



**Building Efficiency
Accelerator**



Energy efficiency as a catapult to zero carbon buildings: Raising city ambition

*4 June 2019
ecee Summer Study*



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BUILDING
COUNCIL

Johnson
Controls



P4G
Partnering for Green
Growth and the
Global Goals 2030

With support from:



UN
environment



BEA Technical Providers & Network Amplifiers

Lead Institution:



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WRI ROSS CENTER FOR
SUSTAINABLE
CITIES

NGOs & Multilaterals:



WORLD
GREEN
BUILDING
COUNCIL



World Business Council for
Sustainable Development



International
Energy Agency



International
Finance Corporation
WORLD BANK GROUP



PIONEERED BY THE
ROCKEFELLER FOUNDATION



Corporates:



Inspiring
Business



中国节能
CHINA ENERGY CONSERVATION AND
ENVIRONMENTAL PROTECTION GROUP

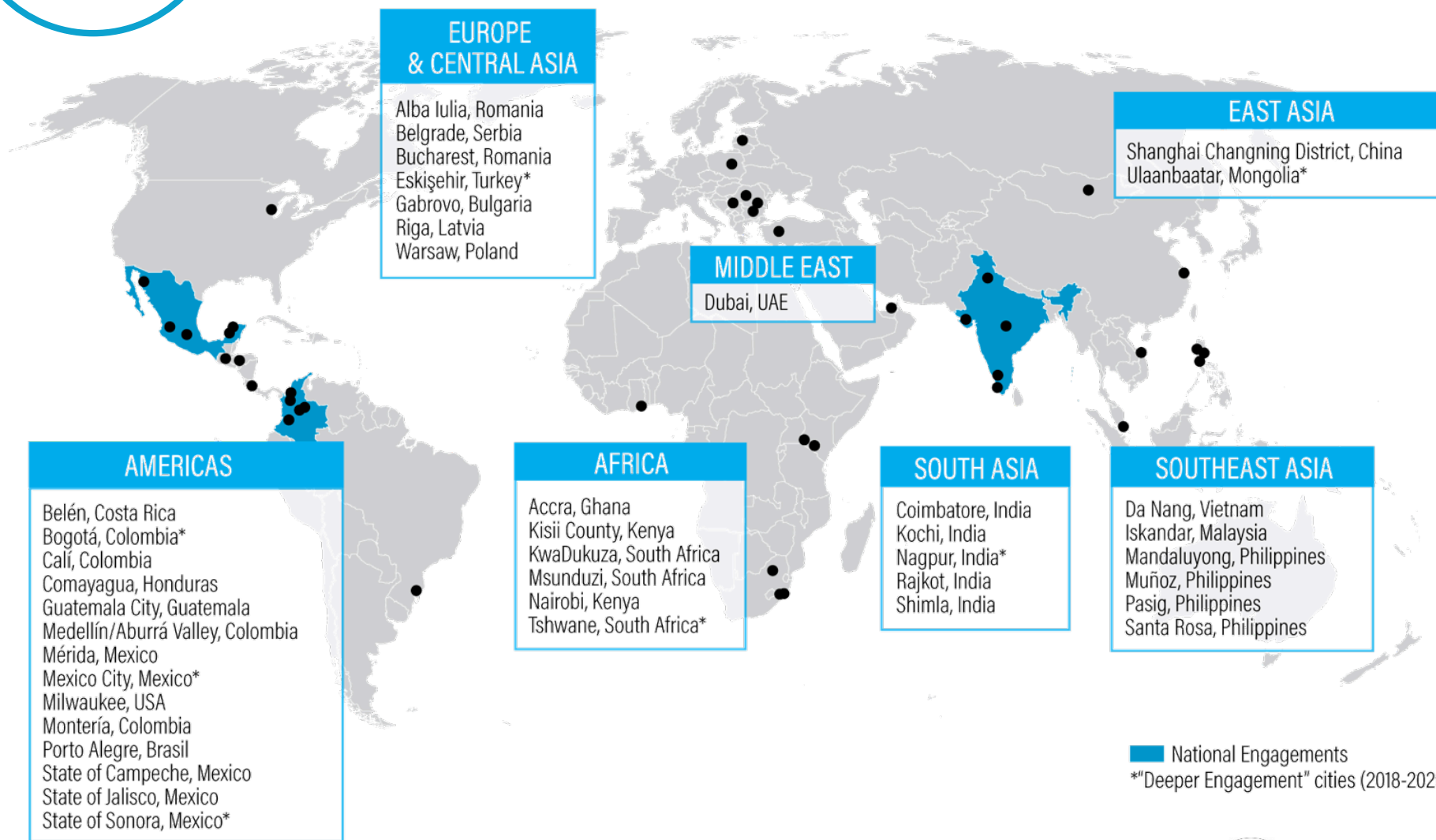


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BEA cities are taking action





What are cities signing up to do?

Work toward
the BEA vision

Global vision

By 2030, all new buildings are highly-efficient and zero-carbon.
By 2050, all buildings are highly-efficient and zero-carbon.

Adopt and
Implement
an enabling **policy**

Implement a **pilot program**
designed to be scaled to
additional buildings

Act on three
specific
commitments

1. Policy

2. Pilot Program

Set goals, track and report progress.
Share experiences with other governments.

3. Tracking and communication



Startup: 2015-2017 BEA Accomplishments



253 CITIES

reached with Building Efficiency Accelerator (BEA) resources



47 COMMITMENTS
on building efficiency action from
25 CITIES



**9 GLOBAL
& REGIONAL EVENTS**
with 300+ participants



18 LOCAL EVENTS
meetings and workshops
with 500+ participants



21 WEBINARS
with 1,000+ participants
from 121 countries

9 BEA cities engaged with potential funders at 2017 SEforALL Forum to discuss projects with investment potential of at least

\$1.5 BILLION USD



**8.3 MILLION TONS
CO₂ EQUIVALENT**

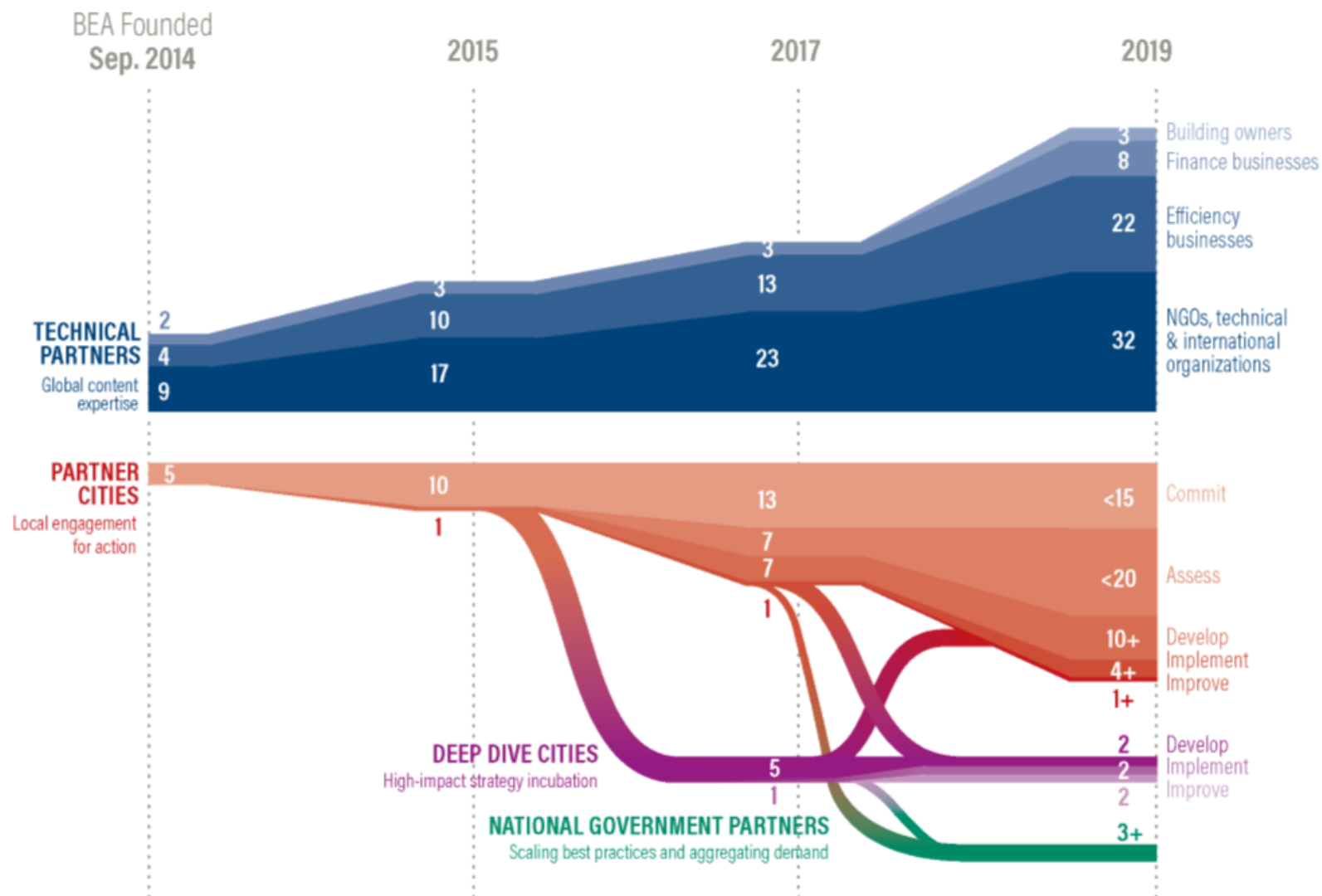
Avoided through 2030 based on BEA deep dive city actions under development, saving over \$1B in energy costs



Learn more at buildingefficiencyaccelerator.org



2018-2020: Scaling the platform





2018-2022 and beyond: Global movement towards Zero Carbon Buildings to stay under 2° warming

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

GOVERNMENT
ENGAGEMENT

TRAINING &
EDUCATION

CORPORATE
ENGAGEMENT

CERTIFICATION

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



Version 1 | March 2018



How do we get to Zero Carbon Buildings?

- EE as first step
- Education and socialization
- Definitions matter!
 - On-site + off-site (↑ feasibility)
 - Embodied carbon (↑ difficulty, ↑ impact)
 - District and portfolio scale (↑ feasibility, ↑ complexity)
 - Consider infrastructure beyond buildings (↑ complexity)



Applying 4 years of BEA lessons to achieving ZCBs

- Expand engagement among national and subnational governments + private sector
- Encourage cities to increase the ambition of their commitments quickly!
 - Show what is possible today

... + Continued importance of prioritization and pre-development