RESOLUTION OF THE CITY OF CHARLOTTE CITY COUNCIL IN SUPPORT OF A SUSTAINBABLE AND RESILIENT CHARLOTTE BY THE YEAR 2050

WHEREAS, the Charlotte City Council committed in the FY 2018-2019 Environment Focus Area Plan to "become a global leader in environmental sustainability, balancing economic growth with preserving our natural resources;" and,

WHEREAS, Charlotte will strive to become a low carbon city by 2050, spanning all sectors, to bring city-wide greenhouse gas emissions to below 2 tons CO_2e per person annually; and,

WHEREAS, Charlotte is currently developing a Strategic Energy Action Plan (SEAP), which will contain short, medium and long terms actions to deliver deep reductions in carbon emissions spanning allsectors so that the CO_2e targets can be met; and,

WHEREAS, a low carbon city is delivered through processes, strategies, practices, tools, and institutional structures that promote collaboration between city, public, private, academic, and nonprofit constituencies to develop and implement long-term, deep reductions in carbon emissions, and,

WHEREAS, these processes, strategies, and collaborations will balance economic considerations with advancement towards the 2050 goal, and

WHEREAS, low carbon cities improve their environmental sustainability, social capital and economic mobility through growth in clean energy industries and workforce development opportunities; and,

NOW, THEREFORE, BE IT RESOLVED that the City of Charlotte will strive to become a low carbon city by 2050 and will develop a Strategic Energy Action Plan to be presented to City Council.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City of Charlotte will continue the work currently under way to advance short term goals for reductions in energy consumption in city operations as a first step on the path towards a low carbon future.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City of Charlotte will strive to source 100% of is energy use in its buildings and fleet from zero carbon sources, including renewables and nuclear, by 2030.

Adopted on this __h day of ___, 2018.

Low Carbon Future Resolution

Environment Committee

June 4, 2018

Agenda

- History/Requirements/Context
- Terminology
- Low Carbon Future
- April resolution
- Proposed Edits
- Action

2

Resolution History

- In November 2017, staff presented City Council with a resolution that would, among other items, commit the City to 100% renewable energy by 2050.

- City Council voted to send the resolution to the Environment Committee for further discussion.

- Charge to Environment Committee includes:
  - Draft a resolution appropriate and tailored for Charlotte
  - Develop an action plan for how goal(s) would be achieved

- April 30th Committee meeting –draft resolution presented

3

Requirements

- Striving to meet requirements of Global Covenants of Mayors:
  - i) Register Charlotte's commitment
  - ii) Complete greenhouse gas emissions inventory and report to CDP
  - iii) Create targets and establish a system of measurement
  - iv) Establish a Sustainable Energy Action Plan
- Objective – Align with Paris Climate Agreement goal

4

Context

- Charlotte wants to be global leader
  - first time Charlotte has ever done:
    - A Sustainable Energy Action Plan
    - Circular Economy Strategy
- As with all cities, this will require new approaches to challenges:
  - innovation, creativity, partnerships, persistence & commitment
- Long time frame (with intermediary requirements)
- Not just focused on energy
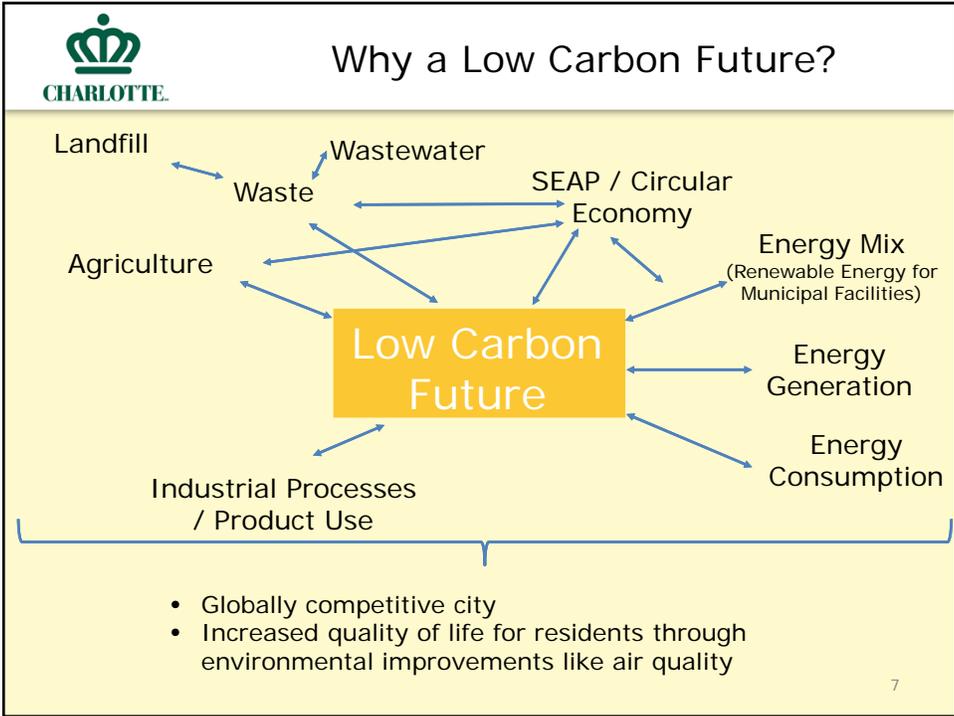- Charlotte faces unique challenges

5

Terminology

Energy Term	Definition	Notes
Renewable Energy	Wind, Solar (PV/CST), Hydro/Wave, Geo-Thermal, Bio-Energy. (plus storage)	100% is usually associated with high capacity requirements if based upon intermittent renewables (alongside storage) to meet peak demand. Costs in strategies often ignore demand and focus on consumption. The Resolution wants to be mindful of both in the time horizons.
Clean Energy	Usually Renewables + Nuclear, *but can be* Renewables only *With some* Including Natural Gas and 'clean coal'	-want to avoid confusion on terms.
Zero Carbon Energy / Fossil Free Energy	Renewables + Nuclear (if necessary)	-It refers to no GHG emissions other than those released when combusting/distributing/producing bioenergy. It does not mean nuclear will be in mix, but it does keep the door open.
Low Carbon	Spans all GHGs across all sectors: energy; waste; industrial processes; agriculture	-Does not mean that zero carbon dioxide is ruled out in any or all sectors. It recognizes that all emissions must be included.

6

Why a Low Carbon Future?

CHARLOTTE.

Landfill

Wastewater

Waste

SEAP / Circular Economy

Agriculture

Energy Mix
(Renewable Energy for Municipal Facilities)

Low Carbon Future

Energy Generation

Energy Consumption

Industrial Processes / Product Use

- Globally competitive city
- Increased quality of life for residents through environmental improvements like air quality

7

Goals of a Resolution

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- Demonstrate Council's commitment:
  - Low Carbon Future
    - Set End Goals
    - Through SEAP & Circular Economy
  - High Level – Not Specific Details
  - Call to action to our partners and community

8

April Draft Resolution Summary

CHARLOTTE

- Encompasses City's commitment to the Global Covenant of Mayors

- Broadens to a Low Carbon Future umbrella
  - 100% Clean Energy falls under this broader approach

- Specifies that the SEAP will be completed to provide an action plan

- Calls for continued work to reduce energy consumption in city operations in the short-term

9

Feedback on April Resolution-Generally

CHARLOTTE

- Oversight in April Resolution over CO_2e
  - This addresses several points highlighted
    - Technical aspects (emissions included)
    - Which sectors are included
- Ownership of goals
  - Municipal vs. City proper
- Terminology (clean / renewable)
- Questions around magnitude and timing of transformation

10

First proposed edit to April Resolution

"WHEREAS, Charlotte will strive to become a low carbon city by 2050, spanning all sectors, to bring city-wide greenhouse gas emissions to below 2 tons CO_2e per person annually;"

11

Proposed edits

1) New reference to "all sectors" - this includes energy, waste, product use and agriculture.

2) Use of CO_2e (equivalent) in the 2050 target.

12

First Proposed Edit

CHARLOTTE

The 2050 target goal of <2 tons CO_2**e** includes all greenhouse gases *(including methane)* across all sectors, which means it addresses emissions reductions across all sectors (energy, waste, agriculture, product use).

13

CO_2e (equivalent)

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- Standard unit for measuring GHG emissions inventories –
  - expresses impact of each different greenhouse gas in terms of the amount of CO_2 that would create the same amount of impact.
- 1 kg of methane is equivalent to 25 kg of CO_2 over 100 years.

14

Second Proposed Edit – New Clause

"Now, Therefore, Be It Resolved that, the City will strive to source 100% of its energy use in its buildings and fleet from zero carbon sources, including renewables and nuclear, by 2030."

OR

"Now, Therefore, Be It Resolved that, the City will strive to source 100% of its energy use in its buildings and light duty vehicle fleet from zero carbon sources, including renewables and nuclear, by 2030."
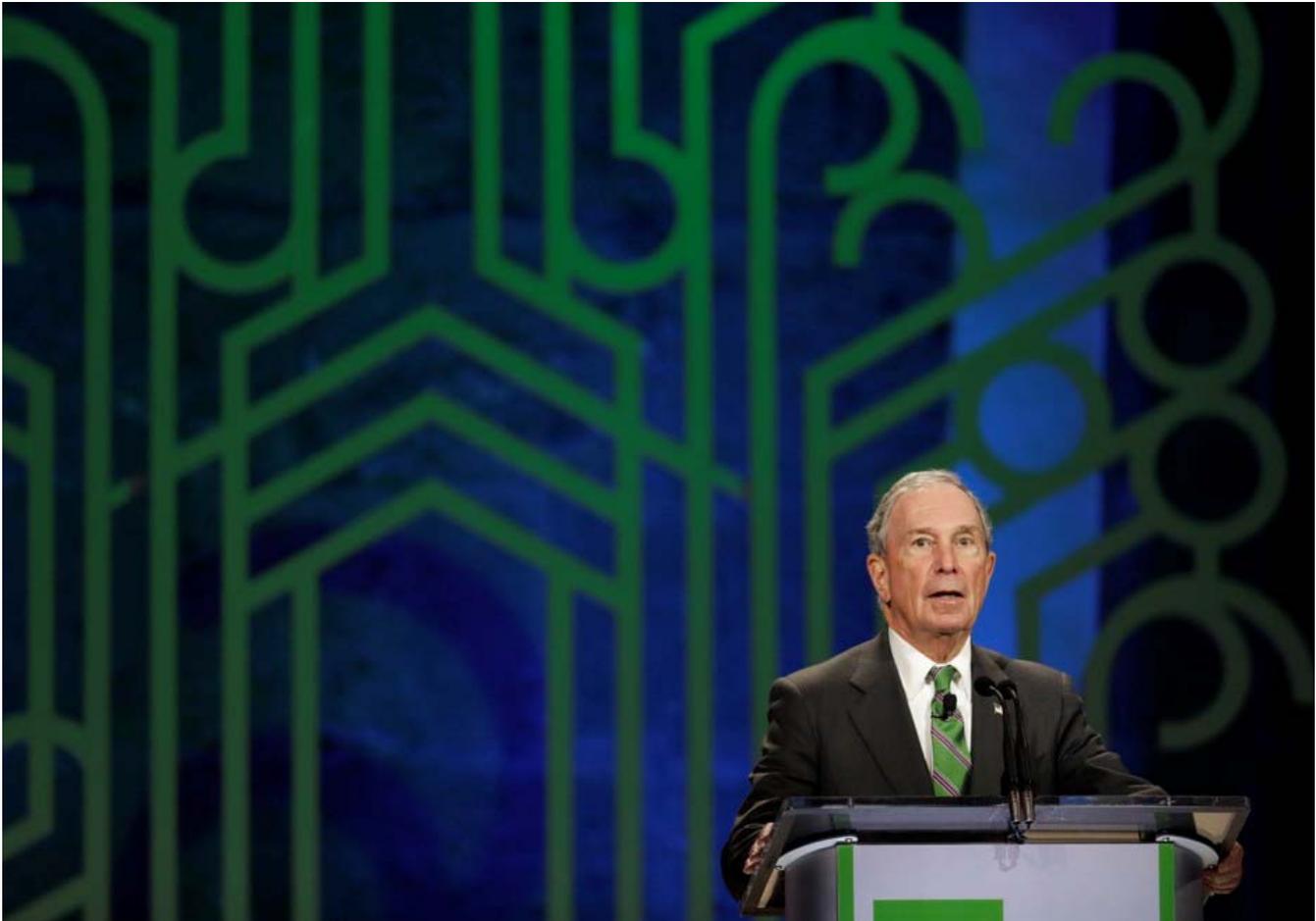
15

Requested Action

Environment Committee votes to approve low carbon resolution and send to full City Council for consideration and adoption in June.

16

CITYLAB

www.citylab.com

Michael Bloomberg awards cities for creating innovative projects to tackle climate change in 2016. This year, the stakes are higher. // Rebecca Blackwell/AP

One Year After Trump Left the Paris Agreement, Who's Still In?

SARAH HOLDER   JUN 1, 2018

City and state coalitions just announced they'll be setting their own climate goals.

When Trump pulled out of the Paris climate agreement last June, cities and states promised they'd fill the environmental vacuum. If the U.S. would no longer deliver on its commitment to lower carbon emissions 26 percent from 2005 levels by 2025, as the international agreement had stipulated, local leaders would. "We're going to do everything America would have done if it had stayed committed," said former mayor of New York Michael Bloomberg at the time.

A full year has passed since that commitment was broken and another was made. And while states and cities have taken climate action on the ground—banning hydrofluorocarbon pollutants (California); divesting pension funds from fossil fuel companies (New York State and several cities), and levying harsher-than-ever emissions regulations (California again)—it's been difficult to measure their collective progress toward fulfilling the accord, which traditionally does not accept members other than countries in its ranks. So to mark the June 1 anniversary, states and cities have set themselves a new raft of green goals.

Starting today, Bloomberg Philanthropies, the ex-mayor's charitable foundation, is holding an American Cities Climate Challenge. In October, the foundation will give away $70 million divided up among 20 "Leadership Cities"—those that propose the most compelling projects to reduce emissions in the building and transportation sectors, or that are already climate leaders in their states. Any of the 100 largest cities in the U.S. that have publicly pledged to uphold the Paris agreement are eligible to compete. More than half of those large cities have already signed the joint document _We Are Still In,_ but the remaining cities have until June 19 to add their names. Cities' applications are due on July 18, and the program will span two years.

"We hear from mayors all the time that they want to do more, that they want to push farther on buildings, push farther on transportation," said Jim Anderson, head of the government innovation program at Bloomberg Philanthropies. "But we also recognize that they need some help."

The U.S. Alliance on Climate Change also announced eight new initiatives this week, focused on sustainable infrastructure, renewable energy, carbon storage, and clean transportation. Created by New York Governor Andrew Cuomo, California Governor Jerry Brown, and Washington State Governor Jay Inslee in the days after Trump's Rose Garden announcement, the Alliance has grown to include governors from 16 states and Puerto Rico. Together, this group represents 40 percent of the U.S. population and has a collective economy worth $9 trillion.

These tandem announcements themselves represent little more than a commitment to future action, and, in the case of some of the Alliance's initiatives, a commitment to start a committee to *then* plan for future action. Next steps for both groups will be announced at the Global Climate Action Summit in September. But the announcements are a signal to the rest of the world that although nationally, the U.S. has broken from global consensus, citizens on the ground are dedicated to lowering emissions.

The moves are far from purely symbolic, insisted Antha Williams, head of environmental programs at Bloomberg Philanthropies. She expects the challenge to foster a range of local-level projects—from "no-brainers," like buying more renewable energy or removing permitting barriers for solar on municipal buildings, to transformative policies, such requiring building energy efficiency retrofits or adding parking charges to encourage public transportation use.

Focusing on the building and transportation sectors is a shortcut to progress, she said, because together they're responsible for almost 90 percent of the emissions from U.S. cities. "The great news is that mayors have a ton of authority over those two sectors," Williams said. "So by working in cities and [in] the biggest, most polluting cities on carbon and transport, we can get pretty far, pretty fast."

The Alliance's efforts, meanwhile, are targeted at the state level. They include a solar soft-costs initiative to drive down permitting, installation, and other non-hardware costs of solar, and offset some federal tariffs. With the help of NY Green Bank, the group is looking into opening new green banks, which work with private-sector investors to fund sustainable infrastructure projects. Following California's lead in phasing out hydrofluorocarbons, it's launching a super-pollutant challenge to reduce short-lived climate pollutants. And it's rolling out an initiative to get more electric vehicles on the roads, while pushing back against any federal weakening of a clean car standard.

Setting these goals as a team allows for valuable information-sharing, said Julie Cerqueira, the executive director of the U.S. Climate Alliance. California is holding webinars on how to inventory and set policy around HFCs; New York and Massachusetts have spent $1.5 million on a climate-change clearinghouse filled with state-specific climate data tools, a database model that could be duplicated elsewhere. Broad buy-in is also necessary to compel market-level innovation and lower costs, especially for states that have fewer resources. To deploy more EVs, faster, "whether or not through some kind of coordinated procurement across the states, they can also help to move the market, thereby reducing the cost of those vehicles to make it more affordable to a larger number of states," said Cerqueira.

These initiatives are meant to fill federal gaps, but not all of them can be filled by localities, Cerqueira says. "There's a ton that states and cities can do, and we're seeing this incredible groundswell," she said. "But … at the end of the day, it's not an excuse for the federal government to continue to cede the leadership on climate change."

Bloomberg's team was more sanguine. Between the city-level initiatives and Beyond Coal, a campaign with the Sierra Club to close down coal-fired power plants, Williams says they could tackle up to 65 percent of the reductions by 2025. "The experts tell us we can get there, and we don't need to wait for action from Washington."

Still, even when you add them together, these coalitions don't make a quorum. The Alliance has representation from less than half of the states in the U.S., and of the three Republican governors who've joined, all of them represent blue states: Vermont, Maryland, and Massachusetts. While the big cities that have signed onto the Paris accord and are therefore eligible for Bloomberg's challenge are more diverse, many are Democrat-led.

Recommended

Climate Change Will Not Make Us Nicer
AMANDA KOLSON HURLEY
MAR 19, 2018

3 Questions for Cities One Year After the Paris Agreement
GREG SCRUGGS
DEC 14, 2016

The Cities at Risk of Climate-Driven Conflict
THOR BENSON
MAR 21, 2018

Research indicates, however, that despite a small conservative showing in these sorts of public coalition groups, support for climate resilience policy is more bipartisan than it seems. According to an analysis by the Boston University Initiative on Cities, while Republican mayors "shy away from climate network memberships and their associated framing of the problem," they do "advocate locally for policies that help advance climate goals for other reasons, such as fiscal responsibility and public health." Open climate leadership by some states and cities could encourage quiet, policy-driven support from others.

The real test will come in September, when city and state leaders across the country gather in California for the global climate summit. There, they will announce the level of U.S. emissions recorded in the past year—and how much lower it's really gotten—and leaders of the initiatives spearheaded by the Alliance will outline more specific action plans. In October, Bloomberg Philanthropies will announce its 20 winning cities and they'll embark on the two-year program.

"When we look around the world right now and we think about the real climate standouts, you might think of Oslo or Stockholm," said Williams. "But we think there's an opportunity to be thinking of cities like Pittsburgh or San Diego among those ranks."

About the Author

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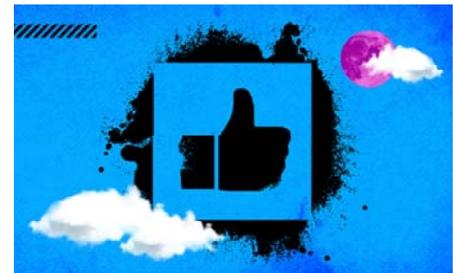
Sarah Holder is an editorial fellow at CityLab.

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