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PERFORMANCE IS THE FUTURE
性能决定未来

让我们这一代每个人体验绿色建筑

**GREEN BUILDINGS
FOR EVERYONE WITHIN
THIS GENERATION**



Histroy of Green Building

- 1st Global Environmental conference in Stockholm
斯德哥尔摩世界环境会议

1972

1987

- WCED: concept of "sustainable development"
"世界环境与发展委员会"提出"可持续发展"的概念。



1993

- Establishment of USGBC
成立美国绿色建筑委员会



1995

- Establishment of Robeco SAM, a basic assessment body for the DJSI
成立道琼斯可持续发展指数的基础评估机构RobecoSAM。



2000

- LEED™ comes out
能源与环境设计先锋(LEED) 评级体系问世。



2003

- The World Bank launched the Equator Principle
世界银行发起赤道原则。



2006

- Annan launched the PRI
安南启动"负责任的投资原则"

2007

- Establishment of GRESB
成立全球房地产可持续发展基准。



2019

- S&P Dow Jones Indices launched the Green Real Estate Index Serie
标准普尔道琼斯指数推出绿色房地产指数系列

LEED in Worldwide

LEED在全球



175

Countries & Territories



98,000+

Commercial Projects



3 Million+

square feet certified LEED daily



201,000+

LEED Professionals

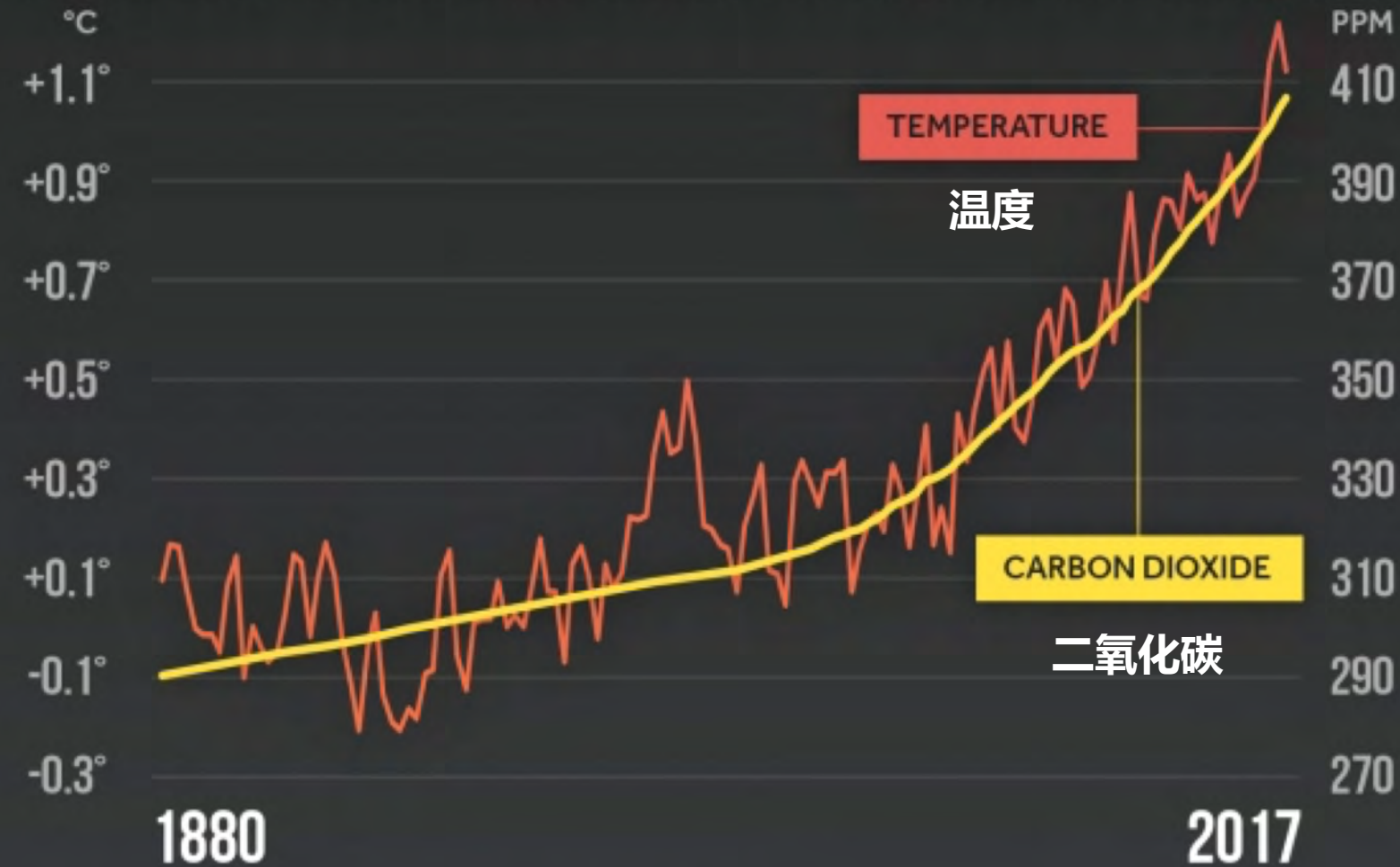


12,000+


Members

全球温度和二氧化碳上升趋势图

GLOBAL TEMPERATURE & CARBON DIOXIDE



Global temperature anomalies averaged and adjusted to early industrial baseline (1881-1910)
Source: NASA GISS, NOAA NCEI, ESRL

CLIMATE  CENTRAL



1.5 °C

ZERO



#AdvancingNetZero @WorldGBC

Advancing Net Zero

A World Green Building Council global project



WorldGBC definition:

A net zero carbon building is highly energy efficient with all remaining energy from on-site and/or off-site renewable sources

100% of buildings must operate at net zero carbon

2050

2030

All new buildings must operate at net zero carbon

Key Principles

1. Measure and disclose carbon

Carbon is the ultimate metric to track, and buildings must achieve an annual operational net zero carbon emissions balance based on metered data



2. Reduce energy demand

Prioritise energy efficiency to ensure that buildings are performing as efficiently as possible, and not wasting energy



3. Generate balance from renewables

Supply remaining demand from renewable energy sources, preferably on-site followed by off-site, or from offsets



4. Improve verification and rigour

Over time, progress to include embodied carbon and other impact areas such as zero water and zero waste

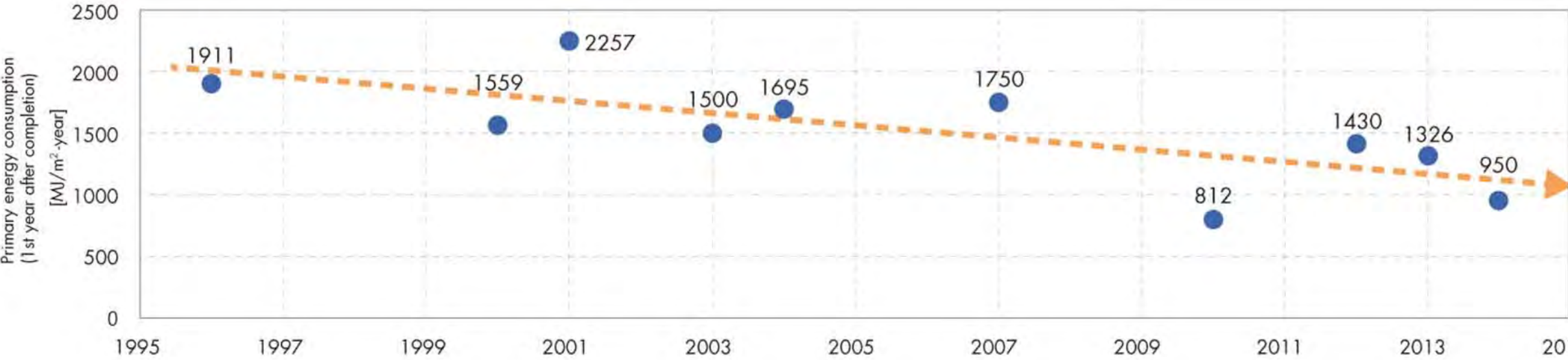


Timeline for green architecture

绿色建筑时间轴

	1993	1996	1998	2000	2001	2003	2004	2007	2010	2011	2012	2013
completion												

Covers environmental performance (primary energy consumption, CO₂ emissions, CASBEE, LEED), environmental methods, and methods for validating their performance



次能源使用量

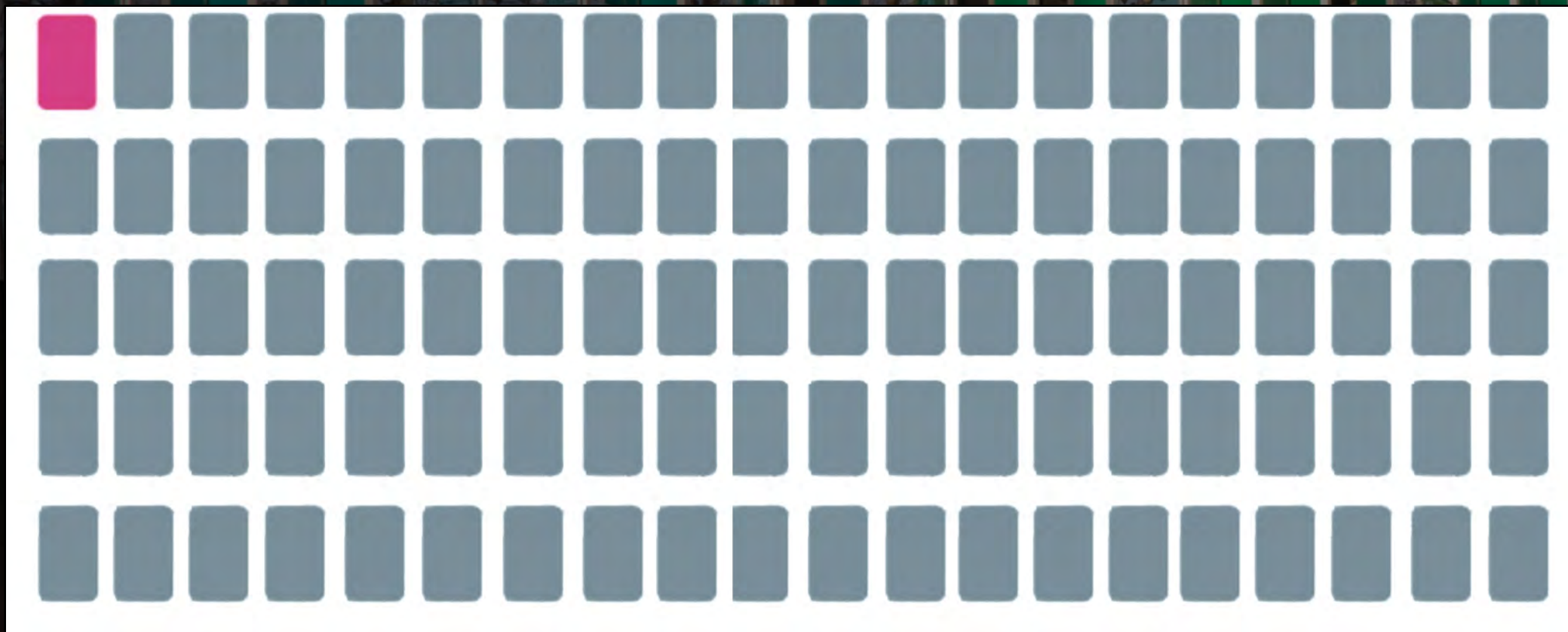
Zero Energy Building Growth 零能耗建筑的增长趋势图



The background of the image is a close-up, slightly blurred view of a building's facade. It is covered with a dense, repetitive pattern of white, rectangular air conditioning (AC) units. These units are mounted on metal brackets and are arranged in vertical columns. Some units have their fans visible, while others are partially obscured by pipes or other units. The overall color palette is muted, with the white of the AC units contrasting against the darker, greyish-brown tones of the building's structure and the shadows. A dark, semi-transparent rectangular overlay is positioned in the center of the image, containing the text in white.

HOW ABOUT EXISTING BUILDINGS

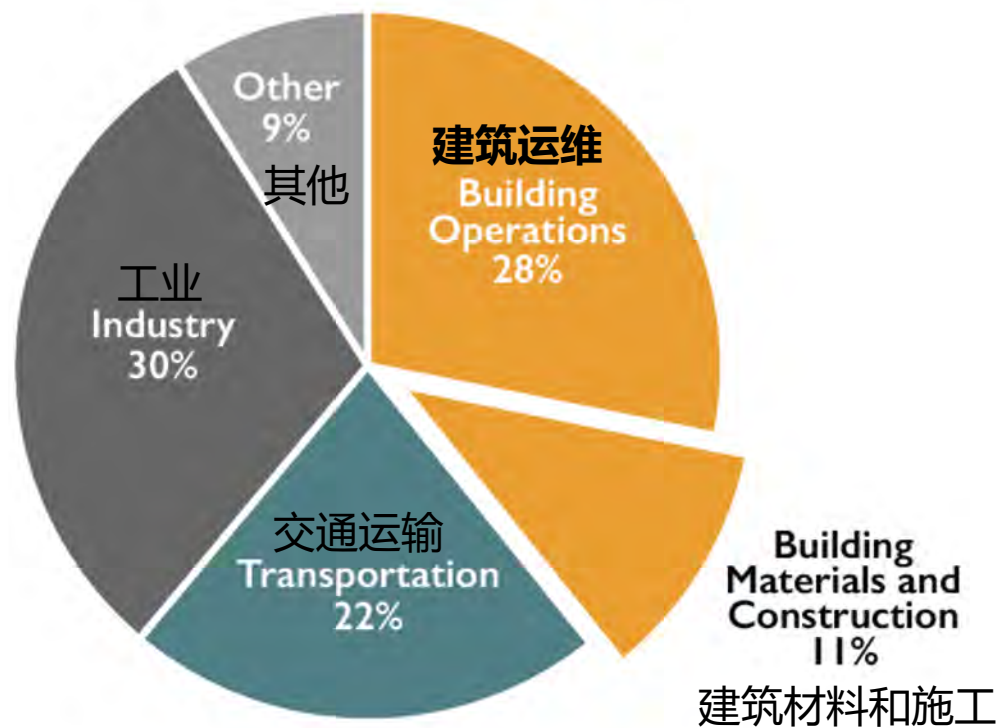
既有建筑的未来之路



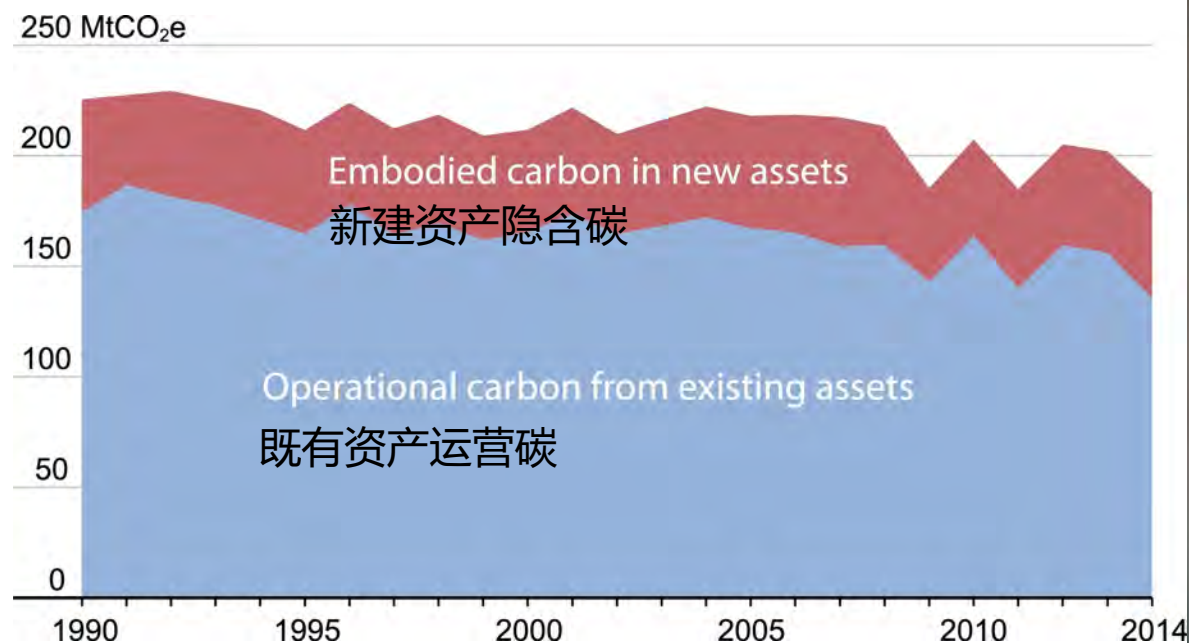
Existing Building Stock 存量房: 50 Billion m^2
New Building/year 每年新建房: 500 Million m^2

全球二氧化碳排放源

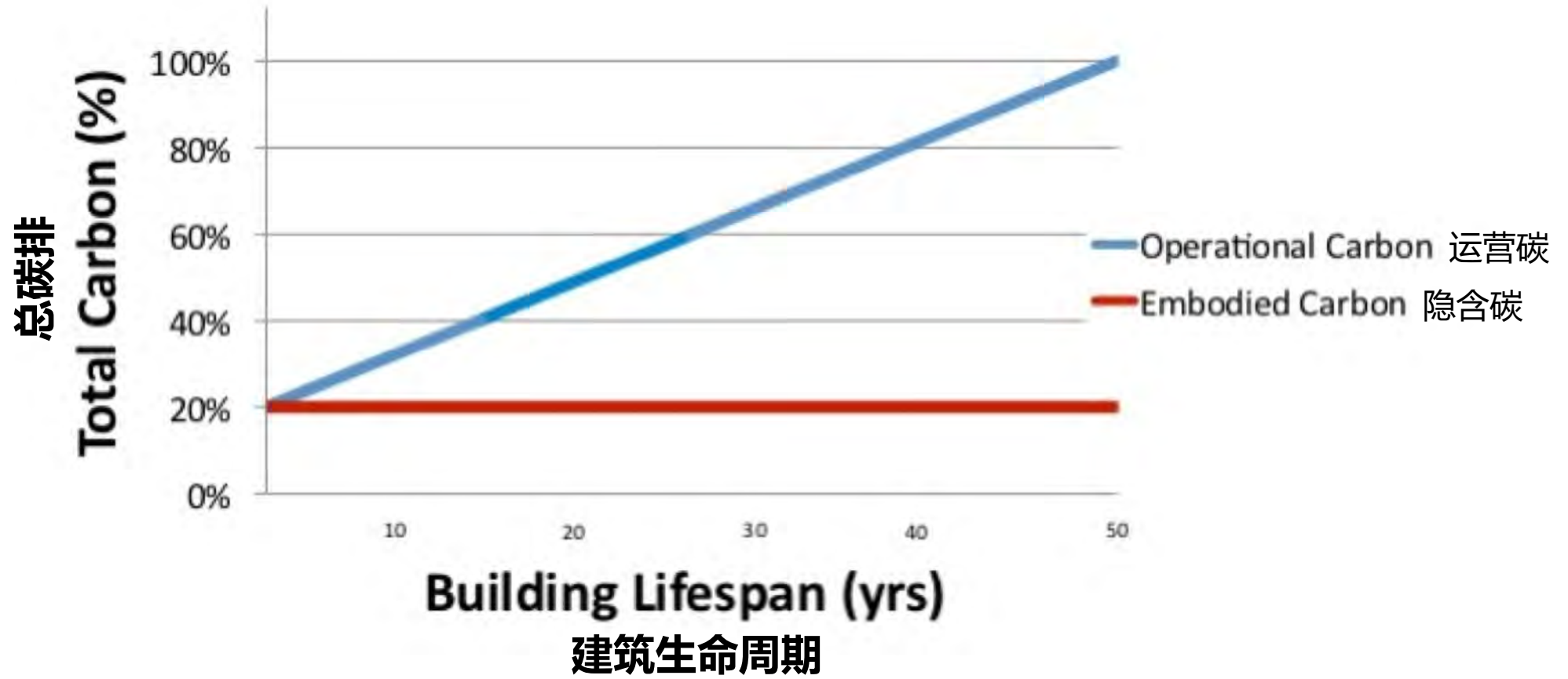
Global CO₂ Emissions by Sector



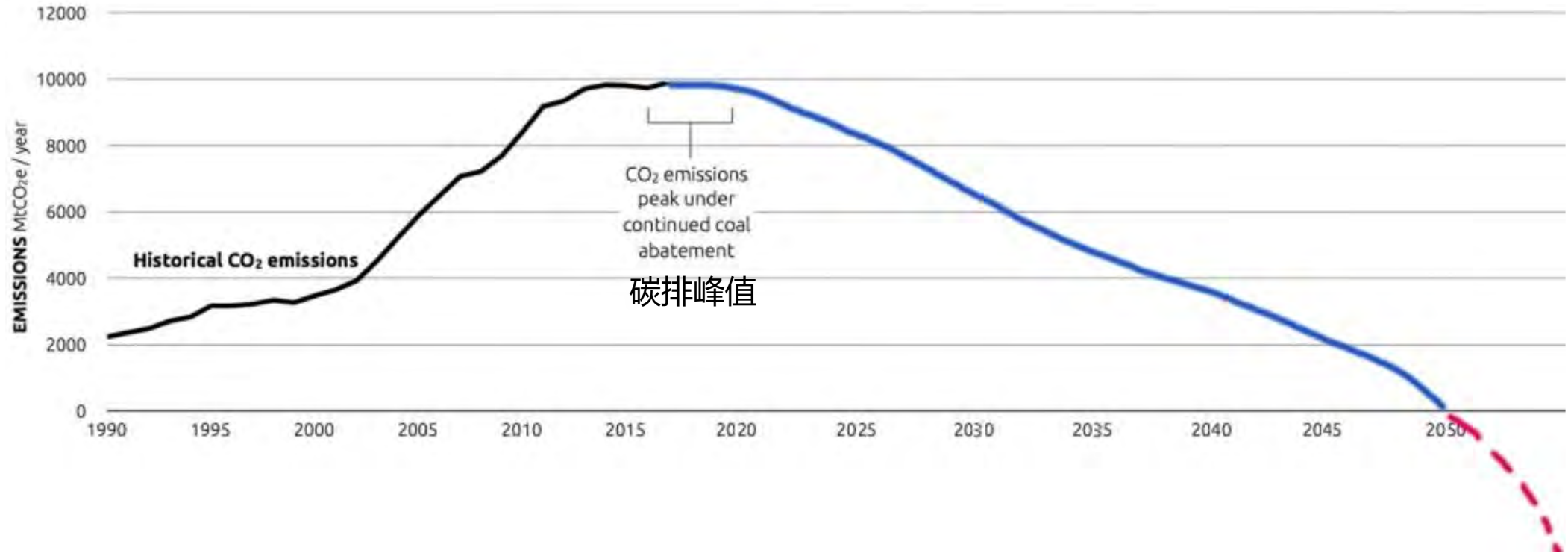
Source: © 2018 2030, Inc. / Architecture 2030. All Rights Reserved. Data Sources: UN Environment Global Status Report 2017; EIA International Energy Outlook 2017



Today's Carbon Trend 当今碳排趋势

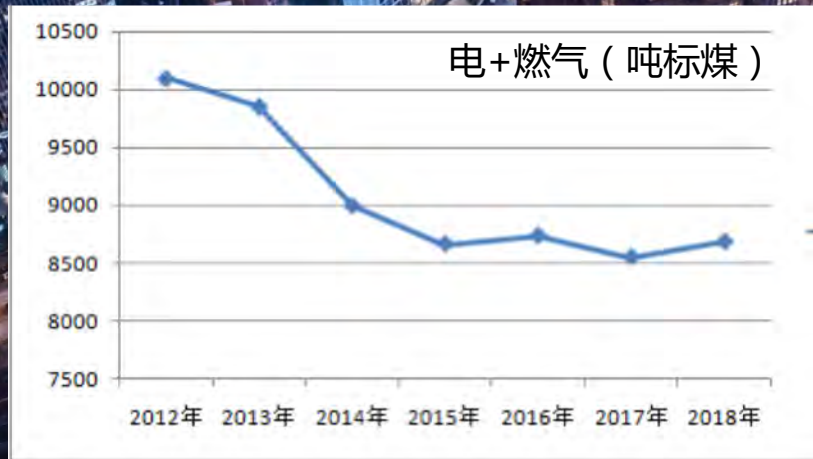


Performance is the Future – Existing Building 性能决定未来 – 既有建筑

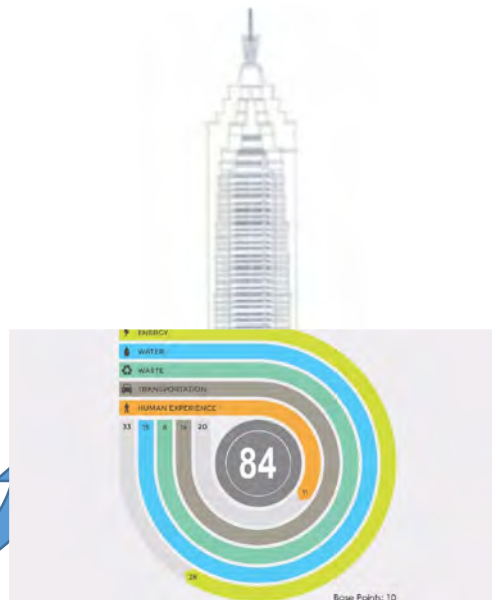




金茂的LEED演变史



2013年
LEED EB v2009金级
得分：69分



2019年
LEED O+M v4.1铂金级
得分：84分

北京

576个LEED项目;58个EB项目
EB项目比例 10%

上海

1,136个LEED项目;75个EB项目
EB项目比例 7%

纽约

2,992个LEED项目;462个EB项目
EB项目比例 15.44%

芝加哥

1,862个LEED项目;321个EB项目
EB项目比例 17.24%



Takeaway – 3

Facts

1

By 2030, cities will account for 73 percent of world energy use. In most cities, buildings account for more than half of this consumption.

到2030年，城市将占世界能源消耗的73%，在大多数城市，建筑将占超过一半的能源消耗。

2

75 percent of the urban infrastructures that will exist in 2050 hasn't been built yet, presenting a huge opportunity to shape more resource-efficient cities.

2050年，75%的城市基础设施尚未建成，这为塑造资源效率更高的城市提供了巨大的机遇。

3

90 percent of the existing building stock in the world will be still be in use in 2050, so enhancing performance of exiting buildings is critical in reducing energy & water use and carbon emissions.

到2050年，世界上90%的既有建筑仍然在使用，因此，提高既有建筑的性能对于减少能源和水的使用以及碳排放至关重要。

THANK YOU



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