SEAP

STRATEGIC ENERGY ACTION PLAN

CITY of CHARLOTTE

DECEMBER 2020

SEAP: YEAR TWO

Prepared by the City of Charlotte's Office of Sustainability and Resilience

INTRODUCTION

Charlotte is a leader in sustainability and resilience. In December of 2018, Charlotte City Council unanimously adopted the Strategic Energy Action Plan. That same week, Charlotte was named one of the winners of the American Cities Climate Challenge, an award to help strengthen and accelerate the City's goals. With these foundational elements, Charlotte has taken bold strides forward. While 2020 brought incredible challenges and insights to our community with the COVID-19 pandemic and the calls for racial justice, this critical backdrop only highlighted and reinforced the importance and intersectionality of this work, and reinforced the goal to take equitable actions to move towards a healthier, low carbon city for all of our residents. Highlights of those actions are outlined in this report.

TABLE OF CONTENTS

MISSION, VISION, & VALUES

THE OFFICE OF SUSTAINABILITY AND RESILIENCE, A DIVISION OF GENERAL SERVICES

OUR MISSION

Charlotte is America's Queen City, opening her arms to a diverse and inclusive community of residents, businesses, and visitors alike; a safe family-oriented city where people work together to help everyone thrive. Embedded in this vision is creating a livable city, with comprehensive and convenient transportation options and distinct, and diverse neighborhoods for all. The City of Charlotte works to advance strategies that create a connected City that embodies our environmental and sustainability goals.

In June 2018, the Sustainable and Resilient Charlotte by 2050 Resolution was unanimously passed by City Council. This resolution set aggressive and aspirational municipal and community-wide greenhouse gas emissions reduction goals for the City of Charlotte. Specifically, it strives to have City fleet and facilities fueled by 100% zero-carbon sources by 2030. It also sets a community-wide goal for Charlotte to become a low carbon city by 2050 by reducing greenhouse gas emissions to below 2 tons of CO2 equivalent per person annually. Lastly, it called for a Strategic Energy Action Plan to determine how Charlotte can reach its goals.

In December of 2018, City Council unanimously adopted the Strategic Energy Action Plan. Sustainability staff developed the SEAP in partnership with community stakeholders and City departments participating in greenhouse gas emission reduction scenario sessions and continuous engagement on the specific areas of the SEAP. This resulted in a comprehensive framework of Action Areas containing both internal and external actions, focused on transportation, buildings, energy generation, and workforce development & equity with steps on how to reach the goals set by the resolution.

The SEAP is an ambitious, aggressive action plan that is dependent on a municipal and community-wide approach and commitment to sustainability and resilience. It also is influenced by many factors, including technological advancements, operational compatibility and risk management, and the availability of appropriate resources and funding.

BRIEF HISTORY

THE STRATEGIC ENERGY ACTION PLAN

In 2020, the above visual was created to imagine a low-carbon Charlotte. This encompasses what Charlotte will become in 2050, when we reach our emissions reduction commitment. It highlights community and residential solar, public electric vehicle charging, zero carbon forms of transportation, and community partnerships.

BLOOMBERG PHILANTHROPIES AMERICAN CITIES CLIMATE CHALLENGE

CHALLENGE UPDATE

In 2018, the City of Charlotte became one of twenty-five cities participating in the Bloomberg Philanthropies American Cities Climate Challenge. The initiative aims to accelerate and deepen U.S. cities' efforts to create the greatest climate impact and showcase the benefits – like good jobs, cleaner air, and cost savings – that climate solutions bring.

Climate Advisors working with the City of Charlotte and on behalf of the Climate Challenge will continue to support projects to reach SEAP goals. The City of Charlotte is excited to continue working to accelerate this critical work with key partners and technical resources.

American Cities Climate Challenge

Bloomberg Philanthropies

Urban Land Institute

World Resources Institute

Electrification Coalition

nbi new buildings institute

Delivery Associates

NRDC

greenlink

Rocky Mountain Institute

NACTO

FORTH

TRANSPORTATION

IN AN EFFORT TO STRIVE TOWARD A 100% ZERO CARBON CITY FLEET BY 2030, THE CITY OF CHARLOTTE...

- Purchased and installed 4 mobile, solar-powered, public electric vehicles (EVs) charging stations through grant funding in the Corridors of Opportunity geography.
- Launched 5 electric buses for circular routes at the Charlotte Douglas Airport.
- Won a Federal Transit Administration Low or No Emissions grant of $3.7M with a 50% CATS match for six electric buses and infrastructure; entered into negotiations with Duke Energy for larger electric bus transition.
- Signed Sustainable Fleet Policies into effect directing departments to purchase lowest-emitting vehicle depending on usage, and technology.
- Updated Motor Pool Policy to encourage greater EV utilization for city-related travel.
- Replaced 7 gas vehicles with EVs for the employee motor pool; added an additional 20 EVs in various departments.
- Introduced an EV adoption and awareness campaign with a webinar series and dealership engagement in partnership locally with Centralina Clean Fuels Coalition.
- Installed 730+ Automatic Vehicle Locators (AVLs) in City fleet vehicles to inform low carbon decisions, bringing the total number of AVL installs to over 1,200.
- Invested $1 million in EV infrastructure for City-owned facilities, which will result in 25+ chargers, bringing us close to 100 city-owned electric vehicle charging stations.

BUILDINGS

IN AN EFFORT TO STRIVE TOWARD 100% ZERO CARBON MUNICIPAL BUILDINGS BY 2030, THE CITY OF CHARLOTTE...

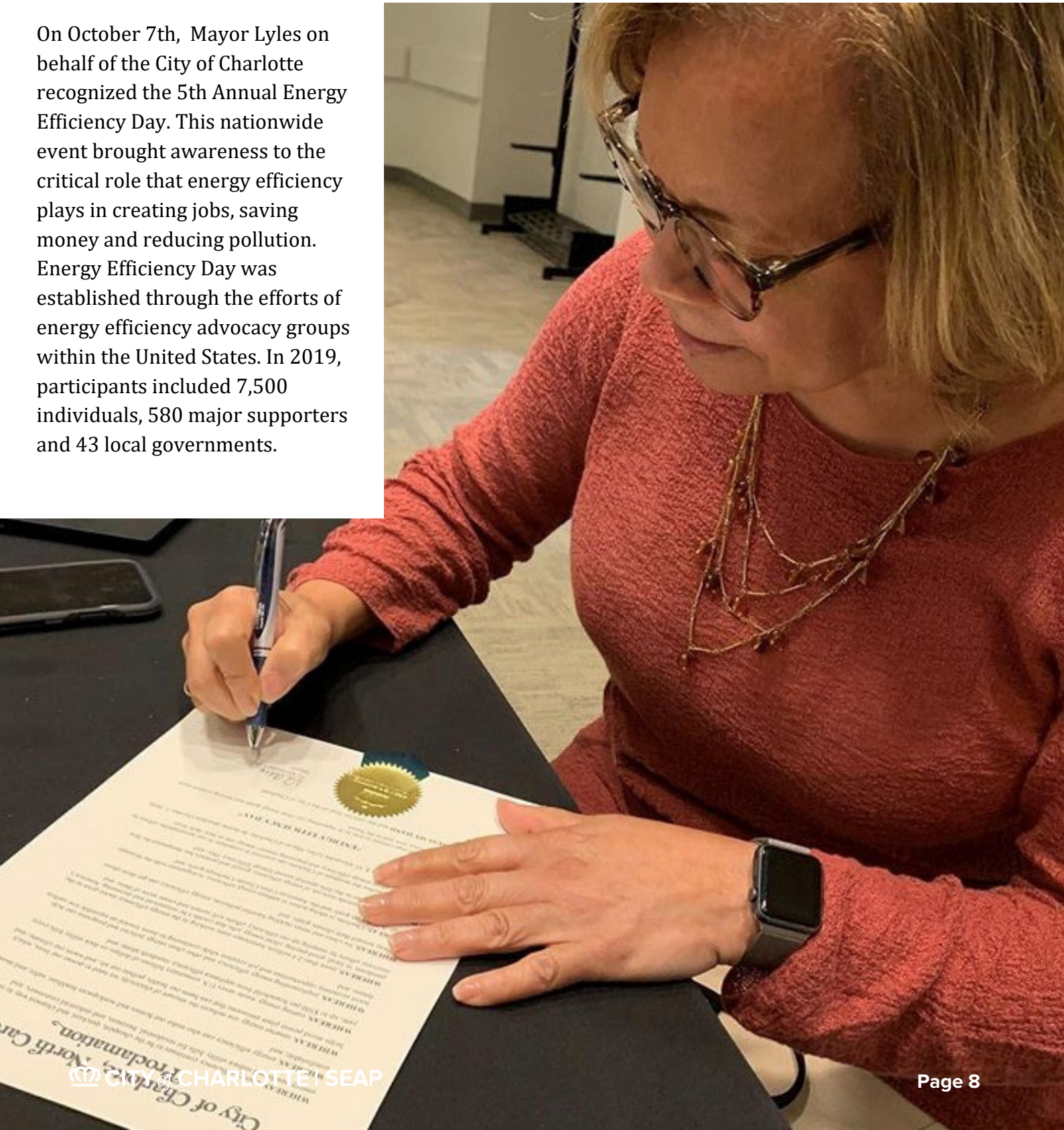
- Developed the revised Sustainable Facilities Policy to align with the Sustainable and Resilient Charlotte by 2050 Resolution and the SEAP. These revisions:
  - Increase emphasis on energy efficiency and renewable energy in building design for new construction and major renovation.
  - Require on-site renewable energy (solar) in new buildings and roof replacement projects unless determined to be uniquely cost-prohibitive.
  - Prepare for the transition to electric vehicles by requiring new construction to have the capability to install electric vehicle charging, which supports our fleet and the market transformation to electric vehicles.
  - Focus on public energy reporting and data driven decision making.
  - Incorporate smart energy management solutions for energy-consuming devices.
  - Develop a process to integrate energy performance data into existing capital planning processes for best use of city funds for maximum energy savings.
- Completed construction of a Net Zero Energy-Ready Fire Station.
- Completed 4 Police division stations designed to earn LEED certification; 1 with solar photovoltaics and 3 "solar-ready"; 3 have geothermal HVAC systems.
- Completed 6 LED lighting retrofit projects at 6 city-owned facilities, which is projected to save the City over $53,000 in energy costs annually.

BUILDINGS

IN AN EFFORT TO STRIVE TOWARD 100% ZERO CARBON MUNICIPAL BUILDINGS BY 2030, THE CITY OF CHARLOTTE...

ENERGY EFFICIENCY DAY

On October 7th, Mayor Lyles on behalf of the City of Charlotte recognized the 5th Annual Energy Efficiency Day. This nationwide event brought awareness to the critical role that energy efficiency plays in creating jobs, saving money and reducing pollution. Energy Efficiency Day was established through the efforts of energy efficiency advocacy groups within the United States. In 2019, participants included 7,500 individuals, 580 major supporters and 43 local governments.



ENERGY GENERATION

IN AN EFFORT TO STRIVE TOWARD 100% ZERO CARBON ENERGY FOR ALL MUNICIPAL BUILDINGS AND FLEET BY 2030, THE CITY OF CHARLOTTE...

FY21 budget allotted $2 million for rooftop solar on City-owned buildings. As of December 2020, the City has completed the design of more than 1-megawatt of solar photovoltaic systems on City buildings. Once constructed, these solar panel installations at city facilities are expected to generate over 1,000 MWH of zero-carbon electricity yearly, which will yield air quality benefits, create workforce development opportunities, and generate projected energy savings of over $2.0 million over the 25-year life of the systems. In addition, on-site solar is a great visual tool for our workforce and public to see renewable energy right here in our community.

Getting 25% of the way to the 2030 SEAP Goal

The Charlotte City Council voted in February 2020, to participate in the Duke Energy Green Source Advantage (GSA) Program, which will enable the City of Charlotte to move forward with a 35-megawatt, utility-scale solar energy project – and makes Charlotte the nation's most populous city to acquire new renewable energy through a utility green tariff. The City will partner with Carolina Solar Energy, a North Carolina-based, solar energy company, and Ecoplexus, an international solar energy company with offices in Durham, NC, to build the solar farm, which is expected to be fully operational by 2022. For full details of this program, please see the GSA page at: charlottenc.gov/seap.

EQUITABLE WORKFORCE DEVELOPMENT

IN AN EFFORT TO DEVELOP AN EQUITABLE GREEN WORKFORCE PIPELINE IN SUPPORT OF A CLEAN ENERGY TRANSITION, THE CITY OF CHARLOTTE...

- In 2020, RENEW (Renewable Energy and Efficiency Workforce Training Program) provided paid training in the areas of HVAC and Electrical Trades for 40 Charlotte residents displaced from employment by COVID-19. This 13-week course has taught basic skills for the industry and provided hands-on experience with the sustainable technologies in this field.
- Participants were paid a stipend of $15/hour during the training period. Additionally, participants received career counseling in preparation for a paid work-based learning opportunity, or full-time employment within this industry.
- The City secured funding to train 80 participants through 2021 in partnership with Urban League of the Central Carolinas and Goodwill Industries of the Southern Piedmont.
- A Corporate Advisory Council, made up of local employers, met throughout the year and provided private sector partnership to the program through mentoring and job opportunities. Trane Technologies and MSS Solutions are the lead corporate partners.

2021 LEGISLATIVE AGENDA

On December 14, 2020 Council adopted its legislative agenda. Several items play a significant role in supporting the reduction of greenhouse gas emissions.

STATE

Mobility: Work with key stakeholders to support legislation that provides dedicated, stable and permanent sources of revenues for State, regional and local public transportation, roadway, bicycle, pedestrian, passenger rail, trail and safety capital improvement projects.

FEDERAL

Transit: Continue working with Congress and the Administration to secure federal resources for the build-out of the 2030 Transit Corridor System Plan.

Modernized and Sustainable Infrastructure: Support increased federal funding for research and infrastructure that accelerates our transformation to a sustainable economy and supports the reduction of greenhouse gas emissions, including: walking and biking infrastructure, electric vehicles and electric vehicle charging stations, alternative fuel vehicle refueling stations, energy efficient buildings, and renewable energy and renewable energy infrastructure. Support equitable workforce development opportunities in the clean energy sector.

FISCAL YEAR 2021 BUDGET

MAKING SUSTAINABLE INVESTMENTS

Fiscal year 2021 runs from June 2020 until July 2021. In this budget cycle, City Council made clear their commitment to a low carbon future for Charlotte through the largest investment ever made in sustainability - over $16 million in these initiatives alone. See infographic to the left for a snapshot of FY2021 investments through city funding, grants, and CARES Act funding.

HIGHLIGHTING CHARLOTTE DOUGLAS AIRPORT

In 2020, the City of Charlotte Aviation Department adopted its Comprehensive Sustainability Plan. The plan will enable Charlotte to become a leader in environmental stewardship by implementing best practices to help minimize the environmental impacts of our operations for the benefit of our local community. Over the next 20 years, the Airport will use this plan as a guide as we adopt new, sustainable practices. The Aviation Department's Comprehensive Sustainability Plan reflects the Airport's commitment to helping the City of Charlotte achieve the objectives outlined in the its Strategic Energy Action Plan, which strives to have the city's fleet and facilities fueled by 100 percent zero-carbon sources by 2030.

Developed in collaboration with staff, stakeholders and community members, the Comprehensive Sustainability Plan is centered around six focus areas, each supported by their environmental, economic and/or social performance targets and goals. Sustainability initiatives consist of the installation of solar panels, energy efficient systems, electric vehicle charging stations, and the use of alternative fuel vehicles and recyclable building materials.

To read the full report and learn more, go to cltairport.com/sustainability.

2020 INITIATIVES INCLUDE:

- Adding five electric buses to transport passengers to and from the terminal. This supports the Airport's plans to replace its 70 diesel-powered buses with 50 electric buses over the next seven to 10 years. The five electric buses will result in an annual decrease of about 50,000 gallons of diesel fuel, saving an estimated $90,000. Due to zero emissions, replacing the Airport's diesel fleet with electric buses will have an annual impact equal to removing 2,900 cars from city streets.

- Implementing chiller plant optimization software and added controls and sensors that monitor the chiller's load and adjusts the system's operation accordingly, based on what is required in order to achieve maximum energy efficiency.

- Achieving Green Globes certification for Concourse A Expansion Phase 2, Central Energy Plant, and the Terminal Lobby Expansion to allow for increased energy efficiency and improved building operations. These projects are currently being designed or are in construction.

CHARLOTTE MOVES
TASK FORCE

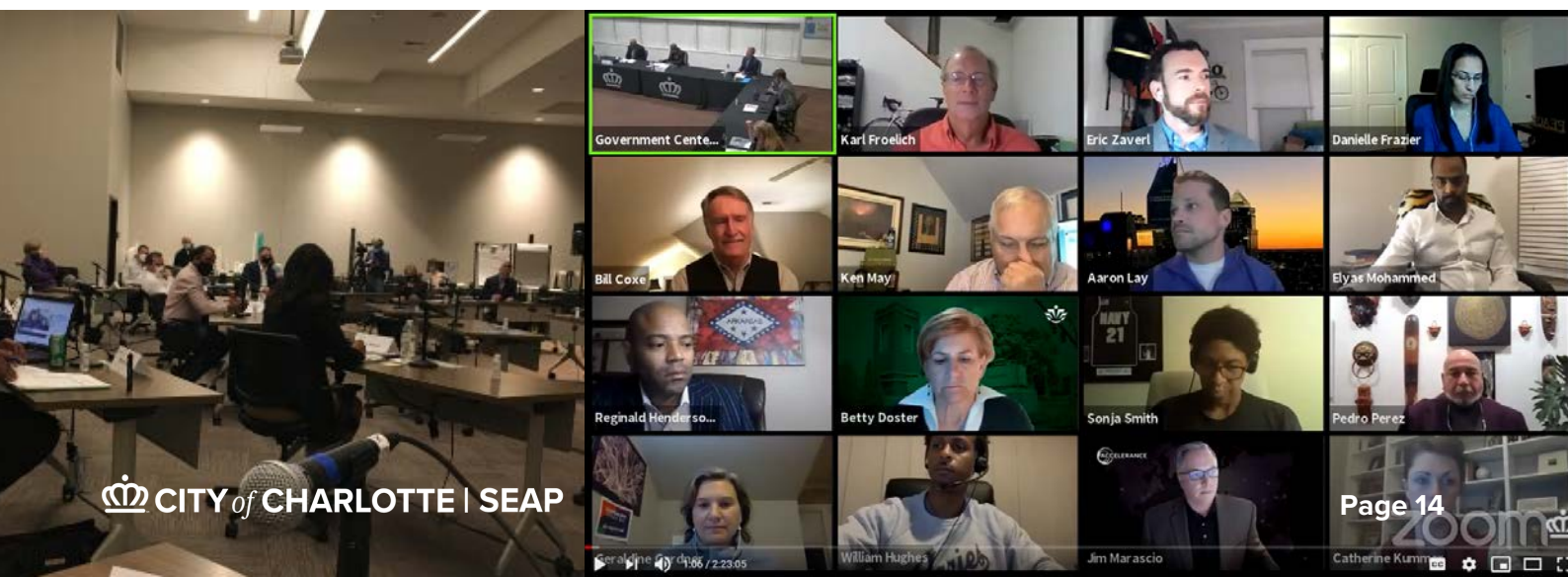
At the direction of Mayor Vi Lyles, the Charlotte MOVES Task Force was formed to address mobility and transportation issues in Charlotte. As stated in the SEAP and our 2015 GHG emissions inventory, Road Transport accounts for 36% of all emissions in Charlotte. One of the Action Areas of the SEAP calls for the Rapid Uptake of Sustainable Modes of Transportation. The recommendations of the Charlotte Moves Task force align with the SEAP's transportation goals, specifically the reduction of single occupancy vehicle use.

Key community representatives were guiding forces in shaping the Strategic Mobility Plan's vision, and realizing that vision by recommending a Transformational Mobility Network - a catalytic network of projects - and a funding strategy to the Charlotte City Council.

Led by former Mayor Harvey Gantt, the task force was comprised of 25 community leaders from across the Charlotte-Mecklenburg area who represented business, government, transportation and planning, education, nonprofits and more.

The taskforce met ten times in 2020 and brought a summary of task force recommendations to City Council at the end of the year, along with a proposed funding strategy.

- Invest in mobility to meet changing needs and endorse a Transformational Mobility Network of of key multi-modal projects and investments from adopted and on-going plans.
- Align mobility investment with related initiative, including the adoption of a mode-share target and the development of a program that protects people against displacement.
- Commit the resources to achieve the vision through a a 50-50 funding approach where local funding sources account for 50% of the total cost, with the remainder funded through State and Federal sources. The primary new sources is increased sales tax, with a secondary source of dedicated property tax if needed.



CHARLOTTE MOVES
STRATEGIC MOBILITY PLAN

THE STRATEGIC MOBILITY PLAN WILL:

1. Support the goals and objectives of the Charlotte Future 2040 Comprehensive Plan.
2. Integrate existing transportation plans and policies into a single Strategic Mobility Plan.
3. Establish new goals for prioritizing transportation investments and measuring progress.
4. Identify a "Transformational Mobility Network."
5. Modernize transportation policies and equip Charlotte to respond to a changing world.

The Charlotte Moves State of Mobility Report includes a section that analyzes how the Charlotte community interacts with the transportation system and mobility, including:

- AFFORADABLE TRAVEL
- ACCESS TO JOBS
- ACCESS TO TRANSIT
- WALKABILITY
- BICYCLING
- GREENWAYS & URBAN TRAILS
- SUSTAINABILITY & RESILIENCY

Shared and Micromobility

Bike share began in Charlotte with the launch of the Charlotte B-cycle system in 2012. Private dockless bike share companies began operating in Charlotte in 2017 and quickly pivoted to e-scooters. Lime, Bird, and Spin are Charlotte's current e-scooter operators. They are part of an ongoing pilot program which has been continuously evaluated and reformulated with a focus on encouraging responsible rider behavior and closing first/last mile gaps for transit riders. Charlotte has innovated in this field through a unique, data-driven approach to dynamic pricing that supports first/last mile connections and discourages overcrowding in Uptown.

Plan Alignment

The Strategic Mobility Plan is in alignment with:

- Charlotte's UDO;
- CATS Envision My Ride;
- Charlotte Future 2040;
- The Comprehensive Plan; and
- The Strategic Energy Action Plan, among others.

How Charlotte Will Move

Achieving a more balanced mode split is critical to achieving complicated—and sometimes competing—mobility goals, such as:

- Managing rapid growth
- Improving multimodal accessibility and safety
- Supporting equity, affordability, and health,
- Respnding to climate change
- Alleviating congestion

Setting an aspirational mode balance target to guide future transportation investment and policies should be considered to achieve citywide mobility goals.

CHARLOTTE WATER

HIGHLIGHTS

Charlotte Water is the largest public water and wastewater utility in the Carolinas, serving more than a million customers in the City of Charlotte and the greater Mecklenburg County. Charlotte Water has been a leader in sustainability, taking on projects that have a measurable impact on the City's goals.

SOLAR ENERGY

Completed design of a photovoltaic solar system at Charlotte Water's Zone 4 location that is projected to produce 914,155 kWh each year starting in 2022.

COMBINED HEAT AND POWER & RENEWABLE ENERGY

Charlotte Water's Combined Heat and Power (CHP) system is designed to run around the clock and generates 1000 kW of renewable energy. This CHP facility at McAlpine was the first CHP system at a wastewater treatment plant in North Carolina. To date, the CHP has generated more than 20 million kWh of renewable energy which reduces carbon emissions equivalent to removing over 3,000 passenger vehicles from the road.

HIGH SPEED TURBO BLOWERS & ENERGY REDUCTION

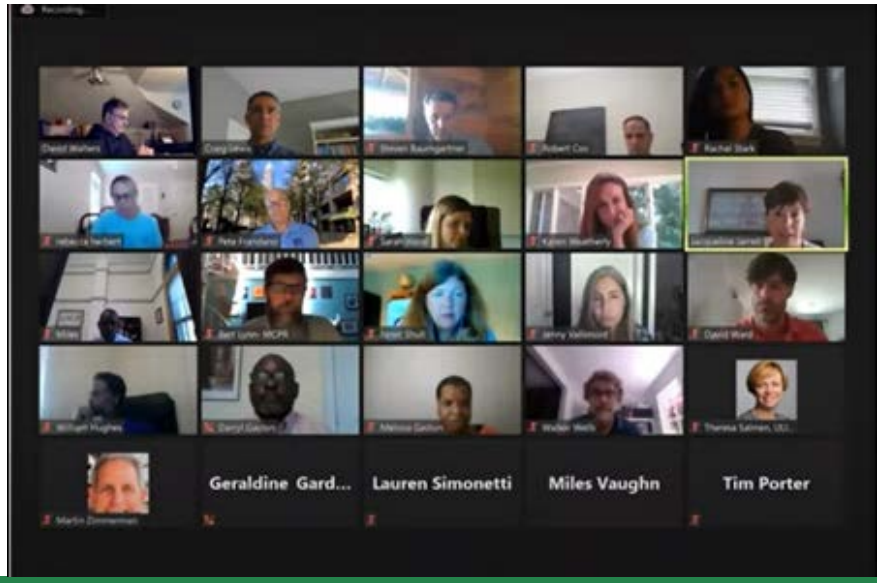
In 2020, the Sugar Creek Wastewater Treatment Plant (WWTP) turned on their new High Speed Turbo Blowers. These blowers provide air for the microbes used to clean water, which is a critical component of wastewater treatment. The turbo blowers are super efficient and have magnetic bearings that levitate the spinning parts and therefore do not require oil.

- Sugar Creek WWTP expected to see close to 30% reduction in energy use, but have realized closer to 40%.
- With upgraded controls, the amount of air needed for the biology to thrive has been dialed in to reduce waste.
- Efficiency and effective aeration have also provided significant chemical savings.
- The Sugar Creek system now delivers the exact amount of air and alkalinity to provide the optimum environment for the biological organisms to thrive.

The SEAP calls for the Office of Sustainability and Resilience to work closely with the Planning Department to incorporate the mission of the SEAP into the Comprehensive Plan and Unified Development Ordinance (UDO).

Some examples of concepts embedded in Charlotte Future 2040 Draft and the subsequent UDO include:

- Electric vehicle infrastructure and charging
- Energy efficient buildings
- Safe and accessible transit, bike lanes, and sidewalks
- Increased use of renewable energy



RESILIENT INNOVATION DISTRICT TECHNICAL ASSISTANCE PANEL

From the SEAP: Action Area 4: Develop and Implement Resilient Innovation Districts
Task 1: Formalize the Concept of a Resilient Innovation District Through Dialogue with all Relevant Stakeholders and in Line with The Comprehensive Plan Process in FY21.

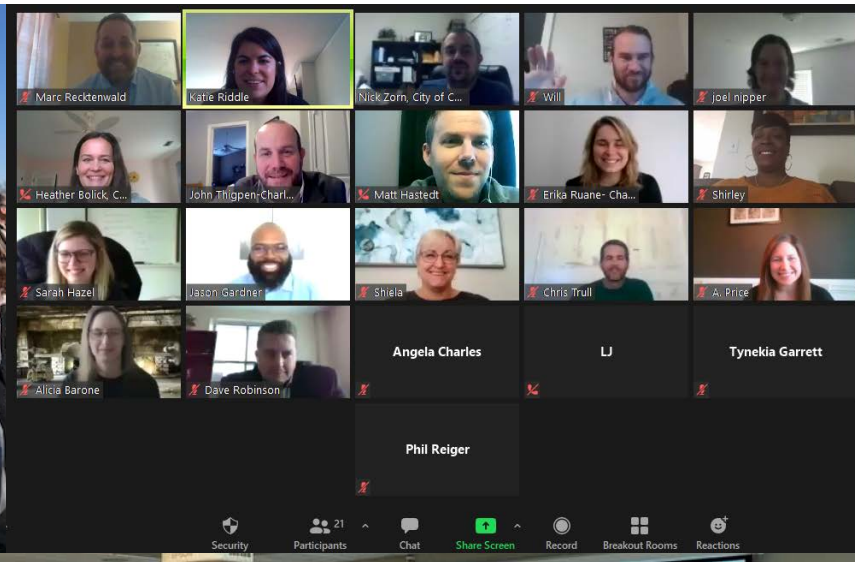
In July of 2020, The City of Charlotte through the Bloomberg Philanthropies American Cities Climate Challenge engaged the Urban Land Institute (ULI) to provide an all-virtual Technical Advisory Panel (TAP). This panel team focused on strategies to best envision the future of Charlotte as an equitable, low carbon, and resilient city, by formalizing the concept of a Resilient Innovation District, as highlighted in the Strategic Energy Action Plan (SEAP), in partnership with the Comprehensive Plan and Unified Development Ordinance. ULI provided the City of Charlotte with a full report of findings from the TAP. For more information and to read the report, visit: charlottenc.gov/sustainability/ULI-TAP.

ENGAGEMENT

EMPLOYEE

SEAP OPERATIONS TEAM

The SEAP Operations is comprised of representatives of 19 City Departments who met regularly throughout 2020 to connect on goals and initiatives for a low carbon Charlotte. In the beginning of 2020, the team visited different locations such as Charlotte Water's McAlpine Plant and Charlotte Douglas Airport. Throughout the year, they provided input for items such as the Sustainable Fleet Policies, the Sustainable Facilities Policy, and the Charlotte Mecklenburg Stormwater Services Planning Tool. When COVID-19 required team members to work remotely, the SEAP Operations Team seamlessly transitioned to virtual meetings while maintaining engagement and enthusiasm.



ENGAGEMENT

COMMUNITY

SEAP EXTERNAL CONTENT GROUPS

Understanding that the City cannot accomplish this alone, SEAP External Content Groups were created to catalyze partnership, collaboration, and action towards ambitious sustainability and resiliency goals, specifically our 2050 low carbon City goal. These four groups represent local organizations, companies, and passionate individuals, focused on a low carbon future for Charlotte. Throughout 2019 and 2020, these four groups each met six times.

In early March of 2020, the City organized and helped to facilitate a Design Sprint to generate ideas and initiate plans for projects to advance the SEAP 2050 goal. Below are some ideas that came from this Design Sprint, which group members continued to work on and make a reality. Group members took some of the ideas that came out of the Design Sprint and implemented them throughout the community to engage and educate on the importance of carbon emissions reduction, as well as take action to improve Charlotte's response to climate change.

- Greening our Faith Communities
- Charlotte Mecklenburg Climate Ambassadors Program
- Building Benchmarking
- EV Webinars
- Sustainability Ambassador Program and Climate Change Simulation

ENGAGEMENT

COMMUNITY

COOL GLOBES

Cool Globes: Hot Ideas for a Cooler Planet, is a public art exhibition designed to raise awareness of solutions to climate change. Contact- less, outdoor art exhibit of 35 globes each with a unique climate story. Seven globes highlight Charlotte-specific initiatives that help combat climate change. This exhibition provided residents with a safe activity during COVID, while learning about local artists and climate change. The exhibit opened Thursday, June 25th, 2020, and continues to be on display. Since 2005, the Cool Globes exhibit has traveled around the world. As the exhibition arrived in Charlotte, local artists and students created several brand-new globes. The City partnered with Discovery Place to make Cool Globes a reality.

ENGAGEMENT

COMMUNITY

ARRIVAL MEMORANDUM OF UNDERSTANDING

In December of 2020, The City of Charlotte announced global electric vehicle company Arrival would locate its North American headquarters in the City of Charlotte.

Arrival's mission aligns with the City of Charlotte's goal to improve sustainability and reduce greenhouse emissions. Arrival believes its transformative approach can provide cities with the solutions they need to create sustainable urban environments and exceptional experiences for their residents

Arrival also signed of a Memorandum of Understanding (MOU) with the City of Charlotte, which sets out the company's intention to work with the City on achieving the goals set out in its Strategic Energy Action Plan.

"We are thrilled to welcome Arrival to Charlotte and are excited to partner with them on sustainable initiatives within our community. Their commitment to sustainability falls directly in line with Charlotte's priority to move towards clean energy," said Mayor Vi Lyles. "And the job opportunities will offer our residents a career where they will learn innovative new skills in a growing industry."

ENGAGEMENT

COMMUNITY

GREEN CROWN PROGRAM

The City of Charlotte Green Crown Program is a citywide program that shines a spotlight on establishments in the restaurant industry implementing environmentally sustainable practices. This voluntary and free program currently recognizes 25 eating and drinking establishments that actively minimize waste and maximize sustainability through 4 categories: Waste Management, Energy and Water Conservation, Pollution Reduction, & Commitment to the Community.

New Green Crown Establishments in 2020 include:

- Fonta Flora Brewery
- Edge City Brewery
- SWIRL
- Noda Brewing Company

One of our Green Crown establishments, Haymaker, is a LEED Silver restaurant, and is practicing sustainability in their everyday operations. To name a few:

- Water conservation: The staff is instructed to reduce their waste use for cooking and washing dishes, and our dishwashers and toilets are all low flow to minimize water consumption. This is done through education and staff training and teaching staff the importance of cross utilizing products to minimize waste and inventorying with the First In, First Out system.
- Waste management: The restaurant separates waste to the best ability possible, diverting organics from inorganics. When purchasing products and materials, the supply chain team is conscientious to buy in bulk and chose green products that help minimize the volume of waste.
- Energy Conservation: Haymaker collaborated with Trinity Partners Construction to choose energy efficient lighting throughout the building. LED lighting was installed and all the lights were placed on a dimmer to help decrease wattage. Their HVAC system is an integrated water cooled HVAC system that works on a recirculating tank from the tower of our building to provide heating and cooling with a fraction of the energy consumption as a typical condenser coiled HVAC system, cutting back on the need for refrigerant.

To see more Green Crown Establishments and the impactful work they are doing, visit charlottenc.gov/greencrown.

ENGAGEMENT

COMMUNITY

OTHER EVENTS

Fleet Charette

In early March, the Office of Sustainability received an award to convene a workshop for NC local governments to replicate Charlotte's work around sustainable fleet policies. These policies, the Sustainable & Resilient Fleet policy and the Automated Vehicle Locator policy, work together to inform smart decisions around vehicle purchasing and EV infrastructure installation, mitigate idling, and utilize a total cost of ownership model.

Shared Streets Murals

The City of Charlotte's Urban Design Center and Office of Sustainability partnered with local artists to paint 15 street murals in Charlotte neighborhoods. These murals capture the impact of COVID-19 and the resiliency and sustainability of our city.

YMCA Level Up

The City was invited to present at the YMCA Level Up Program to discuss the connection between climate change, air emissions, and public and personal health.

2020 GRANTS & AWARDS

RESEARCH TRIANGLE CLEANTECH CLUSTER™
» Transformation Through Collaboration

DIVERSITY IN CLEANTECH AWARD

This award for Charlotte's RENEW program, recognizes an organization or initiative for significant contributions to ensuring the cleantech workforce reflects all the people it serves, including efforts to expose underrepresented groups to cleantech career opportunities, and corporate efforts to hire and support underrepresented employees through mentoring and networking initiatives.

CENTRALINA REGIONAL COUNCIL

CENTRALINA REGION OF EXCELLENCE CLEAN CITIES AWARD

This award for Charlotte's Green Fleet Policies, recognizes outstanding achievements in support of Centralina's mission to expand opportunity and improve quality of life. The Clean Cities award specifically recognizes a project that demonstrates leadership and excellence in clean transportation options, emerging mobility initiatives, and alternative fuel activities.

U.S. GREEN BUILDING COUNCIL USGBC

LEED FOR CITIES AND COMMUNITIES GRANT

This grant provides support to a cohort of local governments pursuing certification under the LEED for Cities and Communities rating system.

ssdn SOUTHEAST SUSTAINABILITY DIRECTORS NETWORK

SOUTHEAST SUSTAINABILITY DIRECTORS NETWORK CHARETTE GRANT

This grant supported a workshop with NC local governments to discuss green fleet policy best practices.

Federal Transit Administration

LOW OR NO EMISSION GRANT

CATS won an FTA Low-No award of $3.7M with a 50% local match to result in the procurement of six BEBs plus accompanying infrastructure and workforce development. The buses are to be run on opportunity corridors connecting equity to transit.

100 BEST FLEETS

GREEN FLEET AWARD

Charlotte ranked #26 out of a possible 38,000 public fleets in North America to win The 100 Best Fleet's Green Fleet Award for 2020.

NC Clean Energy TECHNOLOGY CENTER

CLEAN FUEL ADVANCED TECHNOLOGY GRANT

This grant was awarded to purchase four mobile, solar-powered, level 2, public EV charging stations used to support EV fleet needs as well as encourage the community adoption of EVs.

CHARLOTTE IN THE NEWS

ENVISION SOLAR DELIVERS FOUR EV ARC™ EV CHARGING STATIONS TO THE CITY OF CHARLOTTE, N.C. FOR EMERGENCY MANAGEMENT AND SUSTAINABILITY INITIATIVES

City Leaders Selected EV ARC Solar-Powered Charging Stations as a Visible Sustainability Commitment for City Fleet and Public Use, and Because of their Mobility for City Events, Emergency Preparedness

Duke Energy, City of Charlotte team up on solar power project in North Carolina

Arrival establishes its North American Headquarters in Charlotte N.C.

The Charlotte Observer

Charlotte helping build new solar farm big enough to power 10,000 homes per year

Cool Globes: A Public Art Exhibit With A Cause -- And Perfect For A Pandemic

SMARTCITIESDIVE

Charlotte, NC's green tariff solar deal could spark wider trend in cities

WORLD RESOURCES INSTITUTE

Charlotte Is the Largest US City to Purchase Renewable Energy Through a Green Tariff

Duke Energy solar contract, grant for electric-vehicle chargers approved

CHARLOTTE BUSINESS JOURNAL

Charlotte Airport Gets Electric Buses. Who's Next — ATL? IAD? JFK?

CATS Gets Federal Grant To Buy Its First Electric Buses

Charlotte and Urban League partner for renewable energy job training Program for green economy workforce preparation

2021: YEAR OF IMPLEMENTATION

A FEW OF OUR UPCOMING GOALS

BUILDINGS

- Council adoption and implementation of Sustainable Facilities Policy across all city-owned facilities.
- Publish the first municipal benchmarking report to share energy usage data across city buildings.

ENERGY GENERATION

- Construct solar panel installations at city facilities that is expected to generate over 1,000 MWh of zero-carbon electricity yearly.
  - These solar energy systems are expected to yield air quality benefits, create workforce development opportunities, and generate projected energy savings of over $2 million over the 25-year life of the systems.

EQUITABLE WORKFORCE DEVELOPMENT

- Continue training participants in the Renewable Energy and Efficiency Workforce (RENEW) Training Program through Urban League and Goodwill Industries.
  - Connect local employers with RENEW graduates to make hires.

IMPLEMENTATION & ENGAGEMENT

- Support integration of the SEAP into the Unified Development Ordinance process including integration of EV charging.
- Complete greenhouse gas emissions inventory.
- Continued engagement with Duke Energy and North Carolina Utilities Commission to influence low carbon outcomes.
- Leverage internal and external SEAP stakeholder groups to advance 2030 and 2050 SEAP goals.

TRANSPORTATION

- Continue replacing internal combustion engine vehicles with electric vehicles across City fleet in accordance with our Sustainable Fleet Policy.
- Support the Strategic Mobility Plan in its development to connect mode-share goals with emissions reduction.
- Continue to install EV chargers with FY21 $1 million investment across City facilities.
- Begin implementation of CATS Battery Electric Bus (BEB) pilot.

SEAP

STRATEGIC ENERGY ACTION PLAN

CITY of CHARLOTTE

Read the full SEAP at www.charlottenc.gov/seap.

CLTSustainable

CLTSustainability