Research reveals how cities of any size can achieve their 2030 emission reduction targets

Roadmaps from C40 Cities and McKinsey Center for Business and Environment identifies biggest opportunities for emissions reduction

Strategic approach to setting priorities means cities can deliver 2030 emissions targets.

Bonn, Germany (12 November 2017) — Cities now have a clearer understanding of the actions that could deliver the greatest emissions reductions by 2030, making it easier to deliver their share of the Paris Agreement goals. C40 and the McKinsey Center for Business and Environment today released a report identifying the biggest opportunities for emissions reduction and what they will mean for different types of cities around the world.

The report highlights 12 opportunities across four action areas that have the greatest potential in most global cities to curb emissions and put cities on a track to help limit global temperature rise to 1.5°C. The research builds on C40’s, Deadline 2020 targets which defined the emissions reductions that cities need to achieve to deliver on the 1.5°C goals of the Paris Agreement. The report recommends that cities pursue a strategy of “focused acceleration” in specific carbon reduction opportunities, that will deliver the greatest progress in the shortest amount of time in order to reach net-zero carbon by 2050.

The study suggests that, as opposed to working simultaneously on hundreds of potential actions, cities can achieve 90-100% of required emissions reductions by focusing on 12 opportunities in these four action areas: (1) Decarbonizing the grid (massive expansion of large-scale renewable power generation); (2) Optimizing energy efficiency in buildings; (3) Enabling next-generation mobility; and (4) Improving waste management.

As no single solution can apply for all cities worldwide, the report also includes sample road maps for six illustrative city types. For example:

- A large sprawling low-income city like Mumbai or Jakarta might focus on enhancing mass-transit, walking and cycling infrastructure, while a denser, high-income city with good existing mass transit infrastructure like Copenhagen might focus more on enabling adoption of shared, connected, electric vehicles.

- A fast-growing city, like Nairobi, might focus on pushing ultra-high efficiency standards in new buildings, whereas a slower growing city like New York with many older buildings might focus more on high-efficiency retrofits to the heating, ventilation and air conditioning systems in existing buildings.

- A semi-dense city like Mexico City might collaborate with its utility providers to enable rooftop and community solar because it has the land and appropriate roof space, whereas a city with state and national level support for expansion of large-scale renewables, like Beijing, might focus on achieving a balanced mix of centralized renewables on the grid including solar, wind, and hydro.
The report lays out pathways for six city types, allowing cities to self-identify possible pathways for their own action plans. By implementing a focused acceleration approach to setting climate action priorities across the 12 opportunities, cities could achieve 90 to 100 percent of the 2030 emissions targets that Deadline 2020 has shown are necessary for cities to cut emissions in line with the Paris Agreement target to constrain average global temperature rise below 1.5 degrees Celsius.

“The task is formidable, but with focused acceleration cities have a real opportunity to dramatically cut their emissions by 2030.” said Stefan Knupfer, Senior Partner, McKinsey & Company, who leads the firm’s Sustainability Practice and its Global Mobility Initiative. “Focusing on the highest impact opportunities will also help cities develop the skill sets and expertise to achieve the reductions needed to reach a zero carbon future by 2050.”

“C40’s Deadline 2020 research showed that by 2030 C40 cities need to have delivered massive pollution reductions, reducing average emissions per person by two thirds” said Mark Watts, Executive Director, C40. “This report will provide invaluable insight for mayors as they decide on where to focus their effort and resources to meet these targets and deliver a prosperous, low carbon future for their citizens.”

The investment required to achieve 2030 emissions targets is significant: roughly $50 to $200 per metric ton of carbon. However, all opportunities presented in the report provide a positive return on investment in the mid to long term, whether through direct cash flow for investors (for example, in the case of renewables and efficiency improvements) or broader boosts to economic activity in the city (for example, transit-oriented development). For many opportunities, up-front investments are paid back within five to ten years.

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About C40

C40 Cities connects more than 90 of the world’s greatest cities, representing 650+ million people and one quarter of the global economy. Created and led by cities, C40 is focused on tackling climate change and driving urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing and economic opportunities of urban citizens.

About McKinsey Center for Business and Environment

The McKinsey Center for Business and Environment works with businesses, governments, and nonprofits to tackle some of the world’s most pressing and important natural resource issues in ways that improve both economic growth and resource use.

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