

让我们这一代每个人体验绿色建筑

**GREEN BUILDINGS
FOR EVERYONE
WITHIN
THIS GENERATION**



US and China Cooperation On Eco-Cities

美中在生态城市领域的合作



Mark Ginsberg

USGBC Senior Fellow

**美国绿色建筑委员会'资深
研究员 马克·金斯伯格**



GROWTH

is straining our systems

增长使我们身心疲惫

Half of all cities are dealing with climate change.



有一半的城市要应对气候改变。



**POOR INDOOR AIR QUALITY
LOWER PRODUCTIVITY**

**恶劣室内环境质量
生产率低下**



50%

OF ALL NEW CONSTRUCTION
THROUGH 2015 WILL OCCUR
IN CHINA

到2015年，50%的新建建筑将来自中国。



2008 Olympic Village 奥运村



Micro-Energy Welcome Center at the 2008 Olympic Village - Open Summer, 2008

2008年奥运村的微能源接待中心 – **2008**年夏季开放



**ENERGY
USE**

能耗

24%* -50%**

**CO₂
EMISSIONS**

碳排放

33%*** -39%**

**WATER
USE**

水耗

40%**

**SOLID
WASTE**

固体废弃物

70%**

绿色建筑可以减少

Green Buildings Can Reduce...

* Turner, C. & Frankel, M. (2008). Energy performance of LEED for New Construction buildings: Final report.

** Kats, G. (2003). The Costs and Financial Benefits of Green Building: A Report to California's Sustainable Building Task Force.

*** GSA Public Buildings Service (2008). Assessing green building performance: A post occupancy evaluation of 12 GSA buildings.

NEW BUILDINGS
新建建筑

Median operating cost savings
节约运营成本

8%-15%

Increased building values
提升建筑物的价值

5%-7%

RETROFITS
既有建筑改造

Median operating cost savings
节约运营成本

9%-13%

TOP REASONS FOR GREEN WORK

绿色建筑的首要原因

Customer demand
客户需求

Market demand
市场需求

Lower operating costs
降低运营成本

Branding advantage
品牌优势



We must **engage**
我们必须携手各方人士

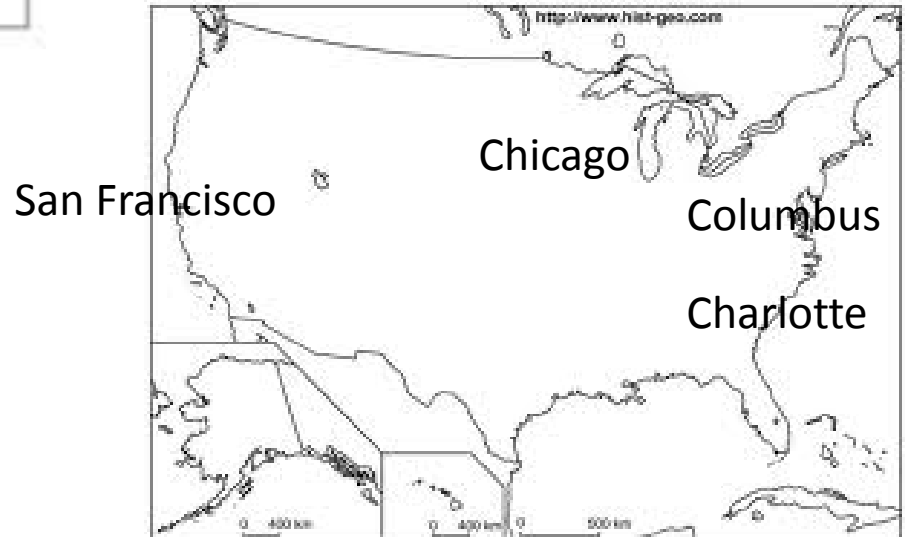
Cities are Partnering

城市间结为合作伙伴



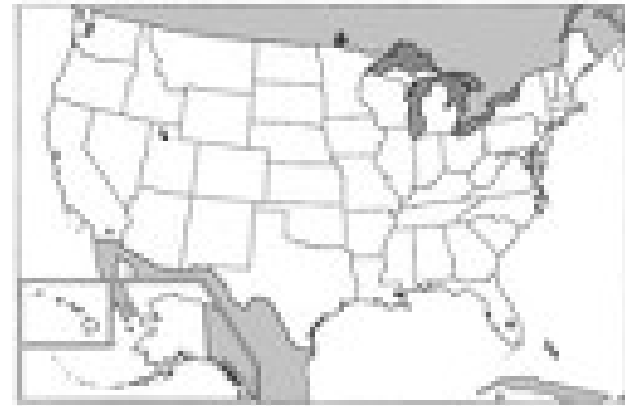
合肥 - 哥伦布
廊坊 - 夏洛特
上海 - 芝加哥

Hefei - Columbus
Langfang - Charlotte
Shanghai - Chicago





And Now... 现在



MOHURD
住建部



US DOE
美国能源部

Working Together 携手合作

Eco-Cities MOU to Work With 6 Cities in China
生态城MOU将推进与中国6个城市的合作

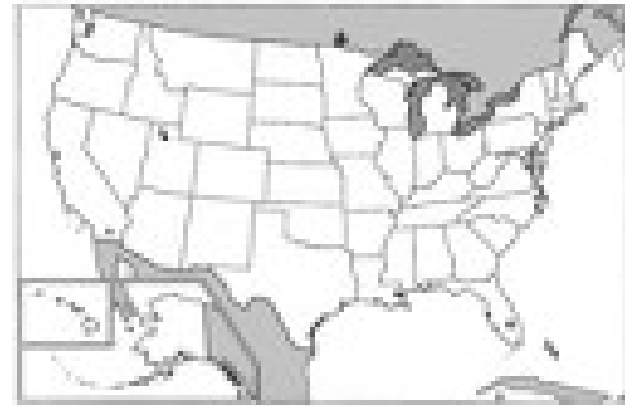
- **Hefei 合肥**
- **Langfang 廊坊**
- **Hebi and Jiyuan in Henan Province 河南省鹤壁和济源市**
- **Rizhao and Weifang in Shandong Province 山东省日照和潍坊市**

And 3 Cities in the US 以及美国3个城市

- **San Francisco, Columbus, Ohio and Charlotte, NC**
- **旧金山、哥伦比亚市（俄亥俄州）、和夏洛特市（北卡罗来纳州）**



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美丽的生态城市建立与生态城市原则之
上

**Beautiful Eco-Cities of the Future are Built
on Eco-City Guidelines**

发展目标 “零能耗建筑”

Moving Toward “Zero Energy Buildings”

- 高效能的建筑，这些建筑生产自身所需的能源——他们使用的能源量不超过他们所能生产的能源量
- 50-70%的效率+ 现场或购买的绿色能源（占30-50%）=100%
- 一体化建筑系统整合 + 最好的建筑材料+远见+设计 =
零能耗建筑..... 在我们有生之年能够实现！
- Buildings that are energy efficient, and produce their own energy—over the course of the year, they don't use more energy than they produce
- Efficiencies of 50-70% *plus* on-site or purchased green power 30-50% = 100%
- Whole Buildings Systems Integration + Best Components + Vision + Design =
Zero Energy Buildings ... in our lifetime!

引领至零能耗社区和城市可持续发展的概念

Leading to The Concept of Zero Energy Communities and Sustainable Cities

“万物皆资源.....无物无一用。”

*“Everything is a
resource...nothing is waste.”*

1. 整合能源技术

城市废物也是资源 → 生物燃料和电力

作为发电厂的建筑 → 太阳能、地热

1. Integrating Energy Technologies

Municipal waste is a resource →
Biofuels and Power

Buildings as Power Plants →
Solar, Geothermal

2. 应用先进的技术

零能耗建筑

工业过程

2. Applying Advanced Technologies

Zero Energy Buildings

Industrial processes

Cities of the Future 未来的城市

Cities of the Future
Will be successful...only
if they are GREEN

城市的未来
能否成功...取决于是否环保

Cities of the Future 未来的城市

经济开发保证今天的利益

Economic Development
is a guarantee for today...

先进技术保证明天的利益

Advanced Technologies
are a guarantee for
tomorrow....

绿色经济与生态城市保证
永久的利益

The Green Economy and
Eco-Cities are a
guarantee forever

旧金山的生态城市工程

Eco-City Projects in San Francisco



Candlestick Point 烛台角/
Hunters Point Shipyard 猎人角码头
Treasure Island 金银岛

**San Francisco's Newest
Sustainable Neighborhoods**

旧金山最新的可持续发展社区



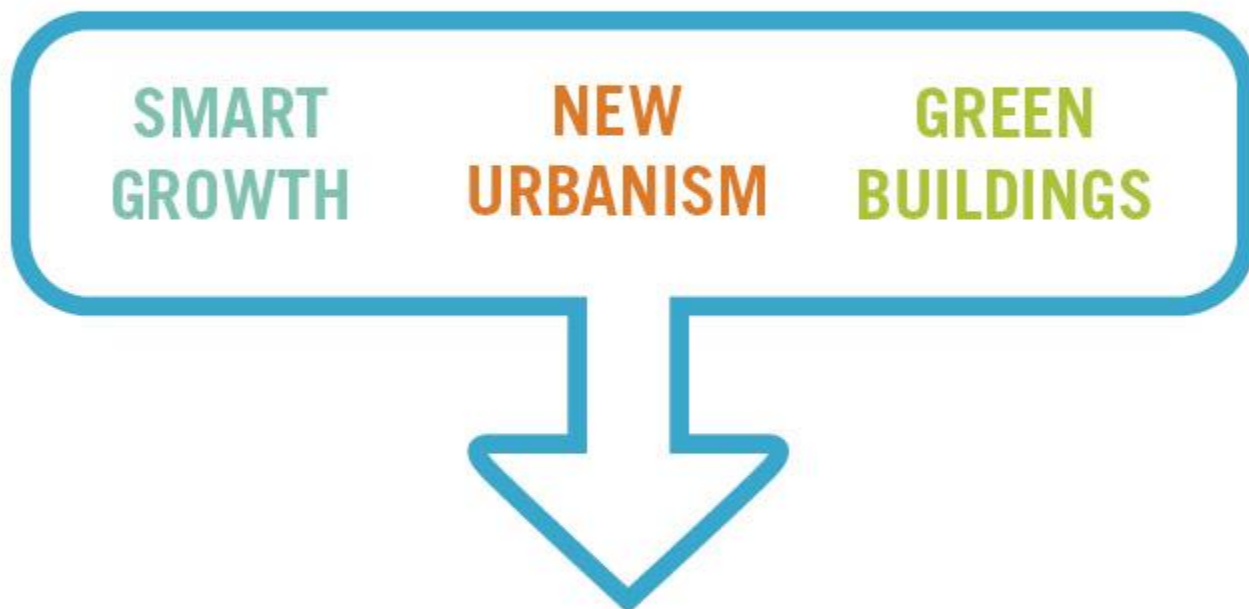


**LEED FOR
NEIGHBORHOOD
DEVELOPMENT**

**LEED
社区开发**

What LEED-ND Is:

精明增长 新城镇主义 绿色建筑



IMPROVED QUALITY OF LIFE

提高生活品质

The Benefits: Triple Bottom Line

更强健的经济 更干净的环境 更强健的经济

HEALTHIER
communities

CLEANER
environment

STRONGER
economy

LEED-ND 的优势

**The Benefits of
LEED-ND**

Credit Categories

LEED® for Neighborhood Development

Total Possible Points 110***



Smart Location & Linkage

27



Neighborhood Pattern & Design

44



Green Infrastructure & Buildings

29

** Out of a possible 100 points + 10 bonus points*

*** Certified 40+ points, Silver 50+ points,
Gold 60+ points, Platinum 80+ points*



Innovation & Design Process

6



Regional Priority Credit

4

LEED 社区开发

精明选址和连接性

邻里形态和设计

绿色设施和建筑

创新与设计过程

地域优先得分点

Eco-City Guidelines

生态城市指导方针

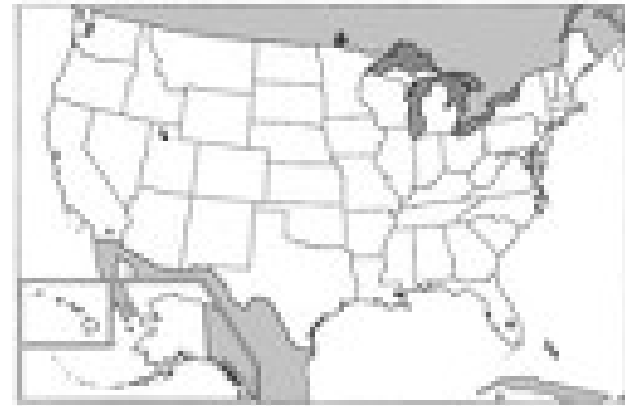
1. 为城市和邻近地区建立全面的能源计划
2. 设计紧凑而混合功能的社区，配置步行道、自行车道、公园、学校、和商店。
3. 推行高水准的建筑标准
4. 可再生能源使用目标**100%**
5. 推行清洁而高效的公共交通
6. 利用“产业共生”
7. 包括水、废水、和固体废弃物
8. 确立有效的运营和过程持续提高机制

Eco-City Guidelines

1. **Develop a Comprehensive Energy Plan for the City and Surrounding Area**
2. **Design compact, mixed use communities with walkways, bikepaths, parks, schools and stores**
3. **Require aggressive building standards**
4. **Set a renewable energy goal of 100%**
5. **Require clean and efficient public transportation**
6. **Utilize “industrial symbiosis”**
7. **Include water, waste water and solid waste**
8. **Establish effective operations and continuous Process Improvement**



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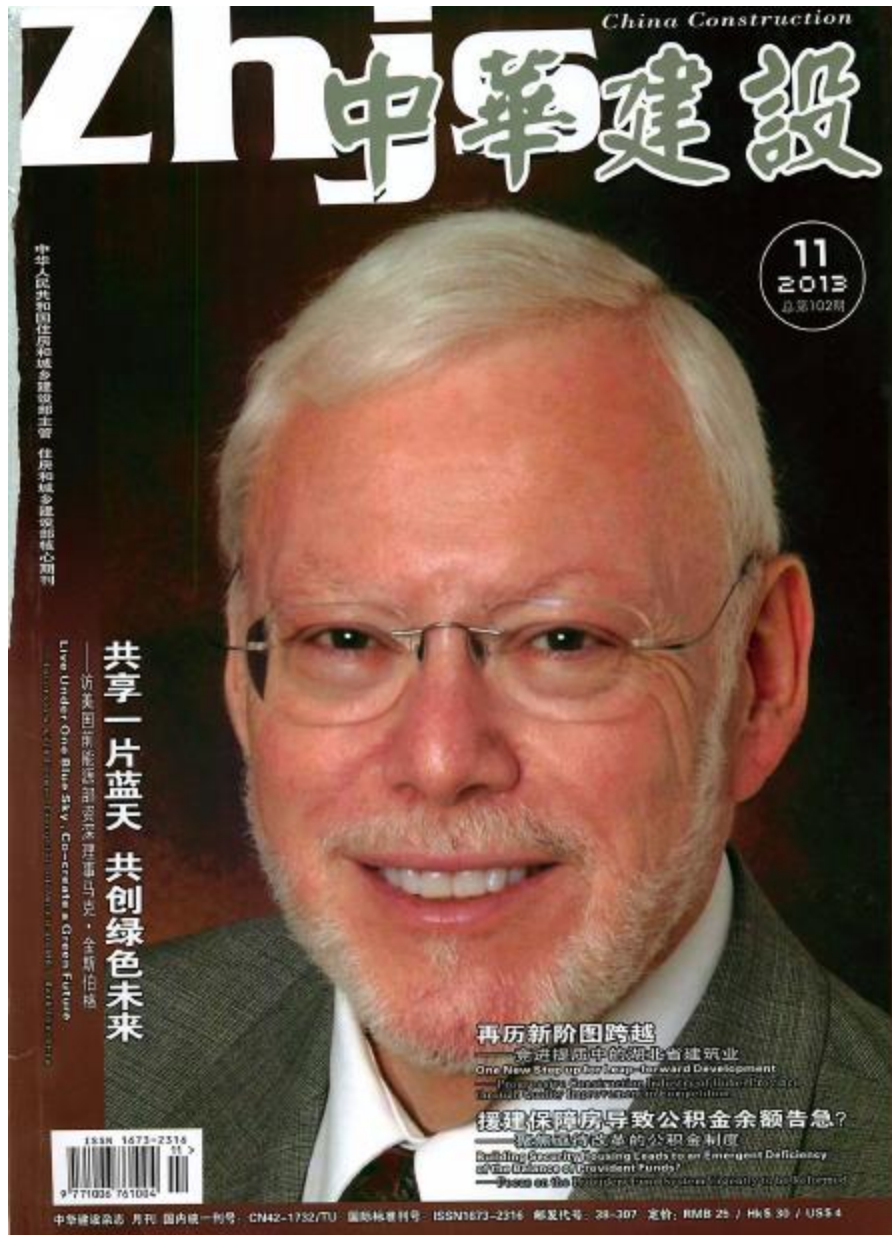
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Everyone in a green building within this generation.

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- China Construction Magazine
- mginsberg@usgbc.org
- www.usgbc.org