

I greatly appreciate your invitation and the opportunity to provide testimony to the committee to highlight challenges associated with addressing climate change, and the actions we're taking to make the City of Charlotte a resilient city and model for environmental sustainability.

Charlotte's population has more than doubled to almost 900,000 residents and is now the 16th largest city in the United States. Every day, we welcome more than 100 new residents and this city is expected to add almost 400,000 people over the next 20 years. Our Charlotte region is home to more than 2.5 million people and is one of the top five fastest growing large cities.

Charlotte is an international gateway, home to nearly 1,000 foreign-owned firms. We have added more than 14,800 jobs in the last year, and another 12,700 this year. Charlotte has become a hub for entrepreneurs and the booming tech industry, and we are also the 2nd largest banking city in the U.S. Here are a few of the objective ratings:

Charlotte is ...

- #2 metro in the U.S. for economic growth potential (Business Facilities, 2017)
- #1 TechTown in the U.S. (CompTIA 2018)
- #1 fastest growing tech-talent market in country (CBRE, 2018 & 2019)
- #1 city in America for female-owned business growth (American Express 2018)
- #3 city in America for STEM job growth (Forbes)
- 6th best large city to start a business in the U.S. (Wallethub 2019)
- "Top Ten Rising Cities for Start-ups" (2018 Forbes / Revolution)

Charlotte is also the #1 city where millennials are moving. Additionally, SmartAsset projected Charlotte to have the highest rate of millennial growth in the nation. Yelp rated Charlotte #1 - Up & Coming City in 2018. All this momentum, in conjunction with the 27 nationally ranked universities within 200 miles of Charlotte, helps us generate a pipeline of future talent.

One reason people are moving here is our geographic location. That prime location puts our city at a significant risk for a catastrophic event and our explosive growth puts an even larger number of people at risk. Our state and region is directly feeling the consequences of extreme weather patterns. Hurricane Dorian was the latest example of a major weather event to batter the state, making landfall just a week shy of Hurricane Florence's one-year anniversary. Our increasing population density will further strain infrastructure already threatened by higher temperatures and increased precipitation intensity and frequency.

This growth will also lead to increases in respiratory and heat-related illnesses associated with emissions from power plants and vehicles and increasing temperatures. These changes put our critical regional resources increasingly at risk. Ultimately this will have dramatic effects on the vibrancy and viability of our metropolitan area that so many are proud to call home.

We have two choices:

- 1) Embrace the reality that long-term plans are needed to change the way we consume energy; or
- 2) Keep doing what we are doing and pass this issue on to the next generation where it will be too late to do anything.

The choice we made has changed the course of Charlotte history.

As a signatory to the Global Covenant of Mayors (2015), Charlotte has joined thousands of cities and regions in a commitment to accelerate ambitious, measurable climate and energy initiatives that lead to an inclusive, equitable, low-emission and climate resilient future.

Our Charlotte City Council voted unanimously in support of the *Sustainable and Resilient Charlotte by 2050 resolution*, in June 2018. This directive provides a vision towards a low-carbon path, and city leadership are committed to achieving our community's aspirations. The resolution states that Charlotte will strive to source 100% of City's energy use in its buildings and fleet from zero carbon sources, become a low carbon city by 2050, spanning all sectors, and bring citywide greenhouse gas emissions to below two tons CO₂e per person annually.

City Council also unanimously adopted the City's first *Strategic Energy Action Plan (SEAP)* in December of 2018, which sets a framework to guide Charlotte's transition to a low-carbon future. At the same time, Bloomberg Philanthropies named Charlotte a winner in Bloomberg American Cities Challenge. As one of twenty-five cities selected, Bloomberg Philanthropies provides funding and resources to work with Charlotte to accelerate and deepen climate solutions where we will have the most impact and showcase the benefits – good jobs, cleaner air, and cost savings.

Charlotte has also launched a bold and innovative vision, Circular Charlotte, to become a zero-waste city by transforming \$111 million worth of annual waste and reclaiming it to boost our economy and create jobs. This program would benefit Charlotte by reducing impact to our landfill and removing CO₂ emissions equivalent to 75,000 vehicles each year.

Our plan for environmental sustainability provides solutions for reducing our carbon emissions that will also make Charlotte a more attractive place to live and work and be globally competitive. Achieving a low-carbon future for Charlotte will require a transformational change in the way we consume and generate energy and how we manage our waste stream. We know that this will be challenging and require new and innovative ideas, research, projects and collaborations. It will require government agencies, companies and organizations to look at their role, as well as residents to look at how they are using energy each day. For example:

- We commented on and affirmed North Carolina Governor Roy Cooper's Executive Order 80 which contains firm, but necessary goals that will need to be met to combat climate change, including reducing statewide GHG emissions.
- We support our utility, Duke Energy, who recently set a 2050 net zero carbon goal.

As a city we are also doing our part to take **immediate action** by:

- Completing energy audits of over a million square feet, starting with of our cultural facilities, so we can best determine retrofits that will reduce energy consumption.
- Embedding sustainability and resilience into our Comprehensive Plan, CharlotteFuture2040, which will guide land use ordinance updates for years to come.
- Launching a green workforce development program where we will begin to train individuals in building efficiency, solar energy, and other emerging technologies. This year, we have a goal to enroll 100 students in related workforce areas.
- Investing in expanding our public transportation network and in electric and hybrid-electric vehicles in our city fleet. Our airport has just invested in five e-buses.
- We are particularly proud of applying and getting accepted into the Duke Energy Green Source Advantage program, a renewable energy program for large North Carolina customers who want to support development of renewable resources. If our Council votes to move forward with the agreement, this will make us a leader among local governments in NC in renewable energy and will equate to removing 12,000 passenger vehicles from the road annually. It will also get us a quarter of the way to our Strategic Energy Action Plan goal.

Ultimately, as we continue to seek opportunities to address climate change, we understand the enormity of the challenge before us and understand that research and development in this area is critical.

Together we can meet this challenge, not only with ambitious goals, like those the City of Charlotte set last year, but with additional investment in energy innovation and the development of new cost-effective technologies.

As a local government with responsibility to our residents, we face real challenges in balancing our goals with the resources and technology to meet them. We know 61% of our greenhouse gas emissions come from transportation and buildings, so if you want to help cities like Charlotte, here are some things that we need:

- Funding and research for renewable energy, and for retrofits for our existing facilities.
- Funding for electric buses, and infrastructure, to make electric buses a real choice.
- Support for our mass transit and light rail system.
- More research providing guidance and direction on the most cost-effective means to accelerate environmental sustainability.

Thank you for giving me the time to share the excitement I have for Charlotte as well as the challenges and actions we are taking to make our community a resilient city.