露工厂层级年度排放数据	2
		5.4.4 水泥等其他材料供应商自主设定并公开披露工厂层级目标与进展	1
		5.4.5 企业通过蔚蓝生态链或等效自动化系统赋能上游供应商开展供应链碳管理 或 企业推动钢铁和/或铝供应商通过公开渠道披露产品碳足迹数据	1

Real Estate Industry Corporate Climate Action Transparency Index (CATI) 1.0

Dimension	Sub-dimension	Indicator	Score
1. Governance (10%)	1.1 Policy Construction (5%)	1.1.1 Company has committed to low-carbon transition of the real estate industry chain	1
		1.1.2 Company has developed a corporate carbon neutrality plan and management system	3
		1.1.3 Company has incorporated policies regarding supplier energy conservation, emissions reduction, and carbon accounting and reporting into written documents such as the Supplier Code of Conduct	1
	1.2 Mechanism Construction (5%)	1.2.1 Company has integrated climate-related issues into its business strategy and has specific climate-related risk management procedures in place	2
		1.2.2 Company has integrated climate-related issues into board-level monitoring, management and oversight responsibility	1
		1.2.3 Company provides capacity building and financial incentives, and/or initiates innovative projects for suppliers to reduce emissions	2
2. Measurement and Disclosure (22%)	2.1 Scope 1&2 Emissions (10%)	2.1.1 Company has publicly disclosed Scope 1 & 2 emissions data	5
		2.1.2 Company has publicly disclosed total energy use and energy use by source	3
		2.1.3 Company has publicly disclosed carbon intensity or energy intensity	2
	2.2 Scope 3 Emissions (6%)	2.2.1 Company has publicly disclosed Scope 3 emissions	4
		2.2.2 Company has calculated and publicly disclosed emissions or the proportion of emissions associated with raw materials such as steel and aluminum	1
		2.2.3 Company collects supplier carbon emissions data on a regular basis	1
	2.3 Product Carbon Footprint (6%)	2.3.1 Company has publicly disclosed product carbon footprint	6
3. Carbon Target Setting (16%)	3.1 Scope 1&2 Targets (7%)	3.1.1 Company has set and publicly disclosed its ongoing Scope 1 & 2 emissions reduction targets or energy consumption targets	3

		3.1.2 Company has set and publicly disclosed its Scope 1 & 2 carbon neutrality target	2
		3.1.3 Company has set and publicly disclosed its renewable energy target	1
		3.1.4 Scope 1 & 2 climate targets are certified or approved by a third party, such as the Science Based Targets initiative (SBTi) or other initiatives	1
	3.2 Scope 3 Targets (9%)	3.2.1 Company has set and publicly disclosed its ongoing Scope 3 emissions reduction targets	2
		3.2.2 Company has set and publicly disclosed emission reduction targets or low-carbon procurement targets for steel, aluminum and cement	2.5
		3.2.3 Company has set and publicly disclosed its Scope 3 carbon neutrality target	2
		3.2.4 Company has set and publicly disclosed targets for the use of renewable energy in building operations	0.5
		3.2.5 Company has set specific targets to motivate suppliers to set their own climate targets	1
		3.2.6 Scope 3 climate targets are certified or approved by a third party, such as Science Based Targets initiative (SBTi) or other initiatives	1
4. Performance Towards Carbon Targets (14%)	4.1 Progress on Scope 1 & 2 Climate Targets (6%)	4.1.1 Company has publicly disclosed progress made towards its Scope 1 & 2 emissions reduction targets or energy consumption targets	3
		4.1.2 Company has publicly disclosed progress towards its Scope 1 & 2 carbon neutrality target	1
		4.1.3 Company has publicly disclosed progress towards its renewable energy target	2
	4.2 Progress on Scope 3 Climate Targets (8%)	4.2.1 Company has publicly disclosed progress towards its Scope 3 emissions reduction targets	2
		4.2.2 Company has publicly disclosed progress on emission reduction targets or low-carbon procurement targets set for steel, aluminum and cement	2.5
		4.2.3 Company has publicly disclosed progress towards its Scope 3 carbon neutrality target	1
		4.2.4 Company has publicly disclosed progress toward renewable energy utilization in building operations	0.5
		4.2.5 Company tracks its suppliers' climate target setting progress	2
5. Climate Action (38%)	5.1 Decarbonization in Operations (13%)	5.1.1 Company has implemented non-fossil energy use and/or green electricity procurement and disclosed associated emission reductions	4

		5.1.2 Company has implemented energy monitoring and management programs	1
		5.1.3 Company has implemented energy efficiency improvement projects and disclosed associated emission reductions	3
		5.1.4 Company has implemented green and low-carbon building designs and quantify emission reduction potential	1
		5.1.5 Company has implemented other emission reduction projects and disclosed associated emission reductions	2
		5.1.6 Company has partially offset carbon emissions through voluntary carbon market mechanisms, and disclosed associated emission reductions	2
	5.2 Affiliated Company Engagement (6%)	5.2.1 Company affiliates have measured and publicly disclosed their carbon emissions at the facility level	3
		5.2.2 Company affiliates have set carbon targets, tracked and publicly disclosed reduction progress at the facility level	3
	5.3 Decarbonization in Value Chain (10%)	5.3.1 Company has required construction material suppliers to conduct corporate carbon management or energy management	1
		5.3.2 Company has required steel and /or aluminum suppliers to conduct emission reduction actions, and disclose emission reductions performance	3
		5.3.3 Company has required cement and other material suppliers to conduct emission reduction actions, and disclose emission reductions performance	2
		5.3.4 Company has launched emission reduction initiatives with construction logistics suppliers, and disclosed associated emission reductions performance	1
		5.3.5 Company has conducted energy efficiency improvements or the use of renewable energy in building operations, and disclose emissions reduction data	1
		5.3.6 Company has established (or coordinated with customers to establish) recycling mechanisms for used construction materials	0.5

		5.3.7 Company has conducted emission reduction projects targeting other emission sources along the value chain	0.5
		5.3.8 Company has published best practice for emissions reduction of construction materials such as steel, aluminum, and cement	1
	5.4 Supplier independently progress carbon management (9%)	5.4.1 Steel and/or aluminum suppliers have measured and publicly disclosed facility-level carbon emissions	3
		5.4.2 Steel and/or aluminum suppliers have set facility-level carbon targets, tracked and publicly disclosed reduction progress	2
		5.4.3 Cement and other material suppliers have measured and publicly disclosed facility-level carbon emissions	2
		5.4.4 Cement and other material suppliers have set facility-level carbon targets, tracked and publicly disclosed reduction progress	1
		5.4.5 Company employs the Blue EcoChain or other automated methods to empower upstream suppliers to manage supply chain carbon emissions	1
		OR Required steel and/or aluminum suppliers to publicly disclose product carbon footprint	

分数计算 Score Calculation

房地产行业企业气候行动 CATI 指数由 5 个一级指标、13 个二级指标和 52 个三级指标组成。

计算公式：房地产行业企业气候行动 CATI 得分 = $\sum$ 治理机制相关指标得分 + 产品碳足迹指标得分 + $\sum$ 范围 1&2 相关指标得分 * 范围 1&2 行业权重 + $\sum$ 范围 3 相关指标得分 * 范围 3 行业权重

The Real Estate Industry Corporate Climate Action Transparency Index (CATI) consists of 5 dimensions, 13 sub-dimensions, and 52 indicators. **Calculation formula:**

$$\begin{aligned} \text{CATI Score} = & \sum \text{Scores for Governance} + \sum \text{Scores for Carbon Footprint} \\ & + \sum (\text{Scores for Scope 1\&2}) * \text{Weighting factor of Scope 1\&2} \\ & + \sum (\text{Scores for Scope 3}) * \text{Weighting factor of Scope 3} \end{aligned}$$

CATI 指数行业权重

CATI Index Sectoral Weighting Factors

根据房地产行业直接和间接排放情况，对一级指标中的测算披露（16%，产品碳足迹指标 2.3.1（6%）不纳入折算）、碳目标设定（16%）、碳目标绩效（14%）、减排行动（38%）赋予行业权重折算：范围 1+2 vs. 范围 3 上游 = 20%:80%。该折算系数参考学术文献、近期研究报告及领先企业披露的温室气体排放清单。

A weighting factor for real estate sector (Scope 1 & 2 vs. Upstream Scope 3 = 20%:80%) applies across four of the five CATI activity areas: Measurement & Disclosure (16%; Indicator 2.3.1 does not apply), Carbon Targets Setting

(16%), Performance against Carbon Targets (14%) and Climate Action (38%).

The default weighting factors are based on research of various expert reports, academic literature and emissions data publicly disclosed by leading companies from different industries.

数据来源 Sources of Data

房地产行业企业气候行动 CATI 指数的研究依据为企业公开披露的信息，包括但不限于：企业官方网站、年报、CSR 报告、ESG 报告、可持续发展报告等定期报告，官方自媒体平台等公开渠道发布的信息，蔚蓝地图数据库收集的可信源发布的数据，企业公开披露的 CDP 问卷回复，以及企业推动供应商自主披露的气候变化相关信息等。

The data used for Real Estate Industry Corporate Climate Action Transparency Index (CATI) research comes from publicly disclosed information from companies, including but not limited to: official websites, annual reports, CSR reports, ESG reports, sustainability reports and other periodic reports as well as social media; data released by credible sources and collected by the Blue Map database; publicly disclosed responses to the CDP questionnaire; and greenhouse gas emissions data independently disclosed by suppliers with the encouragement of companies.

附录 术语与定义 Appendix Terms and Definitions

1. 供应链 Supply Chain:

生产及流通过程中，涉及将产品提供给最终用户所形成的网链结构，包括多层级供应商。

The chain or network of production and distribution processes through which products are ultimately provided to end-users, and that includes multiple tiers of suppliers.

2. 供应商 Supplier¹

向品牌提供产品和服务的组织，包括但不限于品牌下属工厂等关联企业、生产代工厂、原材料提供商、与生产相关的服务提供商（如污水集中处理设施、固体废物运输和处置单位）、物流供应商。

An entity that provides products and services to a brand, including but not necessarily limited to a brand's subsidiary factories and other affiliates, production subcontractors, raw materials providers, service providers for production processes (e.g. centralized wastewater treatment facilities, solid waste transportation and disposal entities) and logistics providers.

¹ 此定义参考《供应链风险管理指南 GB/T 24420-2009》

This definition references the Supply Chain Risk Management Guidelines (GB/T 24420-2009).

3. 直接供应商 Direct Supplier

直接与品牌签订采购合同的供应商。

A supplier that has directly signed a procurement contract with a brand.

4. 间接供应商 Indirect Supplier

不与企业直接签订采购合同，但在产品生产供应链条上的供应商。

A supplier that has not directly signed a procurement contract with a company, but is a part of the supply chain for the company's main products or services.

5. 关联企业 Affiliated Company/Affiliates:

按照企业运营边界划定方法，关联企业指属于该企业拥有或直接管控的企业，包括自有工厂、门店、仓库、子公司、分公司等。

Based on operational boundary setting methodology, affiliated companies or affiliates refer to companies that are owned or controlled by the researched company, including its own factories, stores and warehouses, as well as its subsidiaries and branches.

6. 蔚蓝生态链 Blue EcoChain:

蔚蓝生态链²是基于蔚蓝地图数据库和 AI 技术的管理工具，可以协助多方实现环境和气候风险的闭环管理，包括及时将供应商披露的温室气体排放数据、减排目标及减排

² <http://www.ipe.org.cn/GreenSupplyChain/GreenEcologyChain.html>

进展通过邮件或手机 APP 推送提醒告知企业，并形成供应商碳数据分析报告。供应商用户也可以通过蔚蓝生态链进行温室气体测算和公开披露，并开展针对自身供应链的碳管理。

Powered by IPE's Blue Map Database and AI technology, Blue EcoChain³ provides supply chain oversight for environmental and carbon risks. In terms of supply chain carbon management, it provides companies instantaneous updates via email or mobile app when suppliers disclose their greenhouse gas emission data, reduction targets and progress, and supplier carbon data analysis reports. It also empowers suppliers to measure and publicly disclose their greenhouse gas emission data and conduct carbon management over its own supply chains.

7. 温室气体 Greenhouse Gas (GHG):

温室气体指《京都议定书》中的七种温室气体：二氧化碳、甲烷、氧化亚氮、氢氟碳化物、全氟碳化物、六氟化硫，三氟化氮。

GHGs are the seven gases listed in the Kyoto Protocol: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); sulphur hexafluoride (SF₆); and nitrogen trifluoride (NF₃).

³ <http://wwwen.ipe.org.cn/GreenSupplyChain/GreenEcologyChain.html>

8. 碳中和 Carbon Neutrality/Net Zero:

在 CATI 指数中，碳中和泛指二氧化碳或温室气体的中和或净零排放，指国家、企业、产品、活动或个人在一定时间内，人类活动产生的二氧化碳或温室气体排放总量与碳清除量达到平衡，实现正负抵消，达到相对“零排放”。

In the CATI Index, carbon neutrality is a state of net-zero carbon dioxide/greenhouse gases emissions. This can be achieved when anthropogenic emissions of carbon dioxide/greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

9. 范围一排放 Scope 1:

企业拥有或控制的排放源产生的直接温室气体排放。

Emissions from operations that are owned or controlled by the reporting company.

10. 范围二排放 Scope 2:

企业使用外购电力、供热/制冷，或蒸汽产生的间接温室气体排放。

Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company.

11. 范围三排放 Scope 3:

范围二以外的其他间接温室气体排放。范围三的排放是一家公司活动的结果，但并不是产生于该公司拥有或控制的排放源。例如，开采和生产采购的原料、运输采购的燃料，以及售出产品和服务的使用。

All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

12. 价值链 Value Chain:

在本指标体系中，价值链指与报告企业运营相关的上游/下游活动，包括产品使用阶段和产品报废处理。

In the CATI Index, "value chain" refers to all of the upstream and downstream activities associated with the operations of the reporting company, including the use of sold products by consumers and the end-of-life treatment of sold products after consumer use.

13. 碳强度 Carbon Intensity:

表示每单位物理活动或经济价值产生的温室气体影响（例如，单位发电产生的 CO₂ 排放量）。

Ratios that express GHG impact per unit of physical activity or unit of economic value (e.g. tonnes of CO₂ emissions per unit of electricity generated).

14. 产品碳足迹 Product Carbon Footprint:

产品体系中的温室气体排放量和温室气体清除量之和，以二氧化碳当量为单位表示，基于使用气候变化单一影响类别的生命周期评价。

Sum of GHG emissions and GHG removals in a product system, expressed as carbon dioxide equivalents and based on a life cycle assessment.

15. 生命周期 Life Cycle:

与产品相关的连续且相互关联的阶段，包括从原材料获取或从自然资源生产到寿命终止处理。

Consecutive and interlinked stages related to a product, beginning from raw material acquisition or generation from natural resources to end-of-life treatment.

16. 碳配额 Carbon Allowance:

排放一定量温室气体的权利。

The right to emit a certain quantity of GHG.

17. IPE 的碳数据披露表 IPE's Carbon Data Disclosure Platform:

供应商可以通过 IPE 碳数据披露表填报并公开披露企业年度温室气体排放数据、能源消耗、气候目标以及碳资产管理情况。

A platform developed by IPE where suppliers can disclose their annual GHG data, energy consumption, climate targets and carbon asset data.

引用文件 Reference:

IPCC, *Global Warming of 1.5°C, Annex I: Glossary*

IPCC WGIII, *Climate Change 2022 Mitigation of Climate Change*

ISO, *ISO 14067: 2018*

WBCSD & WRI, 《温室气体核算体系：企业核算与报告标准》 *The GHG Protocol Corporate: A Corporate Accounting and Reporting Standard*

WBCSD & WRI, *The GHG Protocol Corporate: Corporate Value Chain (Scope 3) Accounting and Reporting Standard*

WBCSD & WRI, *The GHG Protocol Corporate: Product Life Cycle Accounting and Reporting Standard*

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公众环境研究中心（IPE）是一家在北京注册的公益环境研究机构。

自 2006 年成立以来，IPE 开发并运行蔚蓝地图数据库（www.ipe.org.cn），2014 年上线“蔚蓝地图”APP，推动环境信息公开，赋能绿色供应链和绿色金融，助力企业绿色转型和低碳发展，促进多方参与环境治理，共同守护地球家园。

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