

How Do Communities Reach Carbon Neutrality? These 8 Projects Begin to Answer this Question.

The Carbon Neutral Cities Alliance Innovation Fund has made awards for cities to explore net-zero energy, district heating systems, hydrogen re-fueling stations, and other tools to achieve deep carbon reductions.

It's not yet clear how cities will reach their carbon neutrality goals, so Carbon Neutral Cities Alliance members are working together to test transformational ideas across national boundaries. The [Carbon Neutral Cities Alliance](#) is a collaboration of global cities committed to reducing greenhouse gas (GHG) emissions by at least 80 percent by 2050 or sooner—the most ambitious GHG emission reduction targets undertaken by any cities across the globe.

The Carbon Neutral Cities Alliance (CNCA) Innovation Fund was created in early 2015. It is based on the USDN Innovation Fund model to invest in high-potential, city-led projects that develop, test, implement, and amplify deep urban de-carbonization strategies and practices around the world. In July, the Fund awarded its first round of projects: eight grants totaling \$702,500.

These projects, selected by a committee of CNCA member cities, are building a portfolio of tools for cities to use to achieve deep carbon reductions. They collaboratively address cross-cutting issues faced by cities striving for carbon neutrality. Awarded projects include:

1. New Financial and Delivery Models for Retrofitting Buildings (\$120,000)

Lead Cities: London and Copenhagen

Other Participating Cities: New York City, Stockholm, Oslo, Sydney, Washington DC, and Santa Monica

Description: This project will evaluate the viability of the Dutch “Energiesprong” deep building retrofit model in London and three additional cities in the UK and examine innovative financing mechanisms to support deep building retrofits.

2. Accelerating the Transition to 4th Generation District Heating Systems (\$125,000)

Lead City: London

Other Participating Cities: Vancouver, Minneapolis, Washington DC, Seattle, London Boroughs, Gothenburg, Rotterdam, Cologne, and Genoa

Description: This project will develop a roadmap for London to transition buildings to “4th Generation” district heating networks supplied by local, renewable heat sources.

3. Natural Gas, Fuel Oil & Related Thermal Energy De-Carbonization Strategies (\$75,000)

Lead City: Boulder

Other Participating Cities: San Francisco, Vancouver, Portland, Boston, Washington DC, and New York City

Description: This project will develop strategies for decarbonizing thermal energy systems (heating, cooling, process uses) in different building types in two cities: residential and commercial/light industrial buildings in Boulder, CO and municipal buildings in San Francisco, CA.

How Do Communities Reach Carbon Neutrality? These 8 Projects Begin to Answer this Question.

4. Mobility: Up-scaling Green Vehicles (\$35,000)

Lead Cities: Copenhagen

Other Participating Cities: London, Stockholm, Oslo, San Francisco, Amsterdam, Hamburg, and Sacramento

Description: This project will advance critical green vehicle infrastructure, financing and coordinated demand in Northern Europe by strengthening collaboration between local and national governments and private sector stakeholders.

5. A Blueprint for Development Approval of Hydrogen Re-fueling Stations (\$72,500)

Lead City: Sydney

Other Participating Cities: Melbourne, Moreland, Berlin, Copenhagen, London, Oslo, Stockholm, Boston, New York City, San Francisco, Seattle, Vancouver, and Yokohama

Description: This project will create a blueprint for facilitating development approvals for hydrogen vehicle re-fuelling stations in Sydney and Melbourne.

6. Accelerating Net-Zero Energy High-Rise Residential Buildings in Australia (\$60,000)

Lead City: Sydney

Other Participating Cities: Melbourne

Description: This project will develop strategy for accelerating market transformation to net-zero energy high-rise (6 floors and above) residential buildings in Sydney.

7. Integrated Whole Energy System De-carbonization Strategy (\$125,000)

Lead City: Boulder

Other Participating Cities: Minneapolis and Seattle

Description: This project will develop a strategy for transitioning to district-scale low-carbon energy systems in 3 communities in Boulder, Seattle and Minneapolis.

8. Carbon Neutral Buildings: Accelerating Market Transformation to High Performing Building Envelopes in North American Cities (\$90,000)

Lead City: Vancouver

Other Participating Cities: New York City and Seattle

Description: This project will accelerate market transformation toward carbon neutral new buildings in North America by applying “Passive Haus” and other European models for significantly enhancing building envelope performance.

These projects are described in more detail at carbonneutralcities.org.