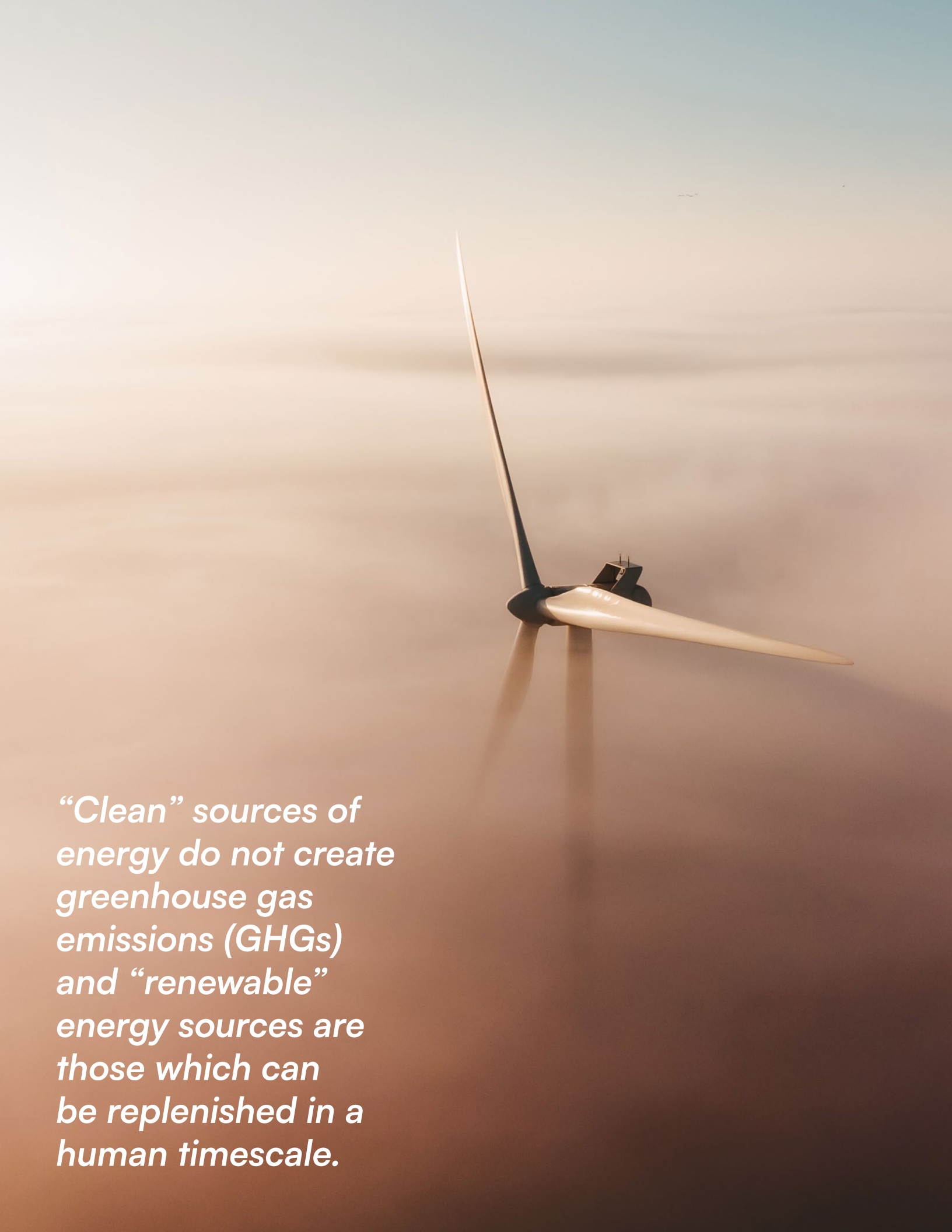
ATHENS-CLARKE COUNTY

# Clean & Renewable Energy Plan

Southface

greenlink



*“Clean” sources of energy do not create greenhouse gas emissions (GHGs) and “renewable” energy sources are those which can be replenished in a human timescale.*

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# Acknowledgements


**Community Advisory Board**

On May 22, 2020, Mayor Girtz appointed a Community Advisory Board (CAB) to guide the development of the Clean Energy Action Plan. This Board consists of representatives from community organizations that includes:

- 100% Athens
- Athens Area Home Builders Association
- Action, Inc
- Athens Housing Authority
- Athens Land Trust
- Athens Technical College
- East Athens Development Corporation
- Northeast Georgia Business Alliance
- U.S. Green Building Council Athens Georgia Branch
- Williams & Associates
- ACCGov Sustainability Office

Our thanks to this outstanding group who met monthly for more than 2 years, attended routine extra meetings, assisted with public engagement activities and, throughout, shared their insights, concerns, guidance, and time. Their generosity and community commitment made this plan far better than it would have been otherwise.

**Athens-Clarke County Unified Government Staff**

Our thanks, also, to the staff of the many departments and offices of the Athens-Clarke County Unified Government. These dedicated employees enthusiastically engaged the process, worked the CAB, attended meetings, shared their expertise, researched questions, and provided significant contributions to the plan. Their contributions and dedication is greatly appreciated. Participating Offices and Departments include: Central Services Department, Economic Development Department, Geographic Information Office, the Inclusion Office, Housing and Community Development Department, Planning Department, and Public Information Office

Community Members and Organizations

Our deep appreciation and thanks to the community members, business and industry representatives, and the 80+ non-profits, agencies, and organizations, who shared their thoughts, concerns, criticisms, and encouragement. The time these groups and individuals donated have been a critical part of shaping and guiding the development of the plan. Their wisdom and thoughtful input has been invaluable and much appreciated.

**Sustainability Office**

Created in 2017 as an Office of the Manager, the mission of the Sustainability Office is to promote stewardship of public resources, promoting innovative practices and policies to reduce the Athens-Clarke County Unified Government's environmental footprint, grow the local economy, conserve ecosystem services, and foster a thriving community by networking staff, ideas, and resources across departments and throughout the community.

**Southface**

Southface Institute ("Southface") has promoted sustainable development and green building through education, research, advocacy and technical assistance since 1978 under the governance of a Board of Directors. The nonprofit organization is a leader in the industry with regards to coordination, development, and execution of clean energy strategies.

**Greenlink Analytics, LLC**

Greenlink Analytics (“GLA”) is an Atlanta-based clean energy and equity research non-profit organization equipped with sophisticated proprietary analytical technologies and deep industry knowledge in the clean energy space, receiving accolades from MIT, Georgia Tech, Yale, and the National Science Foundation, among others. It uses these technologies to help create a smarter, cleaner, and more equitable future.

# Executive Summary

The Athens Clean Energy Plan serves as a guidebook for achieving a local, equitable clean energy transition while reducing global greenhouse gas emissions. Continued population growth in Athens-Clarke County significantly contributes to increased urbanization and associated issues such as increased energy consumption, impervious surfaces, urban heat island effect, pollution, and stormwater runoff. Although climate change scenarios resulting from greenhouse gas emissions threaten public safety and quality of life for all Athens' residents, traditionally marginalized communities are most at risk for experiencing the negative economic and social consequences of climate change; this Plan aims to rectify racial and economic disparity through a clean energy framework. Fostering local, regional, state, and federal partnerships and engaging Athens's utility providers and their regulators are integral to the success of this Plan and the achievement of meaningful milestones toward a clean energy future. The ambitious goals set forth by this Plan necessitate bold policy interventions, particularly when accounting for increased energy consumption due to increased expected population growth and expected increased energy rates.

> The plan states that "clean" sources of energy do not create greenhouse gas emissions (GHGs) and "renewable" energy sources are those which can be replenished in a human timescale. These clean and renewable sources include energy efficiency, solar power, wind power, hydropower, energy storage, and Renewable Energy Credit (RECs), but explicitly do not include nuclear power, biomass, natural gas, or coal, acknowledging long term advances may bring nuclear into the clean category

ACCGov has invested in and uplifted sustainable policy and planning initiatives as early as 1998 ranging from, but not limited to, investments in green building designs and standards, installation of solar arrays and geothermal heat pumps in municipal buildings, and the installation of a Landfill Gas Capture System. This Plan is a direct result of the culmination of the 100% Athens team's grassroots efforts and community partnerships that convinced the Athens' Mayor and Commission of the necessity to commit to a clean energy transition. Their 2016 Clean and Renewable Energy Resolution, 2017 Envision Athens Action Agenda, and the 2018 Athens-Clarke County Comprehensive Plan laid the foundation for the development of this clean energy plan. Additionally, the 2022 Strategic Plan adopted by the Mayor and Commission illuminates Athens's commitment to building a more resilient and equable future and is nested within this clean energy plan. Athens joins the cities of Atlanta, Augusta, and Savannah in creating clean energy resolutions, and leading Georgia into a new era in the renewable energy landscape.

> **Goal:** 100% clean and renewable electricity for all municipal properties, government operations, and community-wide buildings by 2035, and to meet community electricity demand with 100% clean and renewable electricity by 2050. *See Appendix 7*

Public community engagement and education was instrumental in the creation of this clean energy plan, and despite the limitations created by the COVID-19 pandemic, public participation was fostered through a variety of virtual platforms and events ranging from

listening sessions, surveys, town halls, and multidisciplinary workshops.

The Community Advisory Board (CAB) was instrumental in creating a diverse and comprehensive plan that amplifies the voices of local businesses, non-profits, educational institutions, and community organizations throughout Athens-Clarke county, and ensured an array of Athens' community members had multiple opportunities to engage in the clean energy planning process. Developing this clean energy plan represents a milestone in addressing climate change, improving energy equity in Athens, and reducing the impact of fossil fuel energy on public health and the environment. The implementation of this Plan requires achievable policy changes that cultivate a resilient clean energy economy and will establish Athens as a leader in climate change solutions.

## Centering Equity

Energy burden is defined as the amount of income spent each month of energy compared to total monthly income. High energy burden limits some Athens' resident's ability to access clean energy subsidies and low-interest loans as well as invest in clean energy solutions like home weatherization and energy-efficient appliances. An equitable energy transition includes energy efficient housing opportunities, the development of a skilled workforce, and public health solutions. This Plan incorporates an analysis of the locations and percentages of energy burdened households in Athens-Clarke County in order to target energy vulnerable populations in Athens for prioritization and implementation of the Plan.

## Equitable Priorities

- Include lower-income, Black, People of Color (POC), and senior communities in the development of policies and programs
- Decrease the community's energy burden, with an emphasis on historically marginalized communities, using sustainable and renewable technologies
- Expand clean energy workforce training and development

## Action Areas

1. **Lead by Example**
   - 100% renewable energy for all municipal buildings

2. **Build Community Through Investment**
   - Expand and advance weatherization programs and partnerships
   - Community Energy Fund

3. **Be Part of the Larger Solution**
   - Actively engage and intervene in future Integrated Resource Plans (IRPs)
   - Create partnerships with similar cities

4. **Build a Workforce and Improve Opportunities**
   - Build a green jobs pipeline
   - Create and advance partnerships with schools, businesses, education and apprenticeship programs

5. **Closing the Gap**
   - Buy local (Renewable Energy Credit) RECs

6. **Community Education and Engagement**
   - Establish and maintain a clean energy task force
   - Incentivize targeted educational programming
   - Ensure meaningful community involvement through free, focused workshops and events

# chapter one

# The Need for a Plan & Climate Change

**DEFINITIONS & ABBREVIATIONS**

**ACC** — Athens-Clarke County

**ACCGov** — Unified Government of Athens-Clarke County

**COP26** — United Nations Framework Convention on Climate Change Conference of the Parties 26

**LED** — Light-Emitting Diode

In February 2021, the United States rejoined the Paris Agreement, one of the most important international agreements on climate change.[1] The Athens-Clarke Unified Government recognizes that countries, states, and cities need to work collaboratively to reduce global warming emissions to levels that will limit the increase in global temperatures to 1.5 degrees Celsius (2.7 Fahrenheit).[2] Building upon this commitment, the US committed to reducing economy-wide greenhouse gas emissions by 50 to 52% below 2005 levels by 2030 at the United Nations Climate Change Conference (COP26).[3]

People living in Athens-Clarke County (ACC) are already experiencing the impacts of the growing climate crisis. Individuals employed in Athens-Clarke County's agricultural sector will experience extreme levels of heat as they work outdoors and damages caused by natural disasters could create worsening economic conditions for this industry and beyond. Flooding events, rising temperatures, and a loss of native species and habitats will increasingly harm the community.

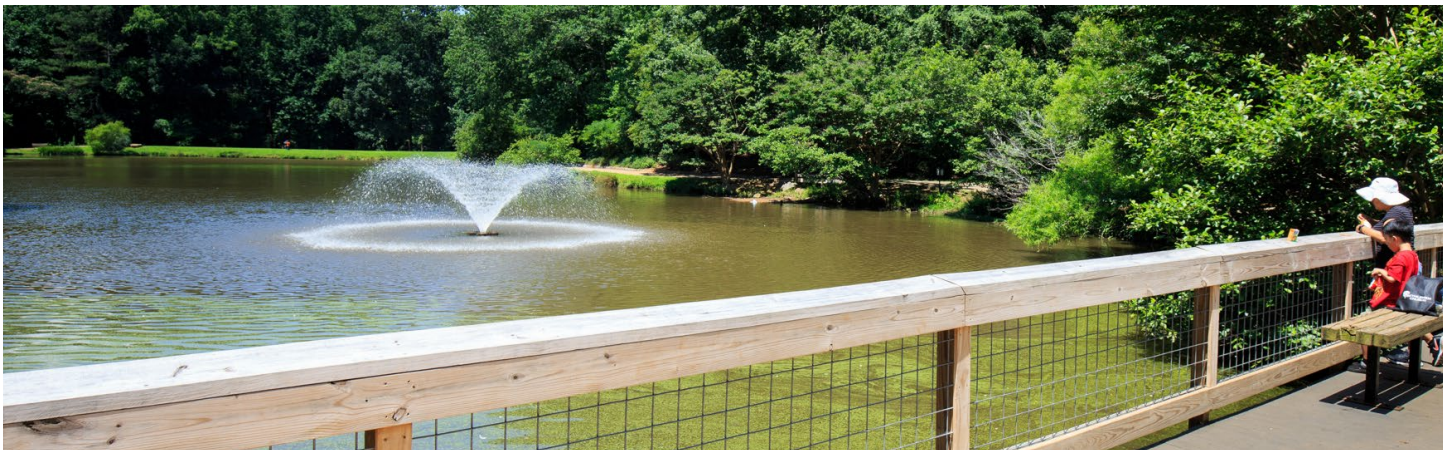
Without immediate action, both the number and intensity of these types of destructive incidents will continue to increase. The destruction of both the manmade and natural environments for which Athens is known is expected to continue. Further, the climate crisis will worsen existing social and economic issues, especially for vulnerable and traditionally marginalized individuals and populations.

## Without Change, Athens Future Looks Dangerous

Current climate models project that, by the second half of the 21st Century, temperatures in Athens will increase by 2.5 degrees Fahrenheit and humidity will increase by 78%.[4] High temperatures pose the greatest hazard to lower-income communities, persons experiencing homelessness, seniors, and children.

Georgia currently experiences 20 dangerous heat days a year, where temperatures can be as high as 103 degrees Fahrenheit. Data indicate that by 2050, the number of dangerous heat days will increase to 90 days.[5]

MEMORIAL PARK FOUNTAIN



Children and the elderly compose up to 30% of the Athens population and are especially vulnerable to such extreme weather events.[6]

Lower-income families and neighborhoods are particularly vulnerable. These vulnerable families are disproportionately impacted by climate-related events because they lack the funds needed to weatherize homes, to upgrade to more efficient appliances, or to pay rising energy costs. Further, because Athens is one of the most densely populated counties in Georgia, growing urbanization and the loss of green infrastructure that helps mitigate heat means that climate change will increasingly impact the lives of all Athenians.

## Making Changes Locally - Having an Impact Globally

While Athens cannot solve the climate crisis on its own, it can make significant changes locally that will have an impact globally. Each change, small or large, makes a difference. Starting can be as simple as planting more native plants or switching to LED lights; these small steps, collectively, contribute to large changes.

Athens can establish itself as a leader and encourage other communities to become involved in finding solutions by setting goals to decrease greenhouse gas emissions, mitigate pollution, and implement other environmental and economic changes. This document outlines a pathway for a comprehensive and innovative clean and renewable energy transition for ACCGov, the Athens community, and surrounding areas. The plan represents a leap forward in what has been an ongoing effort to preserve and improve the environment, develop equitable solutions, and build and grow a sustainable economy by addressing climate change in increasingly more purposeful and sustainable ways.

Achieving the defined goals of providing clean and renewable energy for all residents will involve not only the Athens community, but also local, regional, state, and federal partners—everyone will play a role.

## Sharing with the Greater Athens Area and Beyond

As Athens moves forward, the process will provide valuable insight and information that can be useful to the larger neighboring metro-Athens areas. Because the impacts of climate change do not recognize any geographic boundaries, sharing and cooperating with other jurisdictions is an integral part of plan implementation.

# chapter two

# Demographics & the Need for Equity

## Demographics — Athens by the Numbers

Understanding the demographic makeup in Athens-Clarke County is important to creating a clean and renewable energy plan that works for everyone. Knowing the unique racial, disability, income, and educational makeup of the community helps ACCGov to make informed choices about where to make investments and who should be prioritized.

The Unified Government of Athens-Clarke County has a population of around 130,000 and is growing at an annual rate of 1 to 1.5%. The age breakdown, seen in figure 2.1, shows a population mostly consisting of individuals between 19 and 65 years of age. These numbers are comparable to national averages.

Currently, 14% of Athens' residents under the age of 65 lack health insurance and 9.6% of individuals identify as having a disability. A clean energy transition can improve the lives of Athens' households through improved indoor and outdoor air quality, and investments toward energy efficiency enable households to lower their energy bills, giving them more money to invest in other important aspects of their lives.

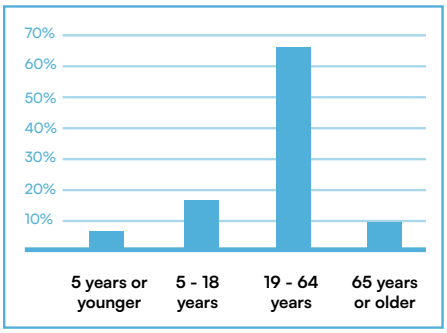
Where the numbers diverge from the national average is within racial demographics. Black and Hispanic/Latino household incomes are barely over half of white household incomes. Energy burden disproportionately impacts people of color.

Clean energy plans like this one provide a critical opportunity to correct past wrongs and ensure a better, equitable future for everyone. ACCGov is committed to acknowledging and supporting residents of all races, ages, genders, and abilities throughout the clean energy transition.

## The Need for Equity and the Impact of Poverty on the Clean Energy Transition

Understanding demographics is a good starting place for evaluating the social, environmental, and economic conditions that describe a community, but data doesn't tell the whole story. Ensuring that everyone has access and the means to take advantage of the Clean and Renewable Energy Action Plan (CRP) opportunities is both imperative and challenging. A key part of the planning effort has been to identify and understand scenarios that will enable all community members to make the transition.

**FIGURE 2.1**
Athens-Clarke County Age Breakdown




## Energy, Poverty, and Vulnerable Populations in Athens

For many years, the South has had low electricity pricing rates, but struggled with extremely high residential electricity bills, in large part due to poor housing stock quality, less energy efficient housing, inefficient appliances, and residential energy consumption - all of which contribute to high energy bills within a household.

Recently, the situation has taken a turn for the worse, with rates climbing. In 2020, the South Atlantic census division had the third-lowest residential electric rates in the United States at 12 cents per kWh, but the average electrical bills were second-highest. In Georgia, electricity rates ranked slightly higher than average (23rd highest), while bills ranked 8th highest.[7] Housing stock quality, inefficient appliances, and increased use of air-conditioning as a result of rising temperatures all contribute to high energy bills within a household.

"Energy burden" is an important measure of equity in a community. It is defined as the amount of household income spent each month on energy compared to a household's total monthly income. It is represented as a percentage, for example, a household spending $2,500 on energy bills each year and making $45,000 a year in median income has an energy burden of 5.5%.

High energy burdens present a danger to marginalized and lower-income populations. These populations, cite paying an energy bill as the primary reason to utilize short-term loan products, a practice that perpetuates cycles of poverty and stifles economic mobility.[8,9]

The impact of high energy burdens can be very difficult to escape. Low-income households are often unable to access important government subsidies, grants, and low-interest loans, presenting barriers to these residents to obtaining energy-efficient appliances, home weatherization, and other upgrades that would substantially lower their energy burdens. Upfront costs, regulatory requirements, and information gaps all play a role in reducing or eliminating low-income participation in many energy efficiency programs offered by utilities and governments.

Renter, and low-income populations are particularly burdened with higher energy burdens, some paying more than 27% toward their energy bills than populations with higher incomes.[10,11,12,13,14] This disparity has its roots in historic and discriminatory practices that are no longer legal in the United States. For example, "redlining," where loan and/or insurance providers restricted services to certain areas of a community based on race, leaving traditionally marginalized and minority populations with scarce access to financial resources. The lack of inaccessible funding for these neighborhoods combined with an aging and insufficient housing stock lead to homes becoming increasingly inefficient. Government and utility programming focuses on bill assistance instead of efficiency improvements, failing to address the root causes of persistently high energy burdens.[15]

Without provisions in the plan that specifically address providing opportunities to weatherize homes, upgrade appliances, and install clean energy alternatives, these houses will continue to contribute to inequitable energy outcomes for lower-income and minority neighborhoods as energy costs increase.

## Clean and Renewable Energy Effects on Education, Employment, and Economic Opportunity

As Athens transitions to a clean energy economy, workforce development is a top priority for residents and workers alike. Forecasts around clean job creation will help Athens' economic players to prepare for these emerging job sectors. Ensuring that residents of Athens-Clarke County can find rewarding employment in the economy is a top priority. Coordinating with business leaders, workforce development professionals, and government officials is a necessary step in guiding the Athens community towards a cleaner, stronger economy.

There is an emphasis on education in Athens, with 88% of residents graduating from high school, 2% higher than the national average. Additionally, 44% of residents have a Bachelor's degree, substantially higher than the national average of 35%. A lack of education can contribute unemployment, leading to gaps in skill levels and reduced wages.

With the current, pandemic-driven transition to remote work and education, access to the internet has become an essential

community resource. In Athens, more than 93% of households have a computer and 86.5% have a broadband internet subscription.[16]

While virtual tools are available, how well these tools are being used are of concern. Aging hardware, lack of training, inadequate software, and the lack of confidence using electronic devices, especially among older populations, makes digital learning a challenge. This same challenge has an impact on efforts to expand educational opportunities ranging from clean energy information to professional and skill development.

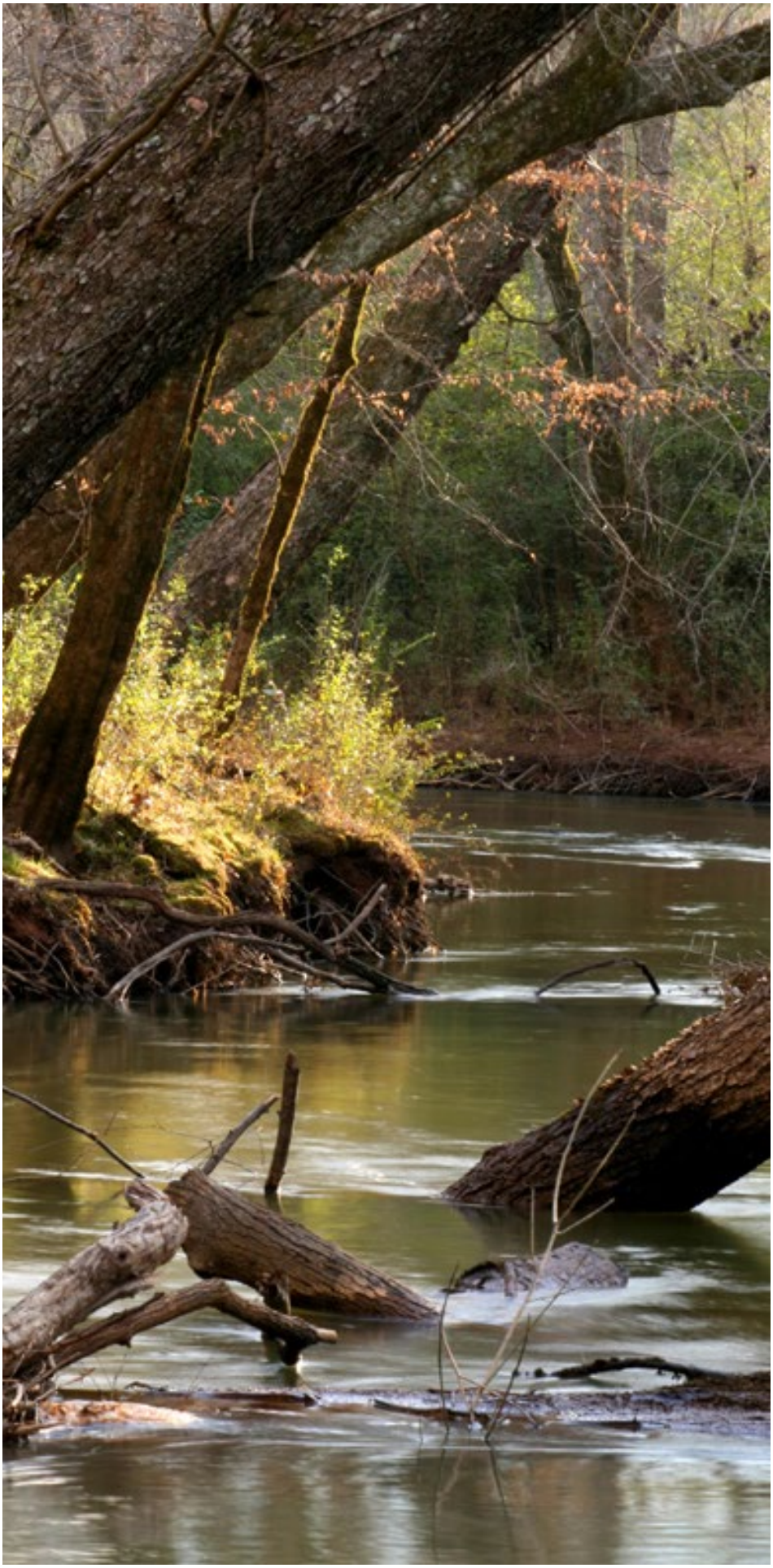
Roughly 6,000 households in the Athens community rely on SNAP (Supplemental Nutrition Assistance Program) benefits to cover their food expenditures, indicating that many families struggle to cover necessities.

Lowering energy consumption and bills will provide additional community benefits such as:

- increased economic stability
- improved air quality
- reduced levels of stress.

Utility-provided incentives through energy providors are primarily available to and received by wealthier households, increasing the gap between low- and high-income households.[17]

If the goal of a 100% clean energy transition for 100% of the community is to be achieved, developing viable options for those who have the fewest resources is essential to success.



## The Unified Government of Athens-Clarke County's Commitment to Equity

Everyone should have access to a clean, safe, and healthy environment. Building an equitable and sustainable Athens means providing access to clean energy, adequate and affordable housing, opportunities for good-paying jobs, and so much more. Climate change affects communities of all races, political affiliations, sizes, and locations. However, some groups will experience more significant, adverse impacts of climate change due to pre-existing disparities and inequities. Athens-Clarke County's Mayor and Commission have defined equity as:

*Equity means justice, fairness, and including the different lived experiences, backgrounds, and needs of individuals and groups in policies and practices to close the gaps and improve outcomes.*[18]

In developing and implementing the Clean and Renewable Energy Plan (CRP) in the coming years, ACCGov includes a focus on equity that:

- *Evaluates and implements policies and procedures to ensure equitable treatment and equitable access to resources, moving toward a community where identity is not a predictor of outcomes*
- *Evaluates and assesses the impact of policies on residents and staff to ensure that actions are based on specific, identified needs rather than assumptions*
- *Commits to taking consistent action to identify and eliminate disparities in order to increase positive outcomes throughout the community*

The development of a clean energy plan that includes a major focus on equity also reflects multiple goals outlined in the Strategic Plan adopted by the Mayor and Commission on March 2022.

Strategic Plan goals include:

**Goal 1: Good Neighbors**
Identify, acknowledge and address racism, trauma, and harm in the community; decrease crime; create respectful and welcoming spaces; support and promote healthy lifestyles; enhance public trust

**Goal 2: Identify & close gaps in partnership with the community**
Promote awareness and access to Athens' workforce and workplace development opportunities; relationship building; community transformation through addressing community needs; accessible social delivery services and reaching marginalized people and those in most need; support a diverse, innovative and creative economy

**Goal 3: Organizational Improvement**
Recruit, reward and retain high performing employees internally and externally and those coming out of the justice system; create a culture of high performance; improve service delivery; increase resident engagement

**Goal 4: Quality, Stable, Affordable Housing for All**
Support home ownership by increasing opportunities for low and middle income people; create diverse, affordable housing options by updating development and zoning codes and identifying funding/resources; preserve and increase the supply of affordable rental housing; prevent and reduce homelessness; improve equitable housing; tenant support to improve quality of life

**Goal 5: Safely Move Around Athens**
Strive toward zero traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all while reducing auto centricity

**Goal 6: Built & Natural Infrastructure**
Planned new infrastructure; equitable access to infrastructure; infrastructure funding; 100% Clean and Renewable Energy resolution; address ecosystem health along with infrastructure sustainability and resilience[19]

The CRP reflects the Mayor and Commission's commitment to a healthy, sustainable, and equitable future[20] and continues efforts to build such a community.

## Hope for the Future

To succeed, the transition to 100% clean energy will require the involvement and investment of each community member through actions both small and large. Success will require working with the minority, traditionally marginalized, low-income, and vulnerable populations to develop pathways for their participation in the transition, thus freeing money spent on energy for other family needs.

ATHENS-CLARKE COUNTY CITY HALL

# chapter three

# DEFINITIONS & ABBREVIATIONS

**Biomass** — Energy produced by burning organic matter, such as timber, solid waste, landfill gas, and alcohol fuels.

**Charrette** — An intensive, collaborative planning session incorporating open houses and public workshops utilized to create a comprehensive plan.

**Coal** — A fossil fuel energy source that is composed of a combustible black or brownish-black sedimentary rock with a high amount of carbon and hydrocarbons formed from the remains of plants. Coal is classified as a nonrenewable energy source because it takes millions of years to form.

**Demand-Side Management** — Programs designed to save energy and avoid the need to produce energy through engaging energy users. These programs traditionally focus on increasing energy efficiency, engaging users in demand response (decreasing a customer's consumption during stressful times on the grid), or distributed energy resource management. Such programs are often impactful during "peak hours". Peak hours are times during which demand for energy reaches high levels, commonly driven by households and businesses consuming energy at the same time (e.g., during mid-afternoon in the summer when air conditioners are working hard to cool homes and businesses.)

**Electric Membership Cooperative (EMC)** — Member-owned, non-profit utilities.

**Energy efficiency** — Using less energy to obtain the same level of comfort by reducing energy waste. This can be done through weatherization investments and efficiency upgrades.[21]

**Energy storage** — Using batteries to store energy produced by resources such as renewables and fossil fuels. Energy storage allows the energy to be used when it is needed, versus only when it is produced. For example, solar panels and wind turbines produce energy when the sun is out and when the wind blows, but they may produce more energy than is needed at the time of production. Storing the energy allows it to be used when needed.

**Energy waste** — Energy consumption that is done mindlessly or carelessly, such as leaving the lights on when one is not in the room, or, energy that is not efficiently used, like with older appliances and technology.

**Equity** —Equity means justice, fairness, and including the different lived experiences, backgrounds, and needs of individuals and groups in policies and practices to close the gaps and improve outcomes.[18]

**Hydropower** — Electricity produced through the natural flow of water running over a turbine connected to a generator. Water can be controlled by a man-made dam or naturally flowing.

**Natural Gas** — A non-renewable fossil fuel formed by the decomposition of organic matter, occurring as a combustible mixture of hydrocarbon gases, primarily methane. This gas can be used to generate electricity at some power plants.

**Nuclear Power** — A means of producing electric power that uses radioactive materials to boil water and create steam, rotating a turbine shaft connected to an electric generator.

**Renewable Energy Credit (REC)** — A financing mechanism that allows a purchaser to buy the environmental attributes of renewable energy produced in another region which can be counted toward the purchaser's energy consumption portfolio.[23]

**Solar Power** — Energy produced from the sun by solar photovoltaic (PV) technology. Solar panels can be directly installed onto a building or can be grouped together to power multiple buildings located close to the group of solar panels.

**Sustainability** — Meeting the needs of a community or society without sacrificing the ability for future generations to meet their own needs.

**Weatherization** — Improving building envelope, heating and cooling systems, and electrical systems of a home or building to reduce energy waste.

**Wind Power** — Wind turbines have blades like a windmill, turned by the wind. The blades are connected to a drive shaft that turns an electric generator to produce electricity.

# The Energy Landscape, Planning with the Community, and the 100% Resolution

## Athens-Clarke County's Energy Landscape

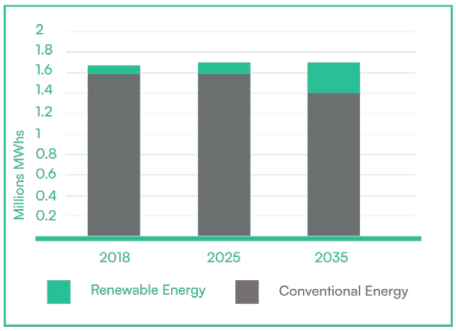
ACCGov's decision to move toward 100% clean and renewable electricity for all municipal properties, government operations, and community-wide buildings by 2035 and to meet all community energy needs with 100% clean and renewable energy by 2050 is an inspiring and ambitious goal. It will require the coordinated efforts of many stakeholders to provide an equitable transition for Athens' residents and business owners. The beginning point for this transition is understanding Athens' current energy landscape.

In 2018, the community's electricity demand was roughly 1.7 million megawatt-hours (MWh), representing about 2% of Georgia Power's total electricity demand. Energy consumption from all Athens buildings and transportation accounted for over 2 million metric tons (MMT) of carbon dioxide (CO2), nearly 90% of Athens' total emissions.[24] If Athens continues down the path of business-as-usual (BAU), with no new policy interventions, electricity consumption is expected to increase above 2018 demand by 2.2% in 2025 and 6.0% in 2035 (Figure 3.1).[25]

While homes and businesses are projected to improve their average energy performance due to better technologies and efficiency standards, electricity demand is expected to increase by nearly 100,000 MWh between now and 2035. This increase is due in part to expected population growth, increased commercial development, and increased adoption of electric vehicles, but also includes the continued high-energy demand from homes and businesses that are owned by people who are unable to afford efficient technology that lowers energy use.

Relying on fossil fuels to generate the expected increase in energy demand is a direct contradiction to the goals laid out in the 100% Clean and Renewable Resolution. Increased electricity demand coupled with anticipated increases in electricity rates will also cause increased financial stress on households for some. This may lead to serious or life-threatening situations such as choosing between paying an energy bill or paying for food or medical care.

**FIGURE 3.1**
Athens' Electricity Demand by Year




Source: Greenlink Analytics, 2019

To cover capital expenditures such as new power plants and infrastructure, southeastern utilities like Georgia Power and Georgia's EMCs were expected to increase their electricity rates over 4.5% in 2022 from 2021.[26] The effects of climate change on weather will likely increase and extend the need for air conditioning and will correspondingly increase household energy bills.

Energy burden—the percentage of annual income that a household or an individual pays toward their electricity and/or gas bills—is affected by several factors such as excessive utility use due to outdated appliances or insufficient weatherproofing, low income, lack of access to financial resources needed for retrofitting, and home ownership.

## What's the difference between a Watt and a Watt-Hour?

A watt is the **rate of energy used per second**, while a watt-hour is the **total amount of electricity used**.

A portion of the bills electricity companies charge individuals by their watt-hour usage, on a cents per kWh basis.

1 Kilowatt (kW) = 1,000 watts

1 Kilowatt-hour (kWh) = 1,000 watt-hours

1 Megawatt (MW) = 1,000 kW

1 Megawatt-hour (MWh) = 1,000 kWhs


that runs for **10 hours**

uses 10 (kWh) kilowatt hours

Although all households experience some level of energy burden, the implications differ depending on the financial circumstances of the household. For example, households making $20,000 in gross annual income and paying $100 a month for energy costs carry a significantly higher energy burden, proportionally, than households earning $50,000 with the same energy bill. Athens' average annual energy burden is 7.12%, 2 times greater than Georgia's 3.8% average and 1.6 times greater than the national average. It is as high as 17% in some downtown neighborhoods where the annual income is $17,000.[27]

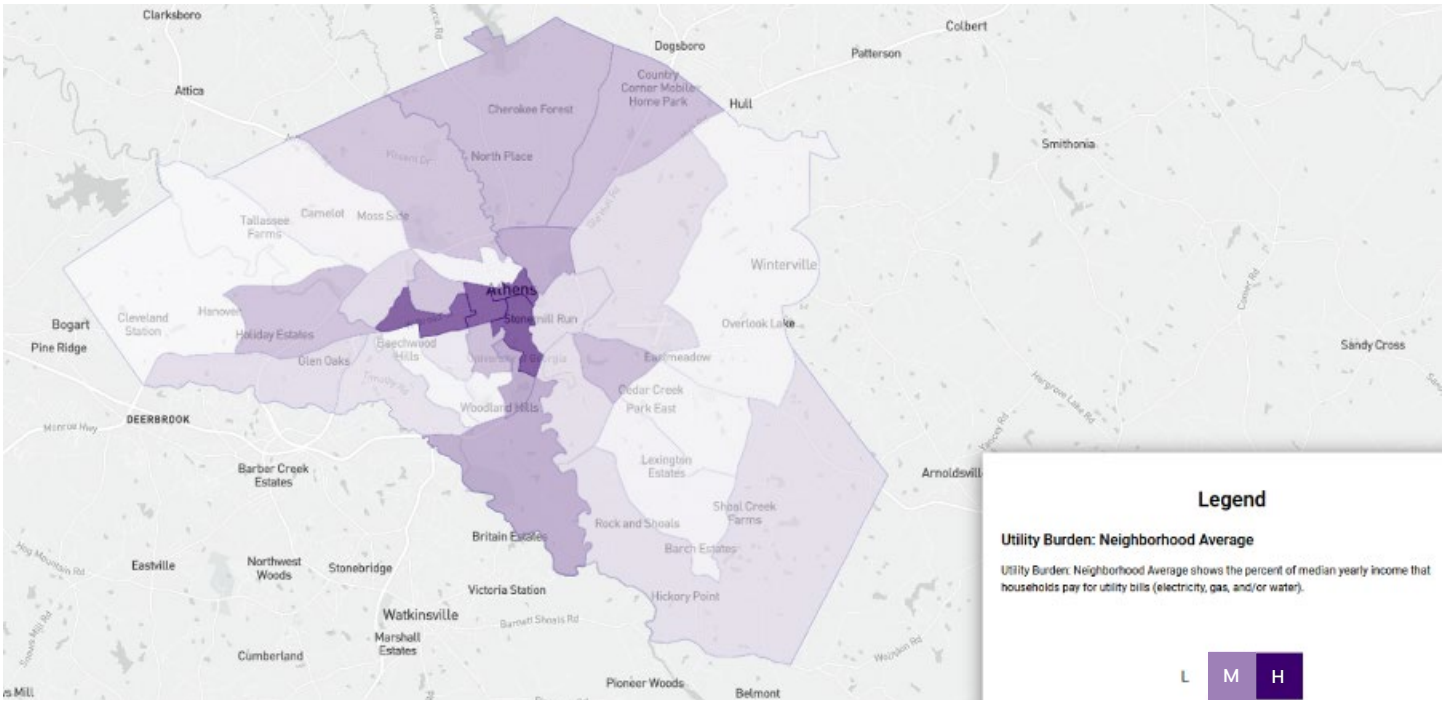
In Athens, the gap between low- and high-income neighborhoods is stark: in neighborhoods with incomes averaging around $42,000 annually, energy burden rates are as low as 2.85% on average. In contrast, the highest energy burden (17.5%) occurs in a neighborhood with an average annual income around $25,000.[28] The anticipated increases in energy costs will increase the energy burden for all community residents, but they will impose a disproportionately high burden on already cash-strapped individuals and families. The map in Figure 3.2 indicates the areas of Athens that carry higher energy burdens.

High energy burden is often not a singular problem but accompanies and drives other disparities. For example, in rural communities surrounding Athens where 40% of households lack access to the internet, the energy burden can be as high as 8%.[29] Further, families with high energy burdens can also be at increased risk for respiratory illnesses including asthma, chronic obstructive pulmonary disease (COPD), and bronchitis due to higher levels of indoor air pollution and living in older housing that has not been retrofitted with proper insulation or upgraded appliances.[30] Figure 3.3 shows that neighborhoods in Athens with high energy burdens also commonly experience higher adult asthma rates.

The Athens neighborhood with the highest energy burden (around 17.5%) also experiences an adult asthma rate of approximately 12%, 1.5 times higher than Georgia's and the United States' median adult asthma rate.[31]

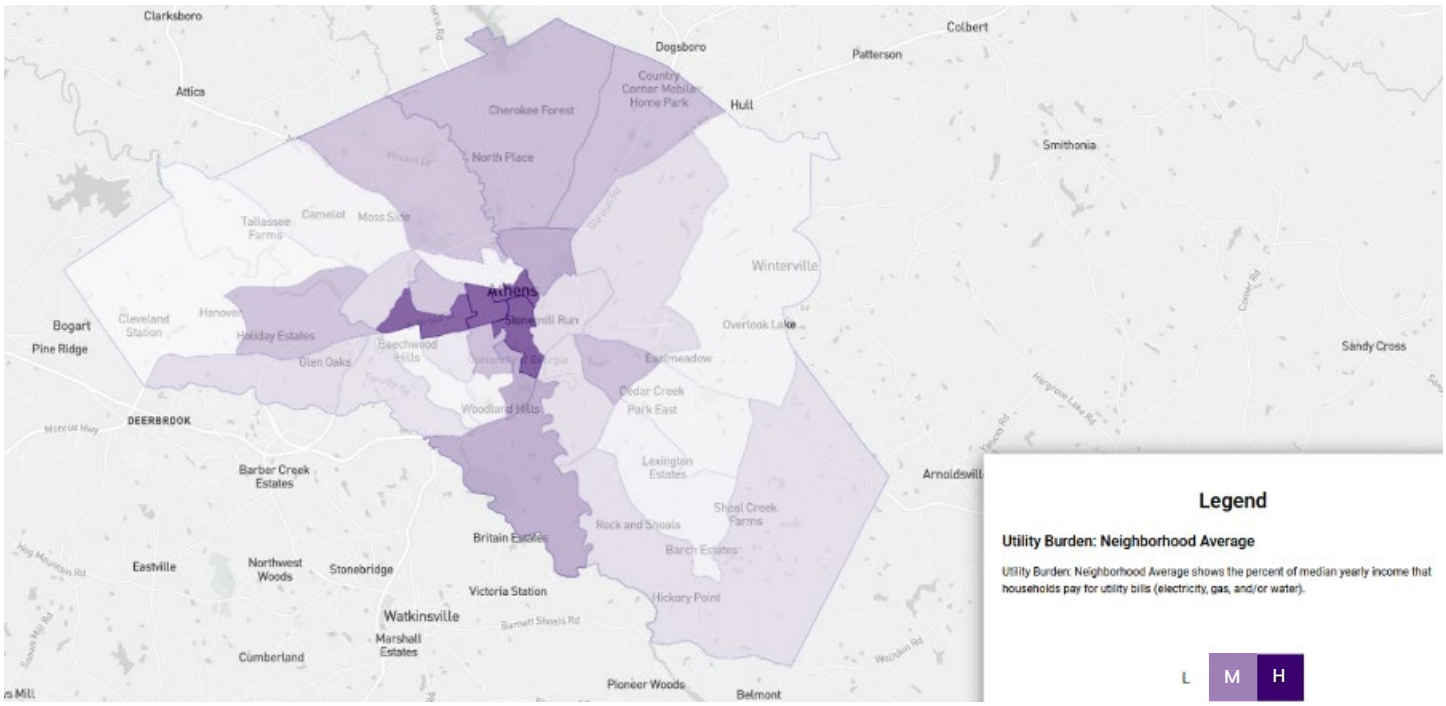
Experiencing a high to severe energy burden is both an economic and public health issue. Research indicates that paying a utility bill is the most common reason people use high-interest short-term loan products that they are often unable to repay.[32] Being forced to choose between keeping the heat on or putting food on the table increases the stress experienced by a household and brings with it the corresponding physical and mental health consequences.

**Figure 3.2**
Energy Burden in Athens, GA, 2017




Source: Greenlink Equity Map

**Figure 3.3**
Energy Burden and Asthma Rates in Athens, GA, 2017




Source: Greenlink Equity Map

## Athens in a Statewide Context

Athens' regulatory environment must be considered when assessing how to achieve the 100% clean and renewable energy goal. Electricity suppliers in Georgia serve specific regions determined by the Georgia Public Service Commission (PSC) and first defined in the Territorial Act of 1973.[33] Georgia does not have a renewable portfolio standard (RPS), nor does the State generally provide significant clean energy incentives or regulations. The State does require that all utilities allow customers to install and interconnect their own generating capacity, such as solar, up to 0.2% of the utility's peak demand.

The State has also clarified that electricity customers are permitted to directly procure renewable energy from solar developers on their own property, through a solar energy procurement agreement (SEPA).[34,35]

Most other significant, state-level energy policy decisions are delegated to the PSC. The mission of the PSC is to ensure safe, reliable, and low-cost utilities; with regard to electricity, their primary role is regulating Georgia Power's resource plans, costs, and rates. They have rate and territorial oversight responsibilities for other utilities but significantly less control over resources and program offerings.
The PSC has five statewide elected commissioners who represent specific districts across Georgia. Athens is in District 2 and is currently represented by PSC Commissioner Tim Echols.

## Utilities Serving Athens

Athens is served by four different electrical utilities, each serving a different portion of the county. The largest share of electricity sold in the Athens community comes from the investor-owned utility, Georgia Power, and is subject to PSC regulation. Every three years, Georgia Power is required to submit an Integrated Resource Plan (IRP) that projects how the utility will meet the energy demands of its customers for the next decade and beyond. This process determines the amount of clean energy the utility will be responsible for delivering (what kind of energy efficiency programs, how much utility-scale solar will be developed, etc.) and when those offerings will be delivered. Following the PSC's approval of the plan, there is typically a rate case that proposes a variety of new rate structures to charge customers so Georgia Power can recover the cost of their approved resource plan. Important decisions such as the compensation paid to customers with rooftop solar pushing energy back to the grid are made in these cases.

Outside of Georgia Power, the Athens community has small areas served by Jackson Electric Membership Cooperative, Rayle Electric Membership Cooperative, and Walton Electric Membership Cooperative. There are 41 Electric Membership Cooperatives (EMCs) in Georgia, most of which have cooperative arrangements to purchase power from Oglethorpe Power—the company which generates the power the EMCs sell to their customers. The Georgia PSC oversees territorial issues, loan applications, and rate filings for EMCs, but other decisions are made by an EMC's elected Board of Directors. The Board representatives are elected for specific districts within the EMC's territory.

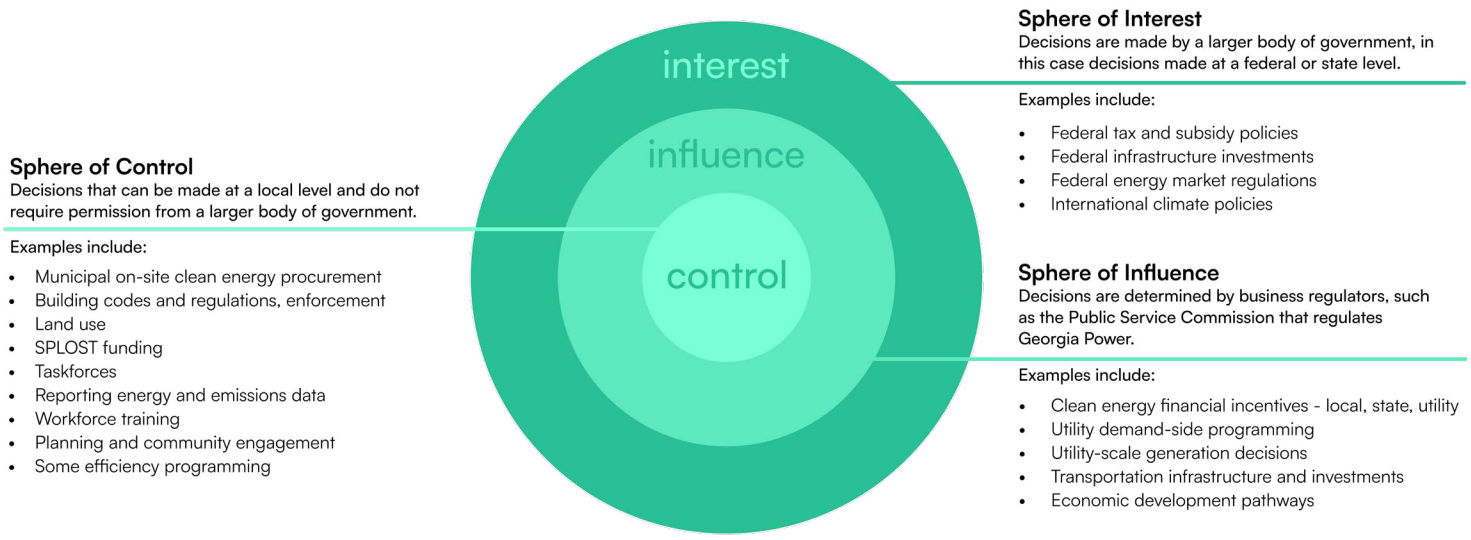
### What is a Tariff?

A tariff is decided by the utility and PSC through a rate case. Tariffs specify the costs or rate structure that the utility may charge customers, depending on what customer type or "class" they are. This is usually determined by the building type or activity or other characteristics like on-site generation or high energy demands.


Tariffs also often include riders to provide funds for specific purposes. For Georgia Power customers, some common riders are environmental compliance costs, nuclear construction costs (the cost of new nuclear units at Plant Vogtle, under construction as of the writing of this plan), and demand-side management programs.

**Figure 3.4**
Athens' Energy Policy Position

Source: Greenlink Analytics. (2022).




Currently, Athens' representatives are Alton Thornton (Jackson EMC), James Mathews (Rayle EMC), and Jim Whitely (Walton EMC) who each serve as one of nine directors with 3-year terms. These Boards make program and planning decisions that directly affect clean energy deployment in their respective EMC territories.

Quickly increasing the amount of clean electricity supplied to Athens from beyond the community's borders will require engaging these utilities and their regulators. However, decisions made by these regulators are as much social and political as they are economic and technical. Figure 3.4 provides a visual representation illustrating Athens' balance of control and influence across different social and political groups. The development and implementation of ACCGov's plan will require collaboration with a variety of energy producers, state agencies, and regulators to improve equitable access to clean energy by providing opportunities and benefits to all residents.

## How We Got Here - The 100% Resolution

The development of the Athens CRP is a community-driven achievement that began with ACCGov's decision to commit to a 100% clean energy transition. This decision was the culmination of a grassroots effort initiated by the 100% Athens team, a coalition of local nonprofits, labor organizations, community residents, and environmental groups that sought community input and buy-in. Over the course of several months, the group's steering committee hosted public forums and other community events to raise awareness of the value of moving Athens toward 100% clean and renewable energy. By late 2018, the Mayor and Commission had been convinced of the importance of transitioning to a clean energy future and committed to achieving this goal in their Clean Energy Resolution adopted in 2019 (to see the entire resolution, see Appendix 7: 100% Clean and Renewable Energy Resolution).[36] This Resolution calls for the development of a plan to guide Athens toward a 100% clean energy transition in the years to come, leading to the development of the Athens CRP.

Developing this clean energy plan represents a milestone in addressing climate change, improving energy equity in Athens, and reducing the impact of fossil fuel energy on public health and the environment. In addition, a major component of the plan is to provide sustainable energy solutions and opportunities that are accessible to traditionally marginalized and vulnerable populations—populations which historically spend

a disproportionate percentage of their income on high energy expenditures. This comprehensive plan is an essential first step in achieving these goals and outlines specific policy pathways needed to accomplish them.

This effort builds on other clean energy and sustainability efforts made by ACCGov and the community in recent years. Developed in 2017, the Envision Athens Action Agenda serves as a community development planning tool for the community.[37,38] The participant-driven agenda proposes over 100 projects, policies, and programs to improve the community's natural environment, economy, and the health of its residents. The renewable energy and sustainability section of the CRP calls for creating protected greenspaces, reducing water consumption per capita, decreasing solid waste disposal to landfills, and increasing energy efficiency efforts and the use of renewables.

Influenced by Envision Athens Agenda, the 2018 Athens-Clarke County Comprehensive Plan laid out a framework for future land use in the community, outlined several neighborhood improvement plans, and expanded on the Envision agenda.[39]

Stakeholders involved in the Comprehensive Plan emphasized the need to consider Athens' "Greenbelt" (rural areas marked for conservation), management of the community's trees, and water quality. The Athens-Clarke County Clean & Renewable Energy Action Plan builds on these goals and highlights the need for effective and equitable solutions in order to achieve ACCGov's 100% clean energy goals by 2035 and 2050.

## Significant Accomplishments by ACCGov

In addition to planning initiatives, over the last 25 years ACCGov has been systematically completing renewable energy projects for the community, including:

**1998**
Building the community's first "green" building at Sandy Creek Nature Center using passive energy designs, efficient building systems (ex: 5-ton geothermal heat pump), and recycled, recyclable, or minimum impact building materials. These features continue to be highlighted in the Nature Center's educational programming.

**1999**
Incorporating green building standards into all ACCGov new construction.

**2010**
Installing a solar array at the ACCGov Jail and Corrections Department to improve the facility's energy performance.

Installing a ground source heat pump at the Solid Waste Administrative building that has provided significant utility savings and avoided 14 tons of CO2 emissions annually.

**2012**
Installing a Gas Capture System at the ACCGov Landfill to recycle natural gas into direct energy for Athens' power grid. This system reduces the amount of landfill-produced methane in the community's groundwater.

Retrofitting the Multimodal Center (a transfer depot for both ACCGov and University of Georgia buses) with solar panels that now avoid 11.6 tons of CO2 emissions annually.

**2017**
Installing a 5-ton geothermal heat pump at the ACCGov Animal Services facility enabling the original building to be expanded while avoiding 14.4 tons of CO2 emissions annually.

**2018**
Installing solar panels at both the Athens Library Solar Garden and the Transportation & Public Works' Street and Drainage campus, together representing 57.3 kW of solar capacity. The solar garden also includes a solar energy education experience via an interactive control center inside the library.

Installing solar water heater at Sandy Creek Nature Center.

**2019**
Completing the 17.9 kW Cooperative Extension Solar Array, generating nearly a quarter of the facility's energy use. The ACCGov Extension is a joint venture between ACCGov and UGA and serves the community through agricultural and environmental education.

**2019**
Installing a 600 kW solar project at the Cedar Creek Water Reclamation Facilities that generates 1.2 million kWh of electricity annually. This sizable solar facility will reduce CO2 emissions by 606,000 tons each year, equivalent to reducing 1.4 million passenger-driven miles off the road annually. This project provided even more benefits to the community since the Cedar Creek Water Reclamation Facilities project was built on an existing plot - there was no tree removal required for the construction of this project.

These accomplishments show that Athens has already been making strides towards a clean and renewable future. But a commitment to spark a transition to 100% clean and renewable energy for all Athenians, including the Black, POC, and senior populations in our community was needed.

SANDY CREEK NATURE CENTER

## The 100% Clean and Renewable Energy Resolution: Clean and Renewable by 2035 and 2050

The overwhelming scientific evidence is that climate change is upon us, and the continued use of fossil fuels is contributing to extreme natural disasters. In 2019, Athens' Mayor and Commission signed the Sierra Club's Mayors for 100% Clean Energy Initiative. They also adopted a 100% Clean and Renewable Energy Resolution committing to a phased transition to clean and renewable energy, with benchmarks set for 2035 and 2050.[40,41]

With this resolution, ACCGov has committed to supplying local government properties and government operations with 100% clean and renewable energy* and community-wide buildings with 100% clean and renewable electricity by 2035. This will be followed by decreased purchases of third-party Renewable Energy Certificates (RECs) to cover municipal and community energy demand by 2050. With its Resolution, ACCGov joined Atlanta, Augusta, and Savannah in the effort to combat climate change in Georgia. The full resolution can be found in Appendix [7].

In addition to setting the goals for transitioning to clean and renewable energy, the ACCGov Resolution[42] set out other goals and commitments.

It resolved to:

- Redress historical inequities by prioritizing resources to train and hire people from within marginalized communities to participate in the energy efficiency and renewable energy workforce, and by facilitating energy efficiency upgrades, opportunities for clean transportation, and renewable energy installations in lower-income communities

- Develop a clean energy action plan within 18 months of the adoption of this resolution, by inviting partnerships with utilities, institutional partners, industries, businesses, and individuals, as well as collaborating with surrounding communities in achieving aligned clean energy and equity goals

- Revisit these goals and associated planning efforts as technologies, policies, and economic feasibility of these commitments change

- Urge the Athens-Clarke County Pension Board and the Athens-Clarke County Deferred Compensation Board to re-evaluate their position about the role fossil fuels play in Athens-Clarke County employees' retirement funds and how they impact the health of Athens retirees' investments and continue reviewing fossil fuel divestment strategies

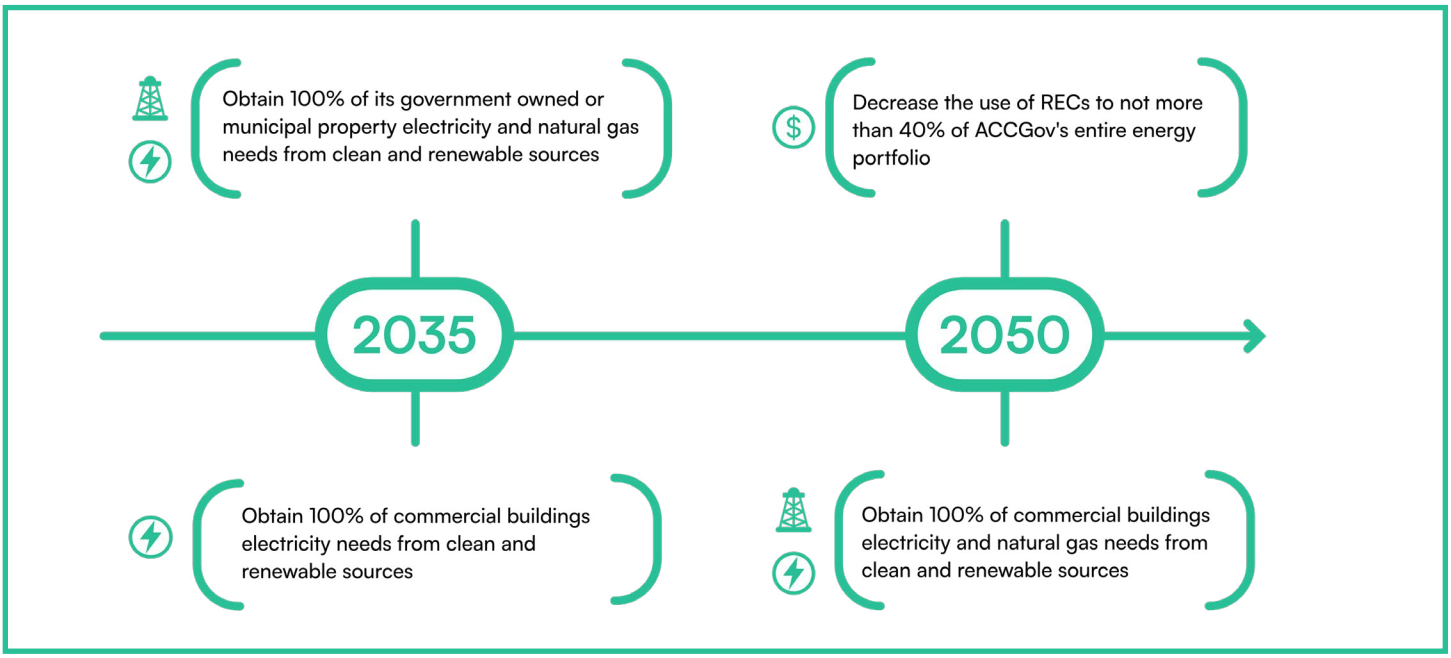
- Encourage increasing investments in renewable and sustainable energy sources

- Authorize and direct the Manager and ACCGOV staff to support this resolution

*** As defined by the Resolution: "Clean and renewable energy pertains to energy sources that are less detrimental to the environment than fossil fuels, and the switch to clean energy sources will reduce air, water and land pollution and the associated impacts on public health and public spending."**

Note: In instances where renewable energy cannot be directly provided, renewable energy credits may be purchased. Renewable Energy Certificates (RECs) confer credit for renewable energy generation to an individual, city, county, region, or state.

**Figure 3.5**
ACCGov County 100% Clean and Renewable Energy Resolution
Source: Athens 100% Clean and Renewable Energy Resolution




## Resolution Authorizes the Development of a Clean Energy Plan

The 100% Clean and Renewable Energy Resolution authorized the development of a clean energy plan. The ACCGov Sustainability Office initiated the planning effort in April 2019, hiring Southface Institute and Greenlink Analytics, consultants with energy and data analysis expertise. The overall vision of the plan is to establish policy pathways to guide ACCGov and the broader community in a transition to clean and renewable energy. With the pathways established, action steps and goals will be developed that will protect natural ecosystem services; strengthen the local economy; mitigate heat, air and other pollutants; combat climate change; and mitigate energy burden — creating a healthier, more livable, and equitable community for all.

This goal is an ambitious undertaking and will be challenging, frustrating, but, ultimately, rewarding. This is a generational undertaking with no blueprint or precedent to draw upon. It will require patience and sustained commitment to build trust and communication between diverse individuals and communities. It will also require collective cooperation and commitment on the part of government agencies, schools, churches, non-profits, community organizations, businesses, industry, and the community, along with state, national, and international partners. Ultimately, success will be defined by the ability of the plan to adopt and implement policies that will improve the lives and wellbeing of every Athens community resident as well as protect the natural world upon which we all depend.

## Definition of Clean and Renewable Energy

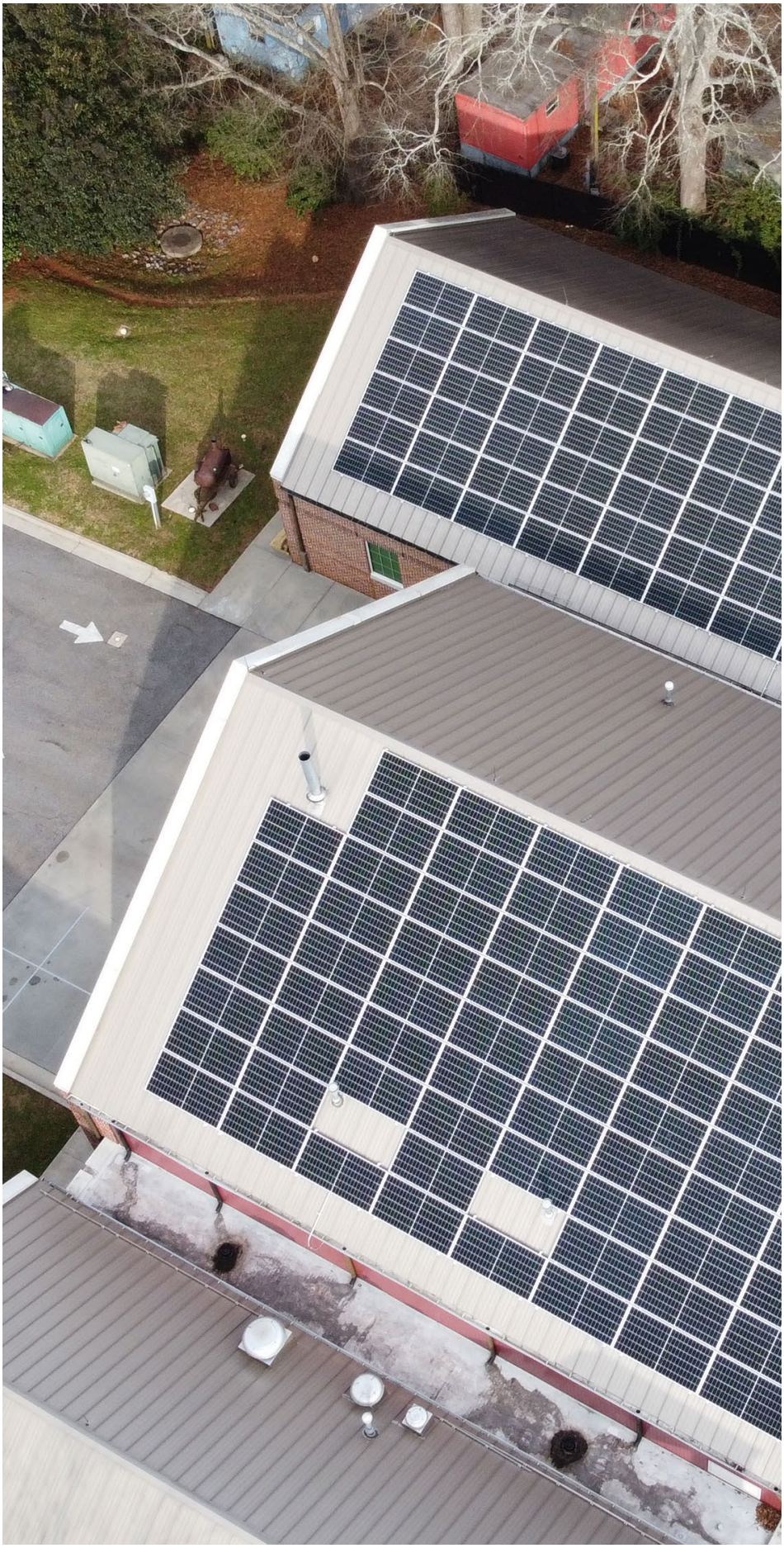
The Resolution states that “clean” sources of energy do not create greenhouse gas emissions (GHGs) and “renewable” energy sources are those which can be replenished in a human timescale. These clean and renewable sources include increased energy efficiency, solar power, wind power, hydropower, energy storage, and Renewable Energy Credit (RECs), but explicitly do not include nuclear power, biomass, natural gas, or coal.

## Equity as Part of the Plan

In addition to committing to a clean and renewable energy transition, one of the foundational components of the plan is to ensure the fair inclusion and representation of traditionally marginalized and vulnerable individuals and populations. The Resolution set the inclusion of lower-income, Black, POC, and senior communities as a priority through the development of policies and programs to decrease their energy burden using sustainable and renewable technologies and encouraging their participation in the clean energy workforce.[43]

Actions developed because of this plan will seek to enable individuals and communities to understand and leverage opportunities to achieve a clean energy future for all Athenians.

SOLAR PANELS ON FIRE STATION 4



# chapter four

# Community Engagement

## Creating a Community Advisory Board (CAB)

After the resolution was adopted, the Mayor appointed a Community Advisory Board (CAB) to represent a diverse cross-section of the Athens-Clarke County community, facilitate involvement with diverse groups and individuals, and help with the creation of a comprehensive approach to a clean energy transition that involves the entire community. CAB members represent groups and individuals involved in local businesses, non-profits, educational institutions, and community organizations, and include:

### Athens-Clarke County Community Advisory Board (CAB)

- 100% Athens
- Action Inc.
- Athens Housing Authority
- Athens Technical College
- East Athens Development Corporation
- W&A Engineering
- Athens Area Homebuilders Association
- Athens Land Trust
- ACCGov Sustainability Office
- Athens U.S. Green Building Council
- NEGA Business Alliance

**DEFINITIONS & ABBREVIATIONS**

**Charrette** — An interactive meeting during which individuals learn different topics and break out into project teams. Each project team shares its work, receives feedback, and identifies priorities and creative solutions.

CAB members have been extensively involved throughout the planning process with primary responsibilities to:

- Represent the interests of their constituencies
- Review the development of the Athens ACES 100% Clean Energy Future Tool
- Review and inform the public engagement strategy
- Attend public engagement meetings
- Work with the Project Team to prioritize recommendations within the plan
- Review and inform the development of plan drafts and the final plan
- Volunteer to help with educational events to inform the public about the draft plan
- Advise the Mayor and Commission on the development and adoption of the plan

In addition to the CAB, experts from within ACCGov were included and actively engaged in the planning process. Participating local government departments included Central Services, Economic Development, Geographic Information Office, Housing and Community Development, Public Information Office, and the Office of Inclusion serving in an ex officio capacity. In addition, when topics or questions arose that needed additional input, local subject matter experts and community leaders were recruited helping to define key action items for transitioning to clean energy.

MLK DAY OF SERVICE VOLUNTEER PLANTING A TREE

## Engaging With the Community

Transitioning to a clean and renewable energy future requires involvement and input from the entire community. Toward this end, a strategy was developed involving multiple instruments and methods designed to reach diverse audiences. This process included a special focus on engaging community organizations and members who have not traditionally been included or involved in community planning.

During the community engagement planning process, it became apparent that the key component of education was missing. To maximize public engagement, there must be a shared sense of understanding and relevance, a sense that the transition is important and attainable, and that each person can contribute to the change. To achieve this there also must be a basic understanding of the energy ecosystem and the vocabulary used to describe this system.

To meet this need, a series of five educational modules have been developed. These were used as training material for the CAB and made available to all participants and the general public throughout the public engagement process. This series can be found on the ACCGov Sustainability Website.

**Topics include:**

- Clean Energy 101
- Efficiency in the Built Environment
- Energy Systems and Green Policy
- Energy Burden and Housing Inequality
- The Role of Green Practices (Greenscaping)

The engagement process began in Fall 2019 and concluded in Fall 2021. Though initially designed to be in-person meetings, programs, and activities, the onset of COVID-19 restrictions required these activities to shift to a completely untested and novel approach—entirely virtual.

More information is available at https://www.accgov.com/9823/Educational-Series

With input from the Community Advisory Board (CAB), the Sustainability Office:

- In partnership with the ACCGov Economic Development Department, created an index of 90 community organizations and more than 37 business and industry leaders who were invited to participate in listening sessions, town halls, and intense, multi-disciplinary workshops (charrettes) to make sure diverse voices were included

- Conducted 4 listening sessions with area electric utility providers

- Conducted more than 59 listening sessions with CAB members, organizations, businesses, agencies, elected officials, and individuals where information was gathered and themes summarized

In addition to the group and individual meetings indicated above, two additional virtual formats were utilized to reach as many members of the community as possible. These included:

- The Clean and Renewable Energy Charrettes (3 charrettes seeking input from the 90 community organizations)

- A supplemental charrette focused on equity that took place in March, 2022

- The Clean and Renewable Energy Town Hall Meetings (5 town halls seeking community/public input)

These meetings were held at different times of day and different days of the week, including Saturdays, in an effort to accommodate as many participants as possible.

Two different surveys were developed to reach as many people in the community as possible. These included:

- A Community-Focused Survey that was distributed and collected at all charrettes and town hall meetings. It was also disseminated to the community via the media campaign described below. The survey results can be found on the ACCGov ArcGis page.

- A Business-Focused Survey distributed via all contacted businesses, the Athens Area Chamber of Commerce, Northeast Georgia Black Chamber of Commerce, Athens Manufacturers Roundtable, East Athens Business Leaders Association, Minority Business and Nonprofit Association, Athens Downtown Development Authority, CAB member list serves, and other business contacts. The survey results can be found on the ACCGov ArcGis page

Notes were taken and summaries were created at the end of each of the engagement sessions and consolidated into themes that appear in *Appendix 1 — Detailed Community Outreach and Engagement Initiative*. Information, recordings, education modules, minutes, and other documents generated during the Clean and Renewable campaign are available via the ACCGov Sustainability Office Website. All events and public meetings were live-streamed and/or recorded for viewing on YouTube, and links are included on the ACCGov website.

Throughout the public engagement process, a media campaign was also underway that included information, flyers, materials, and public service announcements that were disseminated via multiple websites, social media, radio and print media, organization/partner listservs, CAB membership lists, ACCGov Commissioner newsletters, word-of-mouth, and flyers put up by volunteers. Notices and information were also distributed to those who indicated an interest via email, phone calls, personal contacts, and available sign-up sheets. Invitations and requests to share event dates were sent to every organization in the database developed during the 18-month process.

## Identified Priorities

Collaborating with diverse, local stakeholders like neighborhood representatives, non-governmental organizations, government agencies, utilities, and businesses allowed for a fuller understanding of the logistics required for a large-scale clean energy transition. During the process, shared themes emerged, including the following priorities:

- Ensuring that all residents can access the benefits of clean energy in their homes and community
- Protecting both the built and natural communities in Athens from the effects of climate change
- Creating a wide variety of local job opportunities within the energy and building sectors
- Providing resources to support residents and local businesses in achieving this transition

Reflecting the goals of the Resolution, input through the community engagement process shaped the values, goals, and initiatives developed as part of the Clean & Renewable Energy Action Plan. Outcomes from this process highlight the community's strong support of Mayor and Commission goals and the need to transition to clean, renewable energy in an equitable and effective way that protects the environment and improves the health and well-being of all members of the community.

## Challenges and Reflections on the Stakeholder Engagement Process During a Worldwide Pandemic

The Clean and Renewable Energy Action Plan is one of the most ambitious initiatives undertaken by the Mayor and Commission. Developing a framework for an action plan, set to continue for decades and include diverse communities, non-profits, businesses, multiple government departments, and community partners is challenging. Also ensuring it is comprehensive, inclusive, and relevant to the entire community is critical and makes the task even more challenging. Undertaking this task while in the middle of the COVID-19 pandemic required creation of new strategies and novel approaches to communication and use of technology. The pandemic dramatically altered how people were able to interact and also significantly affected budget and staff capacity. These unprecedented limitations and constraints created unique challenges and constant adjustments to the community engagement plan.

Initiating and maintaining broad-based community engagement in a virtual format inevitably affected community participation. People had to adjust to the loss of in-person communication while learning to communicate in completely new ways. This was especially challenging for those without adequate hardware, software, and connectivity resources and those less technologically savvy. This constraint could have disproportionately affected the participation of disadvantaged neighborhoods or households whose ability to access online information or participate in virtual meetings may have been constrained by a variety of factors, including economic and geographic. Further, the entire community was also struggling with the emotional and psychological effects of the pandemic itself, and many were, we can be certain, dealing with family, health, or financial concerns that took precedence over everything else. The onset of the pandemic requiring conversion to exclusive on-line engagement no doubt affected the level of community engagement. Due to these constraints, a fourth charrette with a focus of understanding the equity issues in Athens was held in the Spring of 2022.

For complete details on the public engagement process, challenges, outcomes, and the findings associated with each engagement strategy, please refer to *Appendix 1 — Detailed Community Outreach and Engagement Initiative* in this document.

## Moving Forward

The Clean and Renewable Energy Action Plan is intended to be a living, breathing document with the flexibility to adapt to changing local conditions and to ensure that all Athenians are included in the transition to a clean and renewable energy future. Success will require continued and sustained engagement and feedback from all community members. It is especially important to ensure that traditionally marginalized people and communities are included in the process since these vulnerable populations will be significantly affected by the environmental consequences of climate change. The community engagement process was founded on reaching out, listening, and building trust by ensuring diverse voices were incorporated. This process must be continued and built upon as the plan moves forward. Strong working relationships between ACCGov staff, community leaders, and grassroots organizations will be key elements in keeping the entire community actively engaged.

MLK DAY OF SERVICE KICKOFF

# chapter five

# DEFINITIONS & ABBREVIATIONS

**ACCGov** — Unified Government of Athens-Clarke County

**ACES** — Advanced Clean Energy Scenario model that forecasts clean energy decisions in the form of new jobs, public health benefits, energy bill reduction, and reduction in greenhouse gas emissions.

**ATHENIA** — A machine learning tool that provides hourly electricity demand and supply forecasts for the Athens energy grid.

**BAU** — Business-As-Usual

**CAB** — Community Advisory Board

**$CO_2$** — Carbon Dioxide

**CRP** — Clean and Renewable Energy Action Plan

**EES** — Economically Efficient Scenario

**EV** — Electric Vehicle

**IPCC** — Intergovernmental Panel on Climate Change

**IRP** — Integrated Resource Plan

**LED** — Light-Emitting Diode

**MAX** — Maximum Clean Energy Potential Scenarios

**MMT** — Metric Tons

**MW** — Megawatt

**$NH_3$** — Ammonia

**NOx** — Nitrogen Oxides

**$PM_{2.5}$** — Fine Particles

**$PM_{10}$** — Particulate Matter

**PSC** — Georgia Public Service Commission

**REC** — Renewable Energy Credit

**$SO_2$** — Sulfur Dioxide

**VOCs** — Volatile Organic Compounds

# Evaluating Energy Options & Scenarios

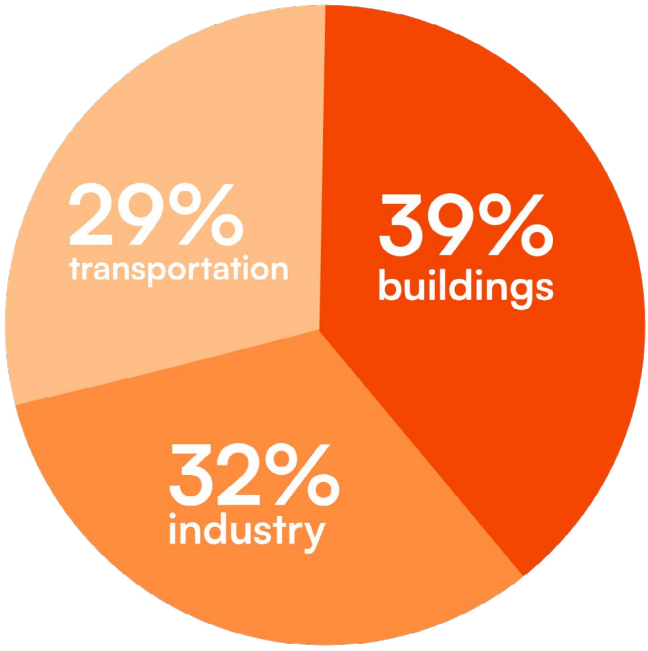
## How Energy is Currently Used in Athens

A transition to clean energy can be achieved by producing energy through clean or renewable sources or by reducing the amount of energy needed through increased efficiency. A successful transition to clean and renewable energy requires both. In Athens, energy is consumed through three major sectors of the community: transportation, industry, and buildings and building systems. Each of these consumes roughly one-third, with the buildings and building systems consuming a slightly higher percentage. See Figure 5.1.

As the greatest consumers of energy, buildings are the highest carbon emitters. Low-performing buildings often provide the greatest opportunity for improvements and represent significant potential opportunities for reducing energy consumption. Energy efficiency in transportation, industry, and buildings must play a role in making a clean energy transition. Increased efficiency lowers environmental impacts, decreases energy and water consumption, lowers utility bills, generates higher-paying jobs, and creates a healthier community.

Efficiency technologies diminish the costs associated with fossil-fueled electricity generation and transmission infrastructure by reducing the community's overall energy consumption.[44] If energy efficiency is not a priority, it will be more difficult for the community to reach clean and renewable energy goals, and overall energy costs will increase. Both outcomes will affect the entire community, but they will have a disproportionate impact on lower-income individuals and communities.

**Figure 5.1**
Energy Consumed by Sector
Source: Greenlink Analytics. (2022).




## Energy Production and Efficiency - Business-As-Usual (BAU)

The CRP creates a framework for community-wide changes resulting from thoughtful consideration, planning, extensive community involvement, and purpose-driven policies. Without such a framework and a corresponding sustained commitment, the community is most likely to follow a Business-As-Usual (BAU) scenario.

Not only will following the BAU fail to address the negative effects of climate change on our community, it will continue to ignore opportunities to improve public health. The projections in Figures 5.2 and 5.3 show this scenario relying heavily on an energy mix composed primarily of fossil fuels—sources of energy that generally have the greatest impact on lower-income and marginalized communities that live near fossil fuel plants.[45] In addition, continuing with the BAU scenario will widen the energy burden and opportunity gaps between populations with higher income levels and traditionally marginalized populations of our community.

An example of this disparity exists in the installation of solar technology. Solar power generation is expected to increase even if the community continues under the BAU scenario. The installation of solar panels can reduce a household's energy cost. Greater availability will allow more people to purchase these systems, thereby reducing the cost to purchase and install solar panels. Additionally, advancing technology will increase the amount of energy produced. Thus, the people who have access to the financial resources required to take advantage of this option—primarily higher-income households—will be increasing solar power generation and reducing their own energy costs. But for many middle- and almost all lower-income homes, this type of clean energy transition will be difficult or impossible to

**Figure 5.2**
Energy Mix in Athens' Electric Power Sector in 2035 in a Business-as-Usual Scenario
Source: Greenlink Analytics. (2019).

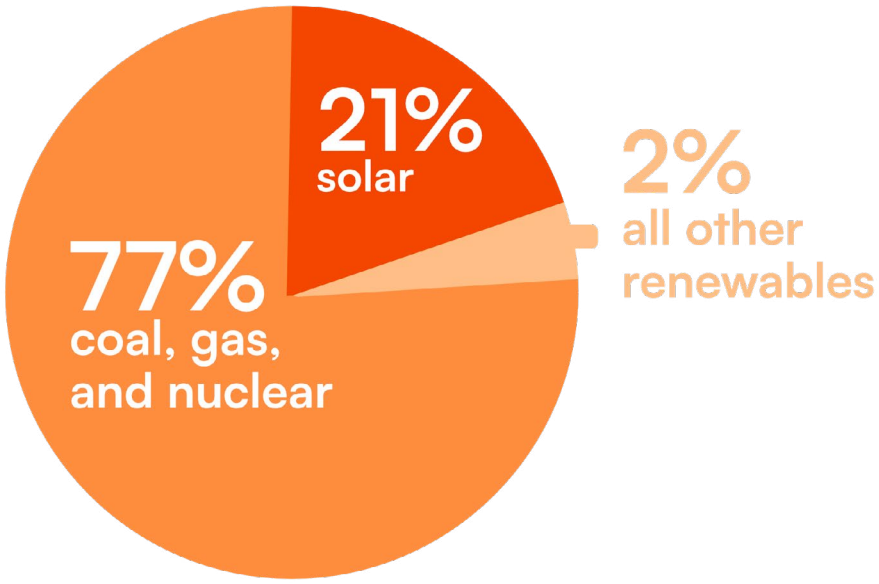
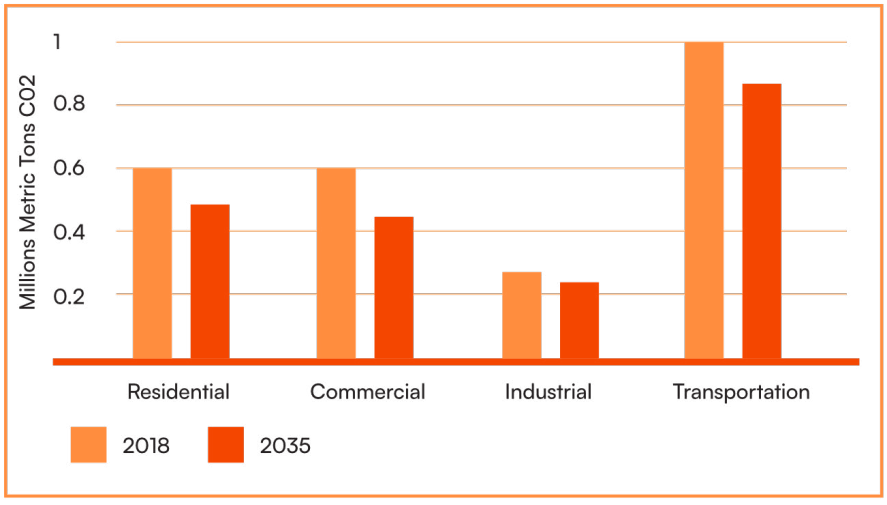



**Figure 5.3**
Business-as-Usual Emissions through 2035
Source: Greenlink Analytics. (2019).



access or afford. Little to no new energy efficiency investments are provided by Georgia Power within the BAU scenario (as Georgia Power generally only seeks approval for three years of programming at a time and continued programming is not guaranteed), thereby, providing few energy savings options for lower-income households.

Following the BAU scenario will also do little to reduce greenhouse gas emissions. According to the Intergovernmental Panel on Climate Change (IPCC), the 2010 levels of global emissions need to be reduced by 45% by 2030 and must reach net-zero by 2050 to mitigate the most consequential impacts of climate change.[46] Through the BAU pathway, residential and commercial emissions will only decrease by roughly 20% by 2035 (Figure 5.3).

As discussed in Chapter 3, a significant majority of the energy consumed in the Athens community is provided by Georgia Power. This projection incorporates the growth in renewable energy that was approved in Georgia Power's 2019 Integrated Resource Plan (IRP). Georgia Power's IRP is negotiated every three years and outlines how the utility foresees the need of specific resources to meet future energy demand. Decisions are driven by evaluations and debates of cost-effectiveness, how many generating units (e.g., coal-burning plants) need to be retired, and the deployment of demand-side management, such as energy efficiency programs. This planning document goes through a complex legal process—expert witnesses and community members go before the Public Service Commission (PSC) to inform the Commission of their needs before Georgia Power's proposed plan is approved, modified, or rejected. Historically, clean energy has been chronically and consistently underinvested through this process due to a bias in favor of fossil fuel resources in Georgia Power's planning approach. As Figure 5.4 shows, under the BAU scenario, the Athens community can expect a 6% increase in electricity demand by 2035. Improving efficiency in transportation, industry, and buildings can have a significant impact on the clean energy transition by reducing the overall need for energy. Unlike other fuel mixes that are approved for 20 years, energy efficiency programming is not approved for more than three years within the IRP, so it does not play a role in Georgia Power's plan to meet the energy needs of the Athens community in 2035.

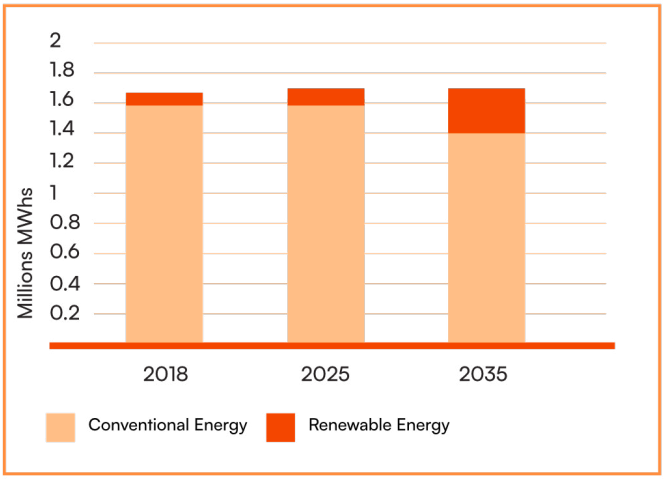
Naturally occurring investments in energy efficiency from assumed customer behavior (e.g., purchasing energy efficient appliances and vehicles) are assumed within the BAU scenario, but as can be seen in Figure 5.4, these impacts are extremely minimal. Energy efficiency is an extremely important requirement of an equitable energy transition. Relying on the BAU scenario, and therefore not investing in energy efficiency, is not only a missed opportunity for higher levels of clean energy production, but it also makes it more difficult for lower-income households to take advantage of energy bill savings.

## Demand-Side Management

Demand Side Management programs are designed to save energy and avoid the need to produce energy through engaging energy users. These programs traditionally focus on increasing energy efficiency, engaging users in demand response (decreasing a customer's consumption during stressful times on the grid), or distributed energy resource management.

Such programs are often impactful during "peak hours". Peak hours are times during which demand for energy reaches high levels, commonly driven by households and businesses consuming energy at the same time (e.g., during mid-afternoon in the summer when air conditioners are working hard to cool homes and businesses.)

**Figure 5.4**
How Electricity Demand in Athens is Met Over Time in the BAU Scenario
Source: Greenlink Analytics. (2019).




Rates of homeownership versus renting also play a significant role in how energy efficiency programming and planning affect the BAU in Athens. In 2019, 48% of households in Athens were renting, compared to the 36% in Georgia and Nationally.[47] In Athens, college students and those without the financial resources to purchase a home are the most likely to be renters. This includes many seniors, Black, POC, and other traditionally marginalized communities. Because they do not own their home or may not reside there long enough to reap the benefits, renters will rarely invest in energy efficiency.[48,49] During the community engagement process, the dual concerns also emerged that:

1. There is little incentive for landlords to invest in energy efficiency because they do not pay the energy bill
2. Landlords may increase the rent if they do invest in energy efficiency improvements

The problem of these missed savings and the landlord-tenant split incentive have been compounded by Georgia Power's and surrounding utility's focus on single-family, owner-occupied homes in their current energy efficiency programming.

The public health benefits that result from reducing emissions are also lost when a BAU approach is taken. Burning fossil fuels to produce energy leads to harmful emissions that increase the likelihood that people of all ages will develop respiratory ailments that can lead to a decreased quality of life.[50] As previously discussed, this cause-and-effect scenario is particularly prevalent in lower-income neighborhoods, which tend to have higher rates of asthma and other respiratory illnesses. If nothing is done to curtail fossil fuel energy generation and the accompanying emissions, these adverse health outcomes are not expected to improve significantly. Although not specifically included in the BAU projections, the additional effects of higher CO2 emissions and the damage from climate change further emphasize the need to pursue an equitable transition to clean and renewable energy. It is important for the entire community, but particularly so for Black, POC, and other traditionally marginalized communities.

ACCGov and the community need to pursue a variety of approaches to reduce consumption through energy efficiency and increase production from renewable energy sources. Exploring different clean and renewable energy scenarios can expose the tradeoffs associated with each policy approach and can help prioritize investments in communities and individuals who need the most assistance. Mitigating the effects of climate change and improving the lives of those most in need is not accomplished by taking a BAU approach. An equitable transition to a clean and renewable energy future should ensure that no segment of our community is left behind.

## Evaluating Options Using Data — the ACES Tool

The Advanced Clean Energy Scenario (ACES) tool uses Greenlink Analytics' machine learning model, ATHENIA, which provides hourly electricity demand and supply forecasts for the Athens energy grid. To forecast the electricity supply from the power plants that supply the Athens community, complex operational characteristics were included to train the model. Fuel prices, generation cost, historical plant operations, and projections in electricity supply and demand were variables used to help accurately represent the local power supply. Once ATHENIA was trained and validated, it was used to create a

"digital twin" of the power system that could be adjusted to predict the resource mix most likely to meet ACC's energy needs under different conditions.

Through this sophisticated modeling, ACES explored the local economic and social impacts of various clean energy scenarios. These scenarios have been used to identify varying avenues to achieve 100% clean and renewable energy depending on which community values and priorities were evaluated. The clean energy scenarios helped frame ACCGov's clean energy goals and involved careful evaluation of the effects of utilizing different technologies on monetary savings and costs, societal and environmental impacts, and economic development. For example, choosing to invest in rooftop solar in higher-income neighborhoods may decrease the carbon emissions released from burning fossil fuels—the desired outcome of this Plan—but may be more costly than investments in home energy efficiency in lower-income neighborhoods and may create a larger gap and greater inequity between the two. Finding the right balance of resources that will accommodate the diverse needs of the Athens community is crucial in making the transition to a clean and equitable energy future.

## Using the ACES Tool

ACES is used to explore different combinations of energy resource choices and how these different combinations lead to various costs, benefits, job creation, energy burden, and public health benefit outcomes. Users of the ACES tool provide their chosen levels of clean energy potentials, or "inputs." Some questions that aided in the construction of the ACES scenarios for Athens included:

- How much does the community prioritize equity, economic development, public health, and cost-effectiveness?
- Given these priorities, what level of effort should go into pursuing the energy efficiency potential of residential and commercial buildings?
- What levels of rooftop solar, land-based wind, and other renewables are cost-effective and technically feasible to deploy?
- Does ACCGov want to purchase renewable energy credits (RECs) to offset ACCGov's energy load?
- How much local government electric vehicle (EV) adoption or investment in public transit options should ACCGov choose to reduce transportation emissions?

The answers to these questions helped determine the potential for each clean energy resource that ACCGov can pursue. ACES imposes limitations and boundaries for each resource to ensure that each scenario is technically achievable and cost-effective. Each resource was assessed in light of technology improvements, industry-backed forecasts, Athens-specific observed adoption behaviors, and price effects—the effect of market prices on consumer demand.

### The resources considered included:

- Residential Energy Efficiency
- Commercial Energy Efficiency
- Industrial Energy Efficiency
- Residential Rooftop Solar
- Commercial Rooftop Solar
- Community Solar and Utility-Scale Solar
- Utility-Scale Wind
- Residential Battery Storage
- Commercial Battery Storage
- Light-Duty Electric Vehicle Adoption
- Transit Bus Electrification
- Renewable Energy Credits

The types of outputs that were produced for each clean energy scenario are set out in Table 5.5 on the next page.

## The Role of Community Engagement in Developing Clean Energy Scenarios

Over the course of several months, the CAB and community stakeholders discussed the available and cost-effective clean and renewable energy choices and evaluated various strategies and policy options for making this transition. This chapter outlines two preferred clean energy scenarios that ACCGov can use to reach its goal of 100% clean and renewable energy by 2035. The involvement of the CAB and community feedback from numerous stakeholder groups were critical in developing these two scenarios. This rigorous community engagement process included extensive discussions about climate change and its impact on traditionally marginalized and vulnerable communities to generate priorities with a focus on equity. These scenarios define clean and renewable energy options, including costs and benefits from different amounts of energy efficiency, solar, energy storage, renewable energy credits (RECs), and imported wind-generated energy.

**Table 5.5**
Outputs from the Advanced Clean Energy Scenario (ACES) Modeling Tool
Source: Greenlink Analytics. (2022).

| TERM | DEFINITION |
|---|---|
| **Total Investment** | The total cost of pursuing a particular scenario. |
| **Total Benefits** | The financial and economic benefits resulting from a particular scenario. These include energy savings and emissions reductions. |
| **Net Benefits** | The Total Benefits minus the Total Investments. |
| **Benefit Cost Ratio** | The present value of all monetized benefits divided by the present value of the costs. A ratio greater than "1" is considered "cost-effective". |
| **Bill Impacts** | ACES determines the utility costs for each clean energy resource (i.e., building efficiency, solar, wind, etc.) and provides rate and bill impacts<br><br>These impacts are divided into participants and non-participants, where the former are direct beneficiaries of clean energy investments in the selected scenario while the latter are not. This metric is one way to assess the impact of program access in a scenario |
| **Economic Development Impacts** | The Athens community-specific economic development impacts, including (but not limited to) net job creation and changes in household income. |
| **Energy Burden** | The difference in energy burden from 2018 to 2035 (the anticipated percentage of community residents' income spent on energy bills in 2035). |
| **Public Health** | The anticipated health and welfare savings related to reduced emissions of NOx, $SO_2$, $PM_{10}$, $PM_{2.5}$, $NH_3$, VOCs, and $CO_2$ |

## Possible Scenarios for Athens

The clean energy priorities of residents, non-profits, government agencies, community organizations, business owners, industry leaders, and others were generated from the input provided during the extensive public engagement initiative outlined in Chapter 4. The two preferred clean energy scenarios set out below describe two different approaches for the Athens community to achieve its clean and renewable energy goals. The Economically Effective Scenario (EES) and the Maximum Clean Energy Potential Scenarios (MAX) are based on local, state, and federal policies as of 2020. These scenarios and the Policy Pathways that arose from these scenarios will need to be periodically revised as policies, programs, and regulations change.

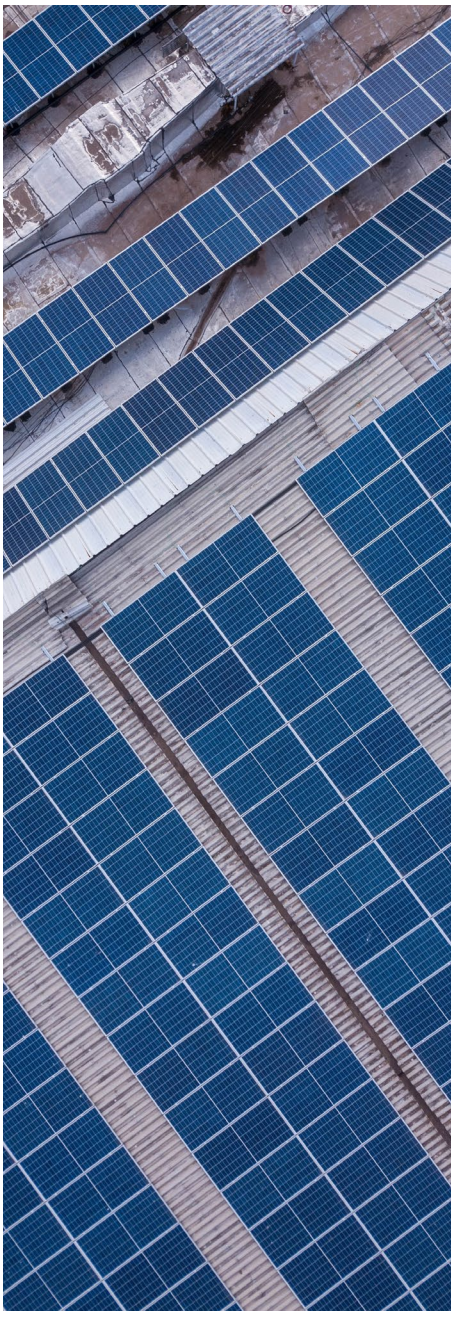
- The EES provides the highest cost-to-benefit ratio, reflecting community concerns about keeping costs low for residents and business owners.

- In contrast, the MAX scenario offers the highest level of benefits through savings, health benefits, and a healthier environment.

Table 5.6 outlines the costs and benefits of the EES and MAX scenarios compared to the BAU scenario. These choices are not definitive; rather, they are intended to serve as a range for policy and funding opportunities. For example, ACCGov may choose to embrace a smaller amount of rooftop solar potential today but increase that value in the future if political or financial circumstances change.

The EES contains a mix of solar, energy efficiency, battery, and transportation efforts that return the highest benefit-to cost-ratio for the Athens community. In this scenario, residential households received the highest investments toward energy efficiency, (equivalent to 11,000 homes cutting their electricity use by half), and rooftop solar (equivalent to 7,500 homes adding rooftop solar). This scenario also provides enough rooftop solar for 600 commercial buildings, with 20% of those coupled with battery storage. Benefits include residential electric, natural gas, and gasoline bill savings;  reduced climate-related damages such as flooding and increased temperatures; and the estimated public health savings. If implemented, the EES scenario is projected to generate $212 million in household bill savings and $144 million in public health savings for the Athens community by 2035. Anticipated job creation through energy efficiency and solar investments is projected to be around 1,800 — equal to roughly 20% of the staff of the University of Georgia's workforce.

Alternatively, under the MAX scenario, ACCGov would aggressively pursue all available cost-effective clean energy opportunities. Under MAX, 16,000 homes (roughly 30% of the community's 2018 housing stock[51]) would install solar onto their rooftops by 2035. Residential energy burden would be expected to decrease by 1.3 percentage points, from a community average of 7.5 to 6.2% by 2035. This scenario would produce maximum benefits in terms of job creation, green infrastructure development, and improved energy equity. The MAX scenario also reduces greenhouse gas emissions more than any other scenario.



ROOFTOP SOLAR

**Table 5.6**
Outputs for BAU, EES, and MAX Scenarios

Source: Greenlink Analytics. (2022). ACES [Computer model].

| | BAU Scenario | EES Scenario | MAX Scenario |
|---|---|---|---|
| Cumulative Benefits | 0 | $2.2 billion | $3.8 billion |
| Cumulative Costs | 0 | $0.2 billion | $0.5 billion |
| Net Benefits | 0 | $2.0 billion | $3.3 billion |
| Benefit / Cost Ratio | N/A | 9.2 | 7.0 |
| ACC's Electricity Offset by Building Energy Efficiency | 0% | 19% | 40% |
| Utility Scale Solar Capacity (MW) | 248 | 206 | 143 |
| Residential Solar Capacity Installed (MW) | 0 | 2.1 | 2.6 |
| Commercial Solar Capacity Installed (MW) | 0 | 6 | 32 |
| Electric Vehicles as a percent of Light-duty Vehicles | 2% | 44% | 44% |
| Energy Burden | 7.5% | 6.6% | 6.2% |
| Jobs Created | 0 | 7,170 | 11,400 |
| C02 Reduced (MMT) | 0 | 3.9 MMT | 6.7 MMT |
| Income Increased | 0 | $1.0 million | $1.6 billion |
| Public Health Savings | 0 | $144 million | $305 million |
| **Household Bill Savings** | 0 | $212 million | $329 million |
| **Monthly Bill Savings (Participants)** | 0 | $745 | $1,049 |
| **Monthly Bill Savings (Non-Participants)** | 0 | $64 | $102 |
| RECs Needed to Reach 100% by 2035 | 1.4 million | 1.0 million | 0.65 million |

**Table 5.7**
Energy Mix in the Athens Community Under EES Scenario
Source: Greenlink Analytics (2022) ACES [Computer Model]

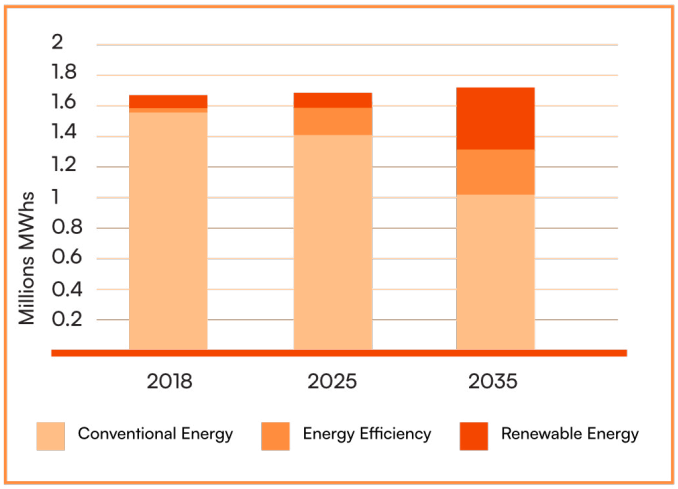
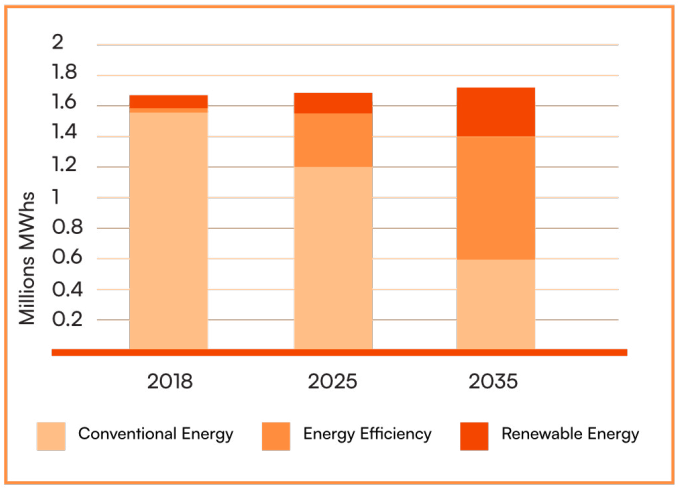



**Table 5.8**
Energy Mix in the Athens Community Under MAX Scenario
Source: Greenlink Analytics (2022) ACES [Computer Model]




The use of different types of energy in the EES is illustrated in Figure 5.7. Renewable energy and energy efficiency meet about 50% of the 2035 community energy demand. Figure 5.8 shows the energy mix projections for the Athens community under the MAX scenario. In the MAX, renewable energy and energy efficiency cover more of the energy demand in 2035 than in the EES scenario, but fossil fuel utilization will still be required in both scenarios without a change in state-regulated utility plans.

Even if the community invests as much as possible toward a clean and renewable energy portfolio, it will still need to purchase roughly 650,000 Renewable Energy Credits (RECs) to reach the goal of 100% clean and renewable energy by 2035. RECs are a good alternative for areas that cannot supply renewable energy on their own, but they may not mitigate the effects of greenhouse gases resulting from energy production to meet local demand, and they do not generate the other local benefits. Policies and actions focused on reducing energy consumption across the community's entire energy portfolio are essential if Athens is to come close to reaching its clean energy goals.

ACCGov has already begun the process of reducing electricity consumption through such initiatives as the LED Retrofit Lighting program for over 1,300 fixtures. However, continued work is needed to fulfill clean energy goals and realize the associated benefits.[52] The two scenarios outline a multitude of potential economic, equity, and health opportunities, goals that the Mayor and Commission hope to achieve:

- more jobs in clean and renewable energy
- reduced greenhouse gas emissions
- improved public health
- healthier ecosystems
- an economy and process that create equitable opportunities

The next step will be adopting policies, creating programs, and educating the community that will move Athens towards this future.

# chapter six

# Policy Pathways and Community-Wide Goals

**DEFINITIONS & ABBREVIATIONS**

**ACC** — Athens-Clarke County

**ACCGov** — Unified Government of Athens-Clarke County

**CAB** — Community Advisory Board

**CHP** — Combined Heat and Power

**EE** — Energy Efficiency

**EV** — Electric Vehicle

**GHG** — Greenhouse Gas

**IRP** — Integrated Resource Plan

**LED** — Light-Emitting Diode

**RE** — Renewable Energy

**REC** — Renewable Energy Credit

**RFP** — Request for Proposal

**RFQ** — Request for Quote

**SEPA** — Solar Energy Procurement Agreement

**SPLOST** — Special-Purpose Local-Option Sales Tax

## Policy Pathways

The two scenarios that model approaches for achieving 100% clean and renewable energy by 2035 are set out in Chapter 5. These demonstrate how ACCGov can transition to a future that provides clean and renewable energy to all community members by utilizing varying levels of solar, energy efficiency, energy storage, RECs, and transportation investments that will be needed for this transition. These scenarios consider traditionally marginalized and lower-income communities to ensure that all are included in the transition efforts.

Over the course of several months, ACCGov and CAB members conducted a comprehensive review of the different policies and actions that could be utilized to achieve the clean energy goals. This review led to the development of Policy Pathways—policy and program approaches to move towards a clean and renewable energy future. Information and feedback gathered from consultants, research, and the community engagement process were used to develop and define these Policy Pathways.

Each policy reviewed in the Policy Pathways system was categorized under four different areas of focus. These areas included:

### Buildings and Energy

Policies aimed at reducing energy consumption in residential, commercial, and municipal buildings through the use of energy efficiency, stricter building codes, and improved construction practices

### Community

Policies and programs geared toward improving the lives of Athenians through things like energy efficiency and solar-funded projects

### Environment

Environmental policies and programs such as increased tree canopy coverage to reduce the effects of the urban heat island effect—an effect that occurs when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality[53]

### Transportation

Policies with the intention of improving public transportation and electric vehicle adoption and charging

Each policy item was accompanied with a description of the policy and how it relates to Athens clean energy goals. The type of action (i.e. Financing, Informational, Programmatic) as well as the pros and cons of each policy were discussed among members of the CAB with ACCGov.

A table of each policy item discussed during this process can be found in Appendix 3: *Policy Toolkit Action Areas.*

## Policy Pathways and Equity

As part of a final review, ACCGov and the CAB participated in a workshop specifically intended to determine which policies to pursue using a tiered system focusing on equity. As part of the process, an equity scoring system was developed and applied to each pathway. The result was a scoring system that indicates how each policy would either promote equity, be neutral, or not promote equity (Table 6.1).

The equity score appears next to each policy pathway in Table 6.2, allowing consideration of how effective each will be in helping to achieve the Mayor and Commission's goal of prioritizing equity in the clean and renewable plan.

## Evaluating Policy Pathways — the Way Forward

As part of the review of the Policy Pathways, the consultant team used Greenlink's Clean Energy Policy Toolkit to help ACCGov and the CAB evaluate the potential for success. The consultant team generated a ranking system based on priorities indicated by ACCGov, the CAB, and community engagement input.

This evaluation process grouped the Policy Pathways into three tiers based on:

- priorities
- the potential for success
- community impact
- cost
- impact on equity

These three tiers are:

**Tier 1 — Most Urgent for Success (highest):** These pathways are relatively easy to implement and/or generate the highest climate and equity benefits. These can be implemented and tracked for success in the near future.

**Tier 2 — As Opportunities Present Themselves:** While sharing characteristics with Tier 1, these pathways are more difficult to implement in the short term. This may be due to a lack of available funding, inherent and complex legal and/or logistical challenges, or not having broad community support at this time.

**Tier 3 — Obstacles Ahead:** These pathways are the most difficult to implement because of financial or legal/regulatory barriers. Items ranked as Tier 3 will be revisited in the future, as policies or laws change.

Tier 1 Policy Pathways are set out below. Tier 2 and Tier 3 Policy Pathways appear in Appendix 3: Policy Pathway Tiers

## Policy Pathways — Tier 1

Table 6.2 sets out Tier 1 policies and programs. As previously discussed, consistent with the Mayor and Commission's focus on equity, an equity score of ±2 was assigned to each policy pathway. A score of "2" indicates that the selected policy or action could greatly improve equity in the process and outcome, while a score of "-2" indicates the policy will likely worsen equitable processes and outcomes.

**Table 6.1**
Policy Pathway Tier Equity Review Scoring Criteria
Source: Greenlink Analytics (2022)

| | |
|---|---|
| +2 | Very high impact on energy burden or equity related issues, likely to reduce inequity. |
| +1 | High impact on energy burden or equity related issues, potential reduce inequity. |
| 0 | No impact on energy burden or equity related issues. No potential to exacerbate equity or inequity. |
| -1 | Low impact on energy burden or equity related issues, potential to exacerbate inequity. |
| -2 | Very low impact on energy burden or equity related issues, likely to exacerbate inequity. |

# BUILDINGS AND ENERGY PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Financing | 2 | Revolving Clean Energy Loan Fund | Self-replenishing clean energy fund from the municipality or state. Typically applies to government properties only. | While not a revolving loan fund, the SPLOST allocation for clean energy improvements in ACC is a somewhat similar mechanism for creative financing of municipal energy projects. |
| Financing | 2 | Community Energy Fund | Fund consisting of percentage of franchise fees paid ACCGov by Georgia Power, to be used to fund community clean energy projects. | This is a great opportunity to fund clean energy projects, such as community solar, or increase investments toward energy efficiency. |
| Financing | -1 | Green Building Rebate for New Construction | Rebate proportional to performance level achieved. | ACCGov has a program to waive water/sewer interconnect fees for affordable housing. ACCGov could develop an incentive-based green building code that focuses on energy and water conservation. |
| Financing | 1 | Energy Storage Bulk Purchasing | Partner to reduce costs through bulk purchasing on energy storage equipment. | ACCGov has never bulk-purchased energy storage equipment but could be a key partner in any future partnerships due to scale of ACC properties. |
| Financing | -1 | Special Purpose Local Options Sales Tax | Explore an incremental sales tax that provides funding for capital efficiency and renewable expenditures. | ACCGov already has an active SPLOST in place for infrastructure projects with an allocation for muni CE projects. SPLOST funds aren't currently eligible for non-municipal projects. |
| Information | 0 | Audit Building Energy Use | Implement commercial building energy audit efforts. | No policy in place at this time but could be used to inform commercial building owners of their energy consumption and provide energy savings tips. |
| Information | 0 | Track, Publish and Review Municipal Energy Usage | Provide energy efficiency planning and design approaches for local government operations through benchmarking, transparency and auditing. | ACCGov currently benchmarks buildings in ENERGY STAR Portfolio Manager but has not yet disclosed energy performance publicly. |
| Programmatic | 0 | Bundled Clean Energy | Bundling energy efficiency (EE) financing along with renewable energy (RE). | This policy mechanism would streamline energy efficiency and renewable energy workloads so residents and business owners could see impactful results sooner. |
| Programmatic | 1 | Clean Energy Task Force | Establish a community clean energy task force to identify ongoing renewable energy opportunities and provide accountability to the clean energy goals. | The Community Advisory Board (CAB) already serves this function. The role of the CAB during the creation of the Clean Energy Plan was to guide policy leaders toward creating an equitable and actionable report. |

# BUILDINGS AND ENERGY PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Programmatic | 0 | Providing Solar Energy Procurement Agreement | A Solar Energy Procurment Agreement (SEPA) is a financial agreement in which a third-party solar developer owns, operates, and maintains a solar PV system. Users of the PV system enjoy the benefits of solar without providing upfront capital costs by paying the third-party owner a fixed rate of energy. | ACCGov could provide a service as a provider of SEPAs to interested members of the community. |
| Programmatic | 0 | Adopt targets for percentage of facilities equipped with energy storage | Set goals for on-site energy storage at municipal facilities. | Currently participating in GEFA assessment of solar plus storage opportunities. |
| Programmatic | 1 | Solar Co-op / Solarize Campaign | Group of homeowners within close proximity to each other obtain competitive solar installations through combined purchasing power. | ACC has undertaken successful Solarize campaigns in years past and can continue to do so in the future. |
| Regulatory | 0 | Benchmarking and Transparency Program | Create a benchmarking and transparency program for building energy and water efficiency.** | ACC currently benchmarks municipal buildings only. |
| Regulatory | 0 | Routine update of Sustainable Building Policy | Set a cycle for revisiting sustainable building policy for municipal buildings to allow for incorporation of new best practices in sustainable building design in municipal projects. | Sustainable Building Policy currently in place, a mechanism for revisiting over time should be considered. |
| Regulatory | 1 | Buildings Energy Code | Adopt a buildings code that requires new buildings to be more energy efficient than current state codes. | ACCGov has authority to regulate building codes. Working with building owners, the Athens community, and business leaders can ensure decisions are reached in an equitable way. |
| Regulatory | 1 | Update Building Energy Codes and Increase Code Enforcement | Increase energy efficiency in commercial buildings through updated energy codes and increased enforcement. | ACCGov has authority to regulate building codes. Working with building owners, the Athens community, and business leaders can ensure decisions are reached in an equitable way. |
| Regulatory | 1 | EV readiness ordinance | Law to require all new construction to be built to accommodate EV charging infrastructure for an identified percentage of parking spaces. | Not currently in place; will require amendments to ACC building codes and notification to Georgia Department of Community Affairs. |

** “Benchmarking” refers to when a building owner understands their current energy consumption to refer to as a baseline. “Transparency” refers to publishing their building’s energy performance so that other building owners can benchmark their progress against.

# BUILDINGS AND ENERGY PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Regulatory | 2 | Take active role in intervening and advocating in Georgia Power Integrated Resource Plan (IRP); pursuing policies to advance clean energy in the State Legislature | Engaging in state-level regulatory processes around energy generation and clean energy programming. | Athens-Clarke County intends on intervening in the next IRP in 2022 (IRPs take place on 3-year cycle). |
| Technology | 0 | Municipal Efficient Equipment Procurement Policy | Require that products that require the use of energy and are purchased by municipality meet efficient equipment standards. | Informal policy/best practices exist but no set procurement standard and specifications exist at this time |
| Technology | 0 | Install LED Streetlights and Traffic Signals | Invest in street and area lighting in order to improve municipal energy efficiency in cities. | Athens has already or plans to convert 90% of their street and area lighting to LED. |
| Technology | 0 | Improve Lighting in Municipal Buildings | Take advantage of savings opportunities through high-efficiency interior and exterior lighting solutions in municipal properties. | 80%+ of municipal buildings have been converted to LED |
| Technology | 1 | Advocate for microgrid policy change | Microgrids are self-sufficient energy systems that can cover smaller geographical footprints, such as college campuses or hospital grounds. | ACCGov can partner with the University of Georgia or local hospitals on the build out of microgrids. |

# COMMUNITY PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Financing | 1 | Incentives Education Programming | Promoting residential and business awareness of existing programs and opportunities. | ACC is hiring an Environmental Educator in coming months, as well as planning to update website. |
| Information | 1 | Community Engagement and Communication on Clean Energy Efforts | Ongoing outreach to keep the general public aware of progress towards sustainability goals, while continuing to receive community input. | The CAB will continue to meet and oversee progress and milestones to Clean and Renewable Energy goals. |
| Programmatic | 2 | Workforce Training Collaboration | Collaborate with technical colleges and trades to develop a clean energy workforce | This is an ongoing process that will require ACCGov, education leaders, and business owners awareness about emerging clean energy jobs and equitable transitions. |
| Programmatic | 2 | Clean Energy and Equity Planning | Ongoing outreach to keep the public aware of progress towards an energy efficient and equitable goal and to continue receiving citizen input | This is an ongoing effort. |
| Programmatic | 2 | Advance Apprenticeship Programs | Advance clean energy apprenticeship programs potentially through SPLOST procurement requirements. | This is an ongoing effort related the workforce training collaboration mentioned above. |
| Regulatory | 2 | Educational Programs targeted towards the business community | Provide education for the business community around clean energy practices, energy efficiency, and water reduction strategies | The Athens business community is a very important player in the clean and renewable energy transition. Ensuring that business owners are equipped with clean energy knowledge is extremely important to ACCGov. |

# ENVIRONMENT PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Financing | -1 | Identify LOCAL Renewable Energy Credit Procurement | Organized bulk purchases of credits for renewable energy generation. | Not currently in place. Could specifically reference a goal in the plan of not only using REC's, and prioritize local and state-level RECs. |
| Financing | 0 | Divestment of ACC Pension fund away from fossil fuel investements | Reallocate any ACCGov employee pension fund holdings connected to fossil fuels into alternative holdings, ideally investing in green energy. | Current holdings in fossil fuels are unknown. |
| Information | 0 | Update and Publish Greenhouse Gas Inventories | Create a streamlined way to update existing or new inventory for tracking greenhouse gas emissions | Athens currently tracks internally, however these values have not been published. |
| Information | 2 | Study of addressing water loss in high-loss meters (on ACCGov side of meter) | Pursue study of water meters to identify meters that have high-loss history | ACCGov can partner and work with the Athens Watershed Management department to develop these plans. |
| Technology | 1 | Improve Wastewater Energy Efficiency | Enhance GHG emission reduction strategies that local governments can reasonably employ; specifically energy efficiency in water and wastewater facilities. | Facility audits are currently underway in municipal buildings. |
| Technology | 0 | Expand Wastewater CHP | Use more combined heat and power (CHP) technology at wastewater plants | Not currently in place, however it is plausible at North Oconee water reclaimation facility. |
| Technology | 2 | Targeted heat island efforts for low-income and underserved communities | Pursue efforts to promote increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues | ACC has a Community Tree Council. ACCGov departments supported Priority Action of Envision Athens to inventory all county greenspace and ensure at least 20%+ of county land exists as protected greenspace. ACCGov inventory identified roughly 21% of greenspace under various forms of protection. |

# TRANSPORTATION PATHWAY | TABLE 6.2

| Action Areas | Equity Score | Action Area Name | Action Area Description | Athens Context |
|---|---|---|---|---|
| Financing | 2 | Public transit investments to expand service and increase passenger miles traveled | Improve public transit speed, reliability and user experience | Transit improvements are a regular focus of TSPLOST funds (TSPLOST 2018 Project # 2, 3, 4, 9). It is highly likely that TSPLOST 2023 will include further transit system improvements. |
| Programmatic | 1 | Decrease parking requirements | Boost ridership per transit vehicle around affected transit stations through density | Multi-modal Center is ACC's only major transit station. ACC Planning Commission makes recommendations to M&C and Planning Dept oversees enforcement |
| Programmatic | 2 | Implement high priority segments in the walking and bicycling network | Increase the amount of walking and biking infrastructure in order to reduce motorized trips | Athens in Motion Plan with priority matrix |
| Programmatic | 1 | EV education and incentives | Provide investments in electric vehicle education programs to increase the adoption of EV fleets | There are no planned investments at this time. |
| Programmatic | 0 | Expansion of landfill gas capture system | Restart practice of capturing landfill gas emissions to be used for transportation fuels | ACCGov had a program that has since ceased. Existing cells have been closed. |
| Regulatory | 0 | Expansion of landfill gas capture system<br>Fleet conversion goal for 100% completion by 2035, with differentiation between light duty fleet (cars), and medium/heavy duty fleet (haulers, waste trucks) | Create and adopt a goal to fully convert all municipal fleet vehicles to 100% electric | ACC 100% clean and renewable energy by 2050 goal includes conversion of vehicles but does not identify specific interim goals and milestones. |
| Technology | 0 | Electrify city fleets and buses | Electrify municipal internal combustion vehicles and buses | TSPLOST Proposal #25 (Electrify the Fleet) includes purchase of 47 light EV and 11 EV busses for municipal use plus charging infrastructure. |
| Technology | 1 | Ubiquitous EV charging infrastructure (especially target multi-family and low income) | Provide charging stations throughout the city to promote the adoption of electric vehicle sales | The Sustainability Office is exploring the creation of a ranking matrix for locating optimal EV charging locations within ACC. |
| Technology | 2 | Piggy-back on Athens in Motion and Greenway Network Plan | Utilize the identified goals and programs that are shared across all plans to reduce duplicating efforts and increase effectiveness and reach of the goals. | Shared goals are being identified. |

# chapter seven

# Economic and Work Force Development

**DEFINITIONS & ABBREVIATIONS**

**ACC** — Athens-Clarke County

**ACCA** — Athens Community Career Academy

**ACCGov** — Unified Government of Athens-Clarke County

**CTAE** — Career, Technical, and Agricultural Education

**GHG** — Greenhouse Gas

**HVAC** — Heating, Ventilation, and Air Conditioning

**PACE** — Property Assessed Clean Energy

## Engaging the Business Community Towards 100% Clean & Renewable Energy

In developing this plan, the Athens business community is a critically important group of stakeholders to engage as partners towards progress. The ACCGov Office of Sustainability partnered with ACCGov's Economic Development Department to host one-on-one, hour-long listening sessions with 31 business leaders representing 26 organizations from different sectors of business and nonprofits. Participating sectors included multifamily housing, hotels, gas stations and convenience stores, automobile dealerships, grocery stores, restaurants, breweries, and industrial facilities. Industrial leaders from these businesses were mindfully included to learn about their impacts of sustainability and energy efficiency-related efforts that they already have implemented, learn about their needs, and receive input and feedback toward developing this plan.

In addition to the listening sessions, an online, business-targeted survey was distributed in partnership with the Athens Area Chamber of Commerce, Athens Manufacturers Roundtable, Eastside Business Leaders Association, Minority Business and Nonprofit Association, and the Northeast Georgia Black Chamber of Commerce to gather feedback from community business participants.

From these important listening sessions, conversations, and survey responses, we heard several key themes from the business community:

1. **Sharing knowledge, information, and best practices is important.**
   Businesses would appreciate education and workshops to learn about technologies and methods to reduce energy consumption and what energy efficiency programs are provided by their utilities. They expressed wanting to reduce their consumption to decrease GHG emissions and were curious about the benefits of reduced energy costs. Many businesses expressed that they do not have the capacity or bandwidth to sift through information and cost data to identify the most cost-effective technologies and best practices. Multiple business leaders expressed interest in knowing what other local businesses and ACCGov are implementing as an opportunity to learn from their peers. Survey responses indicated that a majority of business

customers are not aware of existing energy-saving programs currently offered by their energy providers, and therefore education about how to take advantage of these program could yield very positive results.

2. **Clean and renewable energy implementation must make sense, economically.**
   While technology aimed at reducing energy consumption is advancing fairly rapidly and the costs for some technologies are shifting downwards, several businesses commented that, when previously evaluating solar feasibility for their properties, the return on investment did not make sense to move forward. Opportunities such as a Solarize campaign (or other bulk purchasing efforts) are necessary for businesses to participate in capital-intensive technology improvements.

3. **Leveraging public-private resources for implementation.**
   Businesses would appreciate pathways to leverage public and private resources towards up-front implementation costs, such as collective purchasing, rebates, subsidies, tax credits, and commercial PACE (Property Assessed Clean Energy) bonds. They would like to see ACCGov lead the way by demonstrating replicable clean and renewable energy best practices in its public buildings, facilities, and fleets.

4. **Businesses are willing to work towards 100% Clean & Renewable Energy efforts, but the majority do not support mandates.**
   The business leaders who participated in the one-on-one listening sessions and the online survey are overwhelmingly either "somewhat supportive" or "very supportive" of the 100% clean and renewable energy goal. They cautioned against local government mandates or penalties, especially those that may result in higher costs to their customers or that have a cost burden that hinders their expansion or growth.

5. **Communicating 100% Clean & Renewable Plan expectations, goals, and timeline is key to gaining business participation.**
   Many businesses participate in annual budgeting processes that require lead-time in making requests to corporate decision-makers for capital, technology, and equipment funding. Requests for energy efficiency and renewable technologies are often required one to several years in advance. Businesses that do not have specific budget planning timelines still must plan carefully in advance for expenditures and financial arrangements. Understanding what this plan will expect from businesses, and on what timeline, is critical to gaining their participation

6. **Planning and code-related ordinances related to solar.**
   Solar was a key technology mentioned during listening sessions and in online survey responses. Businesses requested guidance about where to put solar on a property in the instance that their rooftop cannot bear the weight of a solar installation.

## Workforce

Section 3 of the 100% Clean and Renewable Energy Resolution, approved by the ACCGov Mayor & Commission on May 21, 2019, resolves that efforts towards clean and renewable energy "...will work in a manner to redress historical inequities in our community by prioritizing resources to train and hire people from within marginalized communities to participate in the energy efficiency and renewable energy workforce, and by facilitating energy efficiency upgrades, opportunities for clean transportation, and renewable energy installations in lower-income communities."[54]

## Energy Efficiency and the Renewable Energy Workforce

Changes in economic development from a clean energy transition were estimated using IMPLAN, an input-output model that quantifies changes within an economy. Table 7.1 lists categories of jobs that are included in the energy efficiency and solar energy workforce. The values in the table reflect the number of job-years created or sustained (such as in the fossil fuel industry) for every $1 million invested into that industry. One job-year is defined as a full-time position held by one person for one year.

It is very important to note that many of the jobs shown in Table 7.1 already exist in ACC. The job-years shown in the table include existing jobs that

will simply develop or build upon existing occupational skills towards newer, more energy-efficient or renewable technologies through hands-on learning and the continuing education required for continued occupational licensing. For example, an existing licensed electrician or an HVAC technician will add to their existing skill sets by learning about new clean and renewable energy technologies. Some new job categories, such as solar panel technicians, may also be created with investment into clean and renewable energy technologies.

As businesses and households in the Athens community implement measures toward energy efficiency and reduce their energy bills, the savings will produce **"induced" job-years**. These job-years represent the ripple effect created across industries where those energy savings might be spent, such as services, equipment, advertising, retail, entertainment, or restaurants. For example, a business that saves $50 per month on their energy bill might invest those savings back into their business with marketing efforts, new equipment, facility improvements, or other needs.

**Table 7.1**
Job Years Created or Shifted for Each $1 Million Invested Into Energy Efficiency Improvements
Source: Greenlink Analytics. (2022).

| | JOB YEARS | AVERAGE SALARY |
|---|---|---|
| **Total Energy-Efficiency Related Jobs** | **9.2** | **$58,891** |
| Construction | 1.8 | $48,535 |
| HVAC&R | 1.8 | $64,750 |
| Water Heating | 0.5 | $53,127 |
| Lighting | 0.9 | $58,973 |
| Material for Envelope | 1.1 | $59,352 |
| Other Electrical Equipment | 0.5 | $68,624 |
| Energy & Environmental Management and Smart Controls | 1.4 | $58,626 |
| Insurance & Finance | 0.2 | $68,992 |
| Program Adminstration | 0.5 | $63,650 |
| Architecture & Engineering Services | 0.5 | $44,280 |
| **Total Solar Energy-Related Jobs** | **7.7** | **$57,727** |
| Construction | 2.3 | $49,873 |
| Hardware Manufacturing | 1.3 | $53,910 |
| Electrical Equipment | 1.3 | $71,538 |
| Electronic Components | 1.3 | $73,492 |
| Scientific and Technical Services | 1.3 | $60,056 |
| **Induced ("Ripple Effect") Jobs** | **6.8** | **$41,838** |
| **Power Generation** | **(-1)** | **$67,852** |

## Fostering Participation in the Energy Efficiency & Renewable Energy Workforce

As evidenced in Table 7.1, energy efficiency-related and solar energy-related jobs offer average wages that are higher than ACC's annual median household income due to the technical job skills required. Engaging members of marginalized communities in the energy efficiency and renewable energy workforce will require not only promoting the available opportunities, but also working to remove barriers and create pathways for people to equitably access training and job skill development opportunities. Some steps ACCGov can take to foster diverse participation in the energy efficiency and renewable energy workforce include the following:

### 1. Share key data with workforce training providers to align programs with high-demand skills

ACCGov has access to valuable occupational and workforce data that can be used to inform certain Clarke County School System programs. The Athens Community Career Academy (ACCA) and the Career, Technical, and Agricultural Education (CTAE) programs can benefit from quantitative data support from ACCGov. Athens Technical College and the Technical College System of Georgia also rely heavily on workforce data to understand which employment program offerings need to be made available for Athens students. Creating specific programs targeted toward high-demand skillsets will benefit students trying to find careers in clean and renewable energy fields.

### 2. Develop training pathways for ACCGov positions engaged in clean & renewable energy efforts

Athens-Clarke County Unified Government will utilize a number of clean and renewable energy technologies, including solar and electric vehicles, and will be in need of skilled employees to maintain these new technologies. Available training opportunities through the Clarke County School System and Athens Technical College can offer clean and renewable energy career opportunities community members who want to learn and develop needed skills. This could include:

- Funding Trainee positions within ACCGov departments that work with green technologies to attract and offer a "doorway" to community members who are interested in learning, but are not yet qualified with those job skills

- Funding the CCSD Great Promise Partnership and work-based learning internship positions within ACCGov departments for high school students who are interested in learning the skills needed for green energy career pathways

- Developing and funding potential mentor/trainer stipends that can be added to existing ACCGov technical positions for the stipend-supported positions to mentor and train other employees in skills needed for clean and renewable energy-related technologies

### 3. Partner to raise awareness, remove barriers, and increase access to high-demand clean & renewable energy job skills training programs

Jobs skills training to help community members develop high-demand skills for clean and renewable energy jobs are offered by both local and regional training organizations. ACCGov can help connect and increase access to training opportunities for members of marginalized communities in several keyways:

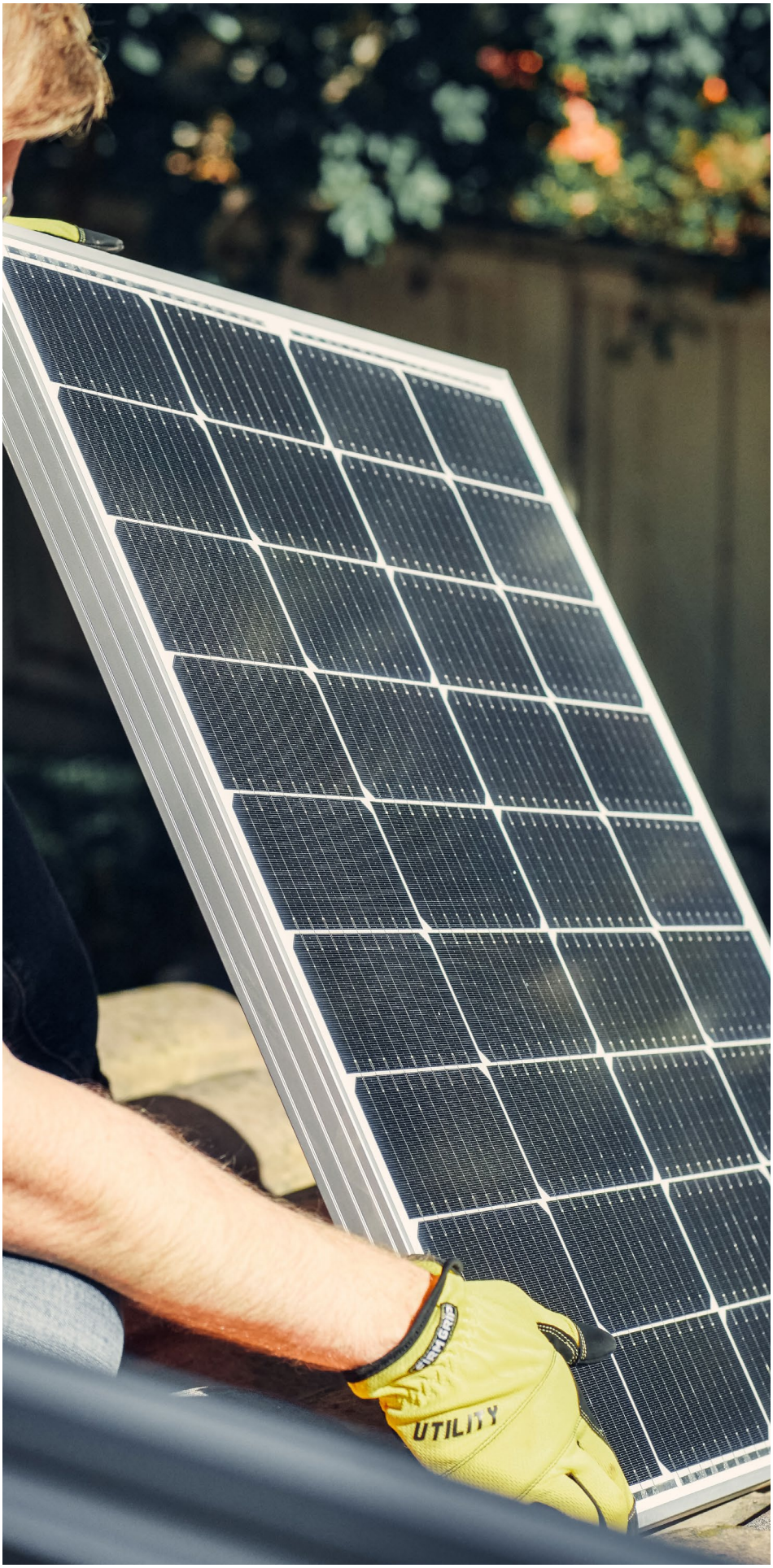
- ACCGov Office of Sustainability and Economic Development Department can partner to create an easy-to-access online listing of training providers, the classes they offer, and programs to help diverse community members develop the high-demand skills needed for clean and renewable energy-related careers.

- Develop diverse and strategic partnerships to share information broadly and inclusively about energy-related job skill training programs and supports throughout the community with a focus on underserved communities.

- ACCGov can partner with WorkSource Northeast Georgia, trade unions, and other technical training providers to offer class scholarship funds, childcare stipends, transportation stipends, cost-of-living stipends to cover rent/ utilities during the training courses, and funds for job-related tools and personal protective equipment to support access to high-demand clean and renewable energy-related skills training programs.

- Partner with trade organizations and technical training providers to offer continuing education credit-eligible courses on clean and renewable energy and energy efficiency topics for professionals in the construction industry, licensed electricians, sustainability managers, etc. Offer course scholarships to remove potential barriers to participation.

- ACCGov Office of Sustainability and Economic Development Department can partner to connect Clarke County School District ACCA & CTAE with local area employers who are willing to provide work-based learning internships for high school students interested in learning job skills need for energy-related careers.



# chapter eight

# Next Steps and Near-Term Recommendations

**DEFINITIONS & ABBREVIATIONS**

**ACC** — Athens-Clarke County

**ACCGov** — Unified Government of Athens-Clarke County

**CRP** — Clean and Renewable Energy Action Plan

**GHG** — Greenhouse Gas

**IRP** — Integrated Resource Plan

**LED** — Light-Emitting Diode

**LEED** — Leadership in Energy and Environmental Design

**SEPA** — Solar Energy Purchase Agreements

**SPLOST** — Special-Purpose Local-Option Sales Tax

**TSPLOST** — Transportation Special-Purpose Local-Option Sales Tax

## Continue Moving Forward — Examples of Initiatives Underway

While the CRP was being developed, ACCGov continued to move forward with initiatives that will help meet the clean energy goals outlined in this plan. Some examples include:

- The creation of a Community Energy Fund Policy—a policy that established standards and procedures to be followed in the partial reallocation of future utility franchise fee revenue—from the ACCGov General Fund to a unique project within the Special Programs Fund, for the purpose of financing community energy projects.
- Initiation of an ongoing program that has, to date, replaced approximately 80% of existing ACCGov building lighting with LED light bulbs. Each LED uses 75% less energy and can last 25 times longer than incandescent lighting.[55]
- Revision of the ACCGov's Sustainable Building Policy to include additions such as allowing a choice of using Green Globe and Earth Craft standards to be used along with LEED building certification standards. The policy also requires renovations and new construction to plan for, at a minimum, including solar and battery-ready systems and provisions for Electric Vehicle charging stations.
- Utilization of funds from the 2020 SPLOST Renewable Energy Project and grants:
  - Allocation of funding for additional rooftop solar projects, including a solar-plus-storage project at the Family Protection Center, Memorial Park, and the Athens Regional Library.
  - Allocation of funding for fully electric fleet vehicles, along with charging stations.
  - Allocation of funding toward the renovation of the Costa Building in downtown Athens, including rooftop solar and the installation of energy-efficient windows that meet historic restoration standards.
- The construction of a pump station and installation of several purple pipes to separate water recycled at reclamation facilities from other water infrastructure.

This reclaimed water will be a key non-potable resource for local industries, toilet flushing and cooling tower make up water. This was a result of ACCGov's commitment throughout 2021 to create a framework to reuse water to help maintain a reliable local water supply and mitigate the effects of future droughts on the community.

- Renovation planning for the Costa Building that includes upgrades to the facility's energy systems is currently underway. Proposed improvements include the installation of rooftop solar panels and energy-efficient windows.

- Inclusion, in the Transportation Special Local Options Sales Tax (TSPOST) program that will be voted on in a May 2022 referendum, of additional funding for the conversion of 10 transit buses and 19 fleet vehicles to electric vehicles, along with the addition of charging stations.

- Initiation of Solarize Athens 2.0, a community-based solar purchasing program that reduces the cost of solar panels for residents, businesses, and nonprofits using bulkpurchasing options.

- Continued development of ACCGov Solid Waste programs and services, including an Industry Sustainability Roundtable, with the goal of reducing the amount of waste being deposited into the landfill, including hard-to-recycle and toxic materials.

- Implementation of sustainability efforts by many area industries and businesses, as well as promotion of green building materials and equitable construction agencies like the Athens Land Trust, Habitat for Humanity, and the Athens Housing Authority.

## Specific Near-Term Action Step Recommendations

Once the CRP is approved, it will take time to develop detailed action steps and priorities, assign funding sources, and obtain approvals since all these steps will include public engagement to ensure inclusiveness and equity. As this process evolves, the need to address the causes of climate change will continue to grow. Using Tier 1 Policy Pathways as a starting point, the following are specific action step recommendations that, upon approval of the plan, could be pursued immediately. These near-term priorities are organized in six areas developed with the CAB:

- **Lead by example**
- **Build community though investment**
- **Be part of the larger solution**
- **Build a workforce and improve opportunities**
- **Community education and engagement**
- **Closing the gap**

## 1. Lead by example

ACCGov should lead in its facilities by maximizing efficiency and converting to renewable energy, including:

a. **Expand capacity to fund energy and green infrastructure programs** through grants, SPLOST, TSPLOST, donations, and other funding sources.

b. **Improve wastewater facility energy efficiency** through increased auditing and retrofitting. Processing wastewater uses a significant amount of energy and improving the efficiency of such facilities can enhance existing greenhouse gas (GHG) emission reduction strategies already in place.

c. **Public transit investments** to expand service and increase passenger miles traveled. This policy will focus on improving transit speed, reliability, and user experience by providing more routes and encouraging fewer individuals to travel by single-occupancy vehicles. Investments in public transit can also improve equity within ACC, as lower-income households will have improved transportation options within their community.

d. **Update ACC's building energy codes and increase code enforcement**. This will require that new buildings be more energy efficient than the current state codes require. Putting this type of policy into place will require ACCGov to provide contractors with education and incentives to meet new code requirements smoothly.

e. **Establish standards** for the administration and expenditure of funds, as they come available, from the **Clean Energy Fund.**

f. **Explore Energy Storage Bulk Purchasing.** This strategy utilizes economies of scale in battery storage, reducing costs for building owners who want to pair solar with storage. ACCGov has never bulk-purchased energy storage equipment, but could be a key partner in any future partnerships due to the scale of ACCGov municipal properties

g. **Research and, where appropriate, utilize Solar Energy Purchase Agreements (SEPA)** for municipal and commercial buildings with a goal of facilitating and assisting building owners interested in installing rooftop solar at no up-front cost.

## 2. Build community though investment

Programs that invest in traditionally marginalized communities are prioritized. Including:

a. **Coordinate and work with community groups, granting agencies and foundations, and local energy providers** to develop a process whereby **income-qualified homeowners can make basic home repairs** to allow them to participate in weatherization programs.

b. **Facilitate the expansion of weatherization programs for lower-income homeowners/residents** through established local agencies and energy providers.

c. Work with energy providers to develop a **Round-It-Up Energy Efficiency Program** to provide funding for lower-income energy efficiency retrofits by "rounding up" higher income participant utility bills to the nearest dollar.

d. **Expand green infrastructure, native habitat, and ecosystem service restoration and investments** to reduce energy use, mitigate climate change, and promote a more sustainable built and natural community.

## 3. Be part of the larger solution

Drive utility investment in clean and renewable energy through the Public Service Commission. Including:

a. **Intervention in the 2022 Integrated Resource Plan (IRP).** ACCGov will actively advocate for a policy to be included in the Georgia Power IRP that specifies that investments will be made in energy efficiency programming and clean and renewable energy that benefit lower-income households. This regulatory action will help ACCGov pursue policies to advance clean energy in the State legislature as well.

### 4. Build a workforce and improve opportunities

The skills needed for a clean and renewable energy industry have to be developed. Including:

a. **Ongoing partnerships** with local training resources, including labor organizations, that implement programs for traditionally marginalized communities to enter a clean and renewable energy workforce. Training should only be initiated upon development of successful and well-funded efficiency, weatherization, and solar panel installation programs.

b. **Explore educational programming for first responders and building officials** on energy storage, electric vehicles, and solar installations. New technology brings new complexities and dangers, of which first responders should be aware. ACCGov should provide resources and training to first responders on new complexities created by battery storage on home energy systems and vehicles that can create emergencies.

### 5. Community education and engagement

Building community understanding is key to developing enduring support for initiatives. Including:

a. **Initiate, coordinate, and facilitate educational programming** to promote awareness of existing programs and opportunities available to Athens residents and business owners. The Sustainability Office will assist with opportunities addressing topics like energy efficiency programming, energy assistance, and Solarize campaigns, as well as those that promote green infrastructure and conservation of ecological systems.

b. **Adopt a Benchmarking Program** for energy and water use for large- and medium-sized buildings to be able to monitor use, identify opportunities for savings, and establish funding priorities.

### 6. Closing the gap

Reinforce the market for clean and renewable energy through a locally prioritized Renewable Energy Credit strategy.

## Monitoring and Evaluating Success

A critical component of the Clean and Renewable Energy Action Plan is tracking, monitoring, and evaluating success as new policies and programs are implemented. These monitoring and evaluation mechanisms should document progress along with equity, economic, and environmental impacts. To facilitate this evaluation, an Equity Impact Assessment Tool was created to be used as a guide and review of action steps as they are developed. The categories and descriptions are in Table 8.1 below. The full report can be found in *Appendix 5: Policy Pathway Assessment Tool: Equity. Economics, and Environment.*

Policies and programs currently developed are not intended to be static. This plan lays the groundwork for a transition to a clean and renewable energy future, but it anticipates that the Athens community will change, technology will advance, and climate change will continue to be addressed globally. Thus, the development, consideration, refinement, and implementation of strategies and policies require ongoing community engagement and participation in order to continue to be effective and equitable.

**Table 8.1** | Policy Pathway Impact Assessment Tool: Equity, Economic, and Environmental Impacts

Source: ACCGov (2022).

## EXAMPLE PROJECT

Department:
Division:

Title:
Project:

### PROPOSAL

Policy, program, or project description.

What are the desired results and outcomes?

### DATA

How has data been broken out?
(e.x. geographic areas, demographics, neighborhoods, population, existing programs, policies)

Are there data gaps?

### COMMUNITY ENGAGEMENT

How have community members and stakeholders been engaged? With whom?

Do barriers/ opportunities to engagement exist and have they been explored? Did we leave anyone out?

### IMPACT

What populations will be affected by the decisions we are about to make? Who is likely to be burdened / who will likely benefit?

What community and equity indicators can this proposal affect? (e.g., housing, food access, youth development, education, economic development, organizational impact)

### ANALYSIS & STRATEGIES

What are the strategies for advancing opportunity and/or minimizing negative or unintended outcomes? What have you learned from data and stakeholder involvement?

What impacts are aligned with desired community and organizational outcomes? What is unresolved?

### IMPLEMENTATION

What is the plan for implementation? Is it realistic and adequately funded, staffed, resourced?

What resources and/or actions are still needed?

### ACCOUNTABILITY & EVALUATION

- How will we ensure accountability?
- How will impacts in the community be documented, evaluated, and communicated?
- How will you continue to communicate, partner, and sustain relationships in the community around this project's impact?

## In Summary — A Living Document

Implementing the Clean and Renewable Energy goals outlined in this plan will have many benefits - a healthier ecosystem and environment, lower energy burdens, more and higher paying jobs, and better overall community health. The proposed initial recommendations above are significant first steps toward meeting clean and renewable energy goals by 2035 and 2050. As this plan moves forward, it does so as a living document, to be routinely reviewed, challenged, and revised. The plan also includes a commitment to the vision that people can work together to create change, address climate related challenges, and become a place where identity does not limit potential.

The development of this plan was made possible through the hard work and generosity of CAB members, community organizations, business and industry leaders, community members, and ACCGov staff, each of whom shared their time, talents, and vision. Thank you to everyone who participated in bringing this plan together. Reaching the goals embodied in this plan will require each member of the community to commit to and participate in the process. But it is crucial that we do so and make the transition to a clean and renewable future.

**Our community and the generations to come deserve no less - and the fate of society depends upon it.**

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# appendix one | Detailed Community Outreach and Engagement Initiative

## Overview

This Attachment details the engagement process undertaken by the Athens Clarke County Sustainability Office, the Community Advisory Committee (CAB), Southface Institute, Greenlink Analytics, and other partner agencies during the Clean and Renewable Energy Action Planning process. It outlines the process and actions taken, lessons learned, and recommendations for future engagement campaigns.

The process took place from 2019-2021 and was initially designed to include in-person meetings, programs, and activities. With the on-set of COVID-19 restrictions, activities shifted from in-person to a completely untested and novel approach — entirely virtual. The Sustainability Office hosted virtual events and one-on-one meetings with stakeholders, Community Advisory Committee member organizations, businesses, community organizations, energy providers, industry partners, ACCGov departments, and the public.

## Summary of Approach

Input from the Community Advisory Board (CAB) and the Sustainability Office helped to:

- Create an index of 90 community organizations, creating a contact list used to invite these groups to charrettes, listening sessions, send surveys, and to facilitate communication
- Create an index of over 37 business and industry leaders (in partnership with the ACC Economic Development Department) that was utilized as a resource to invite stakeholders to listening sessions, send surveys, and facilitate communication
- Conduct 4 listening sessions with area power providers
- Conduct more than 59 listening sessions with CAB members, organizations, businesses, and agencies, elected officials, and individuals where information was gathered, and themes summarized
- Conduct 3 charrettes that focused on gathering information from 90 community organizations
- Conduct 5 community-wide town hall meetings
- Develop and distribute two surveys — one designed to gather information from the general community and one specifically targeting business and industry

Information, recordings, education modules, minutes, and other documents generated during the Clean and Renewable campaign are available via the ACCGov Sustainability Office Website. All events and public meetings were live-streamed and/or recorded for viewing on YouTube along with links were included on the ACCGov website.

## The Clean and Renewable Charrettes

The Clean and Renewable Charrettes were held on January 28th, February 2nd, and February 3rd of 2021. The charrettes addressed three areas of the Clean and Renewable Energy Action Plan: Community and Equity, the Clean Energy Economy, and the Intersection of the Built and Natural Environment. Stakeholders involved in each of these three areas were actively recruited and invited to provide insight on community priorities, recommendations, and goals for achieving an equitable and renewable energy future for all through a process of facilitated conversation and feedback.

Stakeholders were determined through input from the Athens Clarke County Office of Inclusion and the Community Advisory Board. The Sustainability Office also identified non-profit and government agencies in the Athens community and invited them to attend via multiple emails and phone calls. In total, 90 organizations were invited, with approximately 34 organizations represented at all the charrettes.

Though these meetings, priorities for 7 different topics were established, to facilitate guided discussion. The topics are highlighted below:

1. Natural and Built Environment
2. Renewable Energy
3. Education
4. Transportation
5. Business
6. Equity
7. Innovative Technologies

Each topic had an average of five priorities which are outlined in ACCGov Clean and Renewable Energy Action Plan Charrette Notes Summary attached to this addendum. The summary includes potential action steps, opportunities for improvements, and stakeholder concerns.

## Charrette Notes Summary

The discussion questions listed below were used to guide discussion throughout each charrette. Each question belonged to a category related to the community, economic development, and intersection of the natural and built environment.

### Discussion Questions

**General**:

1. What are your initial reactions?
2. What does success look like for you?
3. What are opportunities for partnership?
4. What are the primary opportunities, priorities, and concerns that you see?
5. How do you want to hear from us going forward?

**Community & Equity:**

1. Within the community and equity space, what are your priorities in this clean energy transition?
2. What opportunities for advancing equity do you see in this clean energy transition?
3. What concerns do you have from an equity perspective?

**Clean Energy Economy**

1. What do you see as the top priorities for ensuring a just and beneficial transition to a clean energy economy in Athens?
2. What opportunities do you see in this clean energy transition?
3. What potential roadblocks may arise as Athens moves toward a thriving clean energy economy?

**Intersection of the Natural & Built Environments**

1. What should we be prioritizing as we work to ensure balance between an efficient built environment and maintaining Athens' thriving natural ecosystems?
2. What opportunities do you see in this clean energy transition?
3. What impacts might this have on your organization's priorities?

Priorities

Below are the notes that were taken and summarized by the Sustainability Office and Southface Institute after all three charrettes:

**1. Natural & Built Environments**

- Well-placed trees
  - Trees save heating & cooling costs of up to 25%
  - Trees help reduce the urban heat island effects resulting in reduced energy needs playing a pivotal role in stormwater flow rate reduction and absorption
  - Well-placed trees provide ongoing maintenance for ecosystem services and heating/cooling co-benefits - more intentional inclusion in planning activities
- Natural Asset Management is a method of incorporating the natural environment into the built environment through intentional planning
  - This method of management ensures that all residents are aware of the sustainable source/s of their energy
- Solar sky rights should be considered as property protections from adjacent high-rise construction that blocks the sun, eliminating potential use of solar, both passive and active
- Utilize native species in municipal landscaping to benefit insect and bird populations, ensure a healthier intown environment, and shift the current narrative from a division between the built and natural environments to an integrated built and natural environment
- Incorporate stormwater management in design and development Reduce impervious surface area of large parking lots, schools, and churches to minimize polluted and superheated stormwater runoff

**2. Renewable Energy**

- Energy system considerations - balance generation and supply side resources as they relate to concerns for land use and viewsheds
  - Prime solar real estate on rooftops
  - Opportunity of underground distribution networks for preservation of trees and viewsheds
- Use of existing infrastructure for clean energy deployment (solar at airport, on existing buildings, landfill, other similar areas)
- Increase tree canopy, solar panels — balance difficult

- Residential projects (e.g., Solarize) and partnerships with local organizations to advance low to moderate income solar adaptation
- Consider how zoning policies can help — higher-density, energy efficiency/renewable energy requirements, electric vehicle charging on-site at single and multi-family residential housing

**3. Education**

- Increase education related to the climate crisis and associated solutions Expand education of elected officials (at all levels of government)
- Raise awareness of sustainability and clean energy priorities across all city/county departments
    - Community education
    - Early education in schools
    - Education targeting business and industry
        - Facilitate "peer learning" opportunities
        - Promote "green accomplishments" and commitments of industry and businesses
    - Lead with energy efficiency (follow with renewable energy)
- Effective messaging to action is key
- Energy burden information is critical
- Advertise to increase education and awareness regarding public involvement (as individuals, households, neighborhoods, and business owners) in the clean energy transition

**4. Transportation**

- Demonstrate real-life benefits that make the transition as easy as possible (ex: electric vehicle adoption through public charging infrastructure, preferred parking policies)
- Employ county actions to offset barriers to entry into electric vehicle (EV) market (ex: offset the annual state of Georgia $200 annual excise tax on electric vehicles)
- EV parade — public education/awareness of clean energy, building popular support, momentum, demonstrating economic and climate benefits
- New developments and access for multimodal transit (non-car)
- Normalize alternative transportation projects
    - These measures are predicted to become commonplace in the near future as a cost and culture tipping is reached

**5. Business**

- Recruit new businesses and companies operating locally on clean energy

technology

- Most businesses, successful or struggling, pay utility bills without understanding or questioning the pricing.
    - Experience netting an average 15% bill reduction through rate analysis and demand management
    - "Energy literacy" is important for business owners and homeowners
- Education is key
    - A clean energy transition may be a challenge for businesses because return on investment is critical and bottom line is cost
- Connect job training to workforce development
- Promote and facilitate business to business learning, exchange of information, and education

**6. Equity**

- Prioritize equity in traditionally overlooked or marginalized communities in both in built environment and transportation sectors
- Establish partnerships between building owners and tenants in advancing clean energy
    - Deploy attention grabbing graphics and phrasing to garner more public interest (i.e. water bill mailers, bright colors, compelling phrasing etc.) "Are you paying more on your energy bills? Why?"
    - "Do you live in these neighborhoods?" (With energy burden map)
- Resurrect weatherization program
    - Explore opportunities to address sub-standard housing stock that require renovation before weatherization can be performed

**7. Innovative technologies**

- Battery storage
- Anaerobic digestion (on-site at water treatment plants) - erosion control, electricity generation, composting
- Methane pyrolysis
- Appliance standards

## Opportunities

Opportunities for the above priorities were discussed throughout each community engagement session. These opportunities were a good starting place for the Athens-Clarke County government (ACCGov) in their Clean Energy Plan endeavors.

**1. Low-income residents / Equity**

- Illustrate the economic benefits of a clean energy transition by delivering a decrease in utility bills
- Lead with lifting the most traditionally marginalized communities with clean energy investments
- Prioritize the inclusion of traditionally marginalize populations when advancing energy savings technology
- Consider the lack of clear priorities related to an equitable clean energy transition and resistance to the philosophy of an equitable transition Be cognizant of a possible collusion created if utility costs continue while focusing on energy conservation Affordable housing, concentrated housing
- Uplift Habitat for Humanity's completions of 2 LEED homes with solar (first affiliate in Georgia to do so)
- Expand opportunities for local micro-grid / solar for concentrated groups of housing
- Opportunities for low-income residents
- Provide on-bill financing
- Fold utilities into rent
- Code enforcement does not often benefit renters
- Arrange opportunities for residents to share concerns without fear of landlord retribution (i.e. landlord makes improvements and then raises rent for a net increase to renters)
- Create incentives for landlords to invest in clean energy at their properties
- Explore funding opportunities through Community Energy Fund policy
- Consider scaling up Athens Land Trust West Broad project
- Overhaul general repairs at West Broad project before energy efficiency improvements are made
- Explain benefits and purpose of changes (i.e. LED lights)
- Perform energy audits on each home
- Education of the community is critical (advisory board in West Broad community with 5 outstanding neighborhood representatives)
- Education of community regarding energy burden alleviation and the role of energy efficiency in a clean energy transition
- Lead with energy efficiency (the lowest-hanging fruit)
- Institute clean energy classes by community-based organizations
- Utilize literacy program to influence children and encourage entire family involvement through competition between complexes
- Potential to provide SPLOST and/or Community Energy Fund dollars to fund equitable solutions
- Potential partnerships include Clarke County School District; Envision Athens; Northeast

Georgia Business Alliance

**2. Businesses / Workforce**

- Develop the clean energy economy in Athens
    - Consider relevance of transition to small and medium businesses (SMBs)
- Prepare "energy literacy" in schools as a potential SMB conduit
    - Partner with Small Business Development Center, Chamber of Commerce, Athens Technical College
    - Encourage the County to recognize businesses and provide discount licenses if certificate is achieved
- Explore focused partnership opportunities between Community Advisory Board and Chamber of Commerce
- Pivot towards prioritizing job training and SMBs instead of economic development via landing the big fish
- Consider larger prospects looking for clean energy (i.e., Georgia Power and the EMCs)
- Examine potential use of incentives to facilitate the knowledge base needed to turn the corner on mandates
- Review the question of philosophy v. understanding
    - Buy local and hire local
- Supply Community Energy Fund outreach and education for low-income / SMBs
- Add incentives for performance criteria when developing recruitment and retention packages for business
- Ensure commissioners and community leaders have a good philosophy in moving forward
- Learn from the several businesses that have set goals more ambitious than ACCGov and have already achieved significant advancements toward a clean energy transition
- Collaborate with Chamber, Northeast Georgia Business Alliance, and others to provide opportunities for "peer to peer" learning, and facilitate the communication of successes and lessons learned

**3. Natural environment / Stormwater**

- Incentivize greater investment in residential green infrastructure and stormwater management
    - Consider providing green infrastructure tax break for residential on-site water management

- Consider a variance that enables site inspection to confirm efficacy of green infrastructure (GI) and adjusts stormwater utility fee accordingly
    - Alter assessment methodology to consider not only the footprint of impervious surface area, but also, groundwater / soil recharge
    - Nuances between retention and absorption can be considered as well
- Create a strategic master plan (including tree cover) that focusses on the intersection between public and private property including transportation infrastructure concerns (i.e. bike lanes, sidewalks)
- Electrify equipment used in maintenance of public landscapes (phase out gas powered city / county owned lawn mowers, leaf blowers, etc.)
- Utilize river greenways to manage water runoff and re-establish tree cover (master plan opportunity)
- Create incentives for more effective and innovative green infrastructure (i.e., permeable pavers)
    - Consider utilizing stormwater fees to implement incentives
- Generate more advanced development ordinances to address soil volume, as well as or instead of canopy cover ordinances
- Increase greywater use beyond current county-led large user / business pilot to include SMBs and residential households
- Factor water benefits and water efficiency in project designs
- Energy/water nexus
- Obtain a balanced approach to managing tree canopy preservation and development
    - Consider ecosystem services and value of green spaces for potential tenants in cost analysis
    - Education needed for both the development community and environmental community
- Need to recognize the benefits and ecosystem services provided by native forests, meadows, and grasslands
    - Explore opportunities for planning and zoning ordinances to be changed to promote native habitat management
    - Create plan/s to utilize green infrastructure on a community-wide basis to create resilient and sustainable communities for native plants and wildlife
    - Explore and develop opportunities to enhance native habitat and “urban foraging” in already impacted areas (i.e., parking lots, school/church grounds, neighborhoods, etc.) as opposed to natural areas and parks set aside for conservation

**4. Partnerships**

- Create strategic partnerships with local institutions (K-12 schools, state government)
- Upper Oconee Basin Water Authority (re: energy consumption relating to water production)
- Northeast Georgia Regional Commission
- Research opportunities for local academics
- Continued communications through water bill newsletters from the Water Conservation Office, Water Business Office, or ACCUG communications office
- Encourage local organizations to reevaluate their goals in alignment with ACCUG
- Employ strong cross-departmental collaboration within ACCUG required on initiatives (planning, transportation, zoning, sustainability, and housing)
    - Zoning codes could be an instrumental pathway for ensuring sustainable development
    - Review a community-wide approach to expand the County's current initiatives and advance their clean energy goals
- University of Georgia

**5. Transportation**

- Create incentives to clean transportation and multimodal transportation through zoning (shift away from car-centered design)
- Reinvigorate high-speed rail conversation (Athens-Atlanta connection)
- Transitioning away from "car culture" through partnerships with alternative transportation organizations and enhance safety for alternative transportation methods (Bike Athens, Greenway Commission, Athens in Motion Commission, Leisure Services, UGA Geography Department, School of Social Work, College of Environment & Design)
- Leverage early adopters of pre-owned electric vehicles for in-town transportation ($4-5k) in a creative method
- Expand transit across county lines to reduce traffic on the roads
- Consider sustainable biofuels, fuel cells, hydrogen cars
- Explore electric car-share rental potential (short-term rentals) with a particular focus on multi-family and low-income communities, and/or areas where access to transportation is a challenge

**6. Renewable Energy**

- Increase utilization of rooftops for solar through 3rd parties (increase tree

canopy in parking lots)
- Explore opportunities to utilize existing infrastructure/built areas for solar, rather than natural areas/areas with tree cover (airport, landfill, open/grass fields, right of way medians, etc.)
- Explore ways to create micro-grids and build local renewable energy sources that serve multiple properties

**7. Innovative finance**

- Aggregate investments including residential models (Solarize Athens, Co-ops, Tax Allocation Districts, Community Improvement Districts) for energy infrastructure
- Develop Community Development Block Grant funds and new funding sources from the new Administration
- Explore ways to provide low-interest loans, pay-as-you-go, and other strategies to achieve clean energy transition
- Provide and promote income-based assistance

**8. Waste**

- Consider passing a plastic bag ban to reduce waste and mitigate impact on landfills
- Investigate potential to incorporate bio-degradable and/or recyclable products into supply chain, especially locally sources and one-time use plastics (food service industry)
- Explore ways to connect business and industries to recycling or reduced waste options
- Explore ways to reduce overall packaging and items that cannot be recycled
- Promote opportunities to keep trash out of waterways

## Concerns

Concerns around how the policies and programs discussed above would affect residents, business leaders, and building owners was discussed throughout each charrette and townhall so that ACCGov could prepare for an equitable clean energy transition. A list of discussed concerns is provided below:

1. Equity

- Account for career displacement potential
    - Ensure that a just transition, including fair wages and benefits, are provided to any who may have to transition to a new workforce

- Landlord buy-in (for low-income residents)
- Home repair needs and severe energy burden can result in families experiencing homelessness
- Energy efficiency is often first to those who can afford it
- Participants can provide connections into landlords
- Energy efficiency improvements must balance short-term concerns versus long-term needs
- Consider the limitations of Code Enforcement as a tactic for improving rental housing
    - Code Enforcement should provide an opportunity to respond within a reasonable period
    - Create opportunities for fixing relatively minor issues before getting to extreme measures
    - Low-income residents may not have the time/resources to address Code issues
    - Breaches of Code Enforcement may be grounds for eviction therefore residents are unlikely to call code enforcement
- Local residents rely on fossil fuels for home appliances and transportation and may not currently have the resources to replace that equipment
- Funding opportunities and strategies need to be explored and developed providing low to moderate income households the financial opportunities and pathways towards transition

**2. Energy policy**

- Political landscape in Georgia remains a challenge
    - State level policies and laws affect what actions ACCGov can and cannot take
- What is the potential to influence energy generation sources locally?
    - Manage transition over facilities for which ACCGov may not have jurisdiction
    - Financial constraints over major infrastructure investments make transitioning difficult until the cost-benefit analysis is stronger for projects such as solar and fuel switching
- Consider rethinking the balance between short-term and long-term budgeting processes
    - Standard budgeting processes (year-to-year) make it challenging to prioritize long-term investments in higher-ticket/slower payback energy efficiency and renewable energy projects
- Contemplate nuclear energy as a clean energy pathway
- RECs (Renewable Energy Credit) purchasing can be difficult to justify; however, if

purchased, the focus should be on local production
- Increase the ability to influence organizational priorities across local entities
- Leadership at (and partnership with) the State government is required
    - Effectively communicate value case (jobs, economic benefits)
    - Eliminate current barriers
        - Gratuities Clause in Georgia constitution may be potentially problematic for some community investment
        - State-level preemption of local government powers
- Enable effective incentives
- Explore ways to work with Public Service Commission and energy providers to generate long term financial incentives that will reduce energy burden, and promote/fund clean energy transition equitably

**3. Business**

- Consider what companies need in terms of payback periods and return on investment
    - 3—5-year payback is a consistent priority for many
    - Weeks or months can be a helpful on-ramp and help to subsidize longer term investment (though, there are drawbacks to focusing only on lighting)
- Payback needs and expectations vary widely depending on planning cycles, margins, and business model
- Clean energy often presented as a business-unfriendly approach (i.e. mandates) therefore negative reactions from the business community are not uncommon or unexpected
    - Consider the need for a very strong economic argument and opportunities to create partnerships and promote successes
- Create meaningful incentives for building/housing development cost related concerns
- Include more business/for-profit stakeholders at the table
    - Consider concern of confidentiality
    - Chamber involvement (Northeast Georgia Business Association, East Athens Development Corporation, Homebuilders Assn. of Georgia, etc.)
- Consider constraints for investment in deeper-level energy efficiency improvements
    - Limited funds
    - Lack of incentives
    - Lack of knowledge — concern that something will require a lot of investment and may fail

    - Need for additional communication between businesses that are successfully transitioning and those who are not sure how to proceed

**4. Education**

- Workforce development is key
    - Training without connectivity to actual jobs can be a problem
- Ongoing education and engagement of the community
    - A true shared understanding of why community should be involved, what their role is, and how to make it happen
- Potential "energy literacy" / job training programs through the East Athens Development Corporation
- Invest in the East Athens neighborhood

**5. Natural environment / Stormwater**

- Utilize stormwater utility fee to address stormwater issues
- Prioritize tree maintenance and management as much as tree planting and cost-benefit considerations
- Provide sufficient opportunities to increase and maintain tree cover as much as possible with a focus on protecting critical root zone to (and beyond) drip line
- Consider optimum tree placement with redesign of existing streets on private property
- Incorporate community-wide native habitat, natural resource conservation, wildlife corridors, etc. into planning and implementation effort to achieve maximum benefit from green infrastructure

**6. Transportation**

- Limited access to electric vehicle charging at residential properties at present
- Work to shift hierarchy of car over public transport and balance competing interests in different City departments (planning v. public works)
- Navigate local v. state control (i.e., city/county v. Department of Transportation) of road, rail, and metro connectivity

## Stakeholder and Business/Industry Engagement Listening Sessions

One-on-one listening sessions with community and business stakeholders took place over a four-month period from February 2021 to June 2021. A total of 53 organizations were invited to meet with the Athens-Clarke County Sustainability Office and Southface Institute to have in-depth conversations about what a Clean and Renewable Energy community might look like in Athens. Of the 90+ CAB members, organizations, businesses, agencies, elected officials, and individuals invited; the Sustainability Office successfully held 59 virtual listening sessions. Listening session participation was achieved through outreach from CAB members, two separate email solicitations, and direct contact via phone. Traditionally marginalized communities that are the most affected by climate change consequences were considered priority stakeholders through this process, and particular effort was made to include community groups who represented the voices and experiences of individuals not traditionally heard and/or generally left out of public engagement processes. The success of this effort was possible through the assistance of extraordinary support provided by the ACCGov Economic Development Department, Housing and Community Development Department, and the Inclusion Office.

A series of standard questions were created to help guide the discussion and included:

- What energy related sustainability efforts does the organization already have underway?
- What are barriers that have prevented sustainability efforts?
- What are ways that the local government could support sustainability efforts?
- What are strategies that the organization would caution against local government implementing?
- What are long term concerns related to ACC's Clean and Renewable Energy Commitment?
- What partnership opportunities could be expanded on between ACCGov and the organization and/or community?

In contrast to the broader and more general themes generated through the charrettes, these virtual listening sessions provided more detailed accounts of actions the participants felt ACCGov needed to prioritize in the Clean and Renewable Energy Plan. Detailed themes were consolidated from each session and combined into a single document titled *Combined Themes: Business, Community, Power Providers, CAB.* This document is attached below.

## Combined Themes: Business, Community, Power Providers, and CAB

Business Themes

Questions around clean energy knowledge and concerns around clean energy were asked within the business community, which influenced several decisions present in the Clean Energy Plan. A list of those questions are provided below:

**Q1.) Please tell us about any energy-related sustainability efforts that your company currently has underway, in planning stages, or may be considering.**

- **Energy**
  - Solar tubes, light sensor system, LEDs, solar arrays, energy surveying, and efficient auxiliary power units
  - Electric vehicles & equipment
  - Energy efficient appliances, HVAC, and other systems
- **Water**
  - Low flow toilets, waterless urinals, no irrigation
  - Trying to harvest water from production for non-potable use
- **Other**
  - Composting
  - Buying local
  - Goals to reduce greenhouse gas emissions
    - Production generated $CO^2$ recovery
  - Zero waste entering landfill goal (hardest items are plastics)
  - LEED certified
  - There are varying levels of effort. While some efforts are very advanced and have their own sustainability goals, others are just starting out or need resources or help to get started.

**Q2.) If your business is not currently engaged in energy sustainability efforts, what are some of the barriers or considerations that have prevented you so far?**

- **Lack of Knowledge**
  - Need for education around how to begin and be cost effective (i.e. acquiring solar for building, what really works, and who to trust to give accurate information)

    - Do not know what questions to ask
- **Location**
    - Roof usage/suitability and space for solar
    - Difficulty in making changes when a business is renting their building

- **Technology**
    - Needs to improve to make products more affordable and worth the investment
    - Concern that the technology is not as efficient when installed as advertised (i.e. projected savings vs. actual savings)
    - Methods to determine if technology is proven and reliable
- **Funds**
    - Does not meet business's expectation for Return on Investment (ROI)
        - Return periods are often longer than businesses are willing to tie up investment
        - Low or slow ROIs and difficulty determining the ROIs
        - Understanding short-term vs. long-term costs
    - Sometimes a company must be larger for the economics of sustainability to work
    - Need for government incentives or rebates (i.e., low interest loans)
- **Other**
    - Small to medium businesses feel powerless because of the barriers and have a lack of capacity to investigate and advance clean energy goals

**Q3.) What are some ways that our local government could support your business' efforts towards energy sustainability?**

- **Education**
    - Need seminars, webinars, and workshops on methodology, process, and how to evaluate providers and programs
    - Provide a checklist for new businesses and have a plan in place for new businesses
    - Provide workshops featuring tours of successful businesses and roundtables for businesses to interact
    - Although there are clean energy resources in the community, there is a lack of shared knowledge between businesses
- **Energy**
    - Introduce zoning & planning ordinances that allow solar on rooftops and on the ground
    - Need more and new EV charging stations

    - Retailers who want to offer charging stations as part of their services need a protocol on how to monetize the charging stations
- **Funds**
    - Explore cost-sharing options for solar with the government by providing some of the upfront low-to-no interest loans and/or revolving loan fund
    - Enable group buying among businesses to help with upfront costs
    - Provide tax credits and other financial incentives
        - More incentives for green jobs and technically qualified people
        - Create a resource for identifying what local, state, and federal incentives are available
        - Establish a property tax abatement or incentive similar to Tax Allocation Districts (TADs) in exchange for energy efficiency measures in building
            - Pass on savings to renters
- **Marketing**
    - Promote the sustainability efforts other businesses and industries implementing
    - Highlight sustainability as an economic boon, not as a "green" initiative
    - Rebrand the idea of "Green" in order to broaden community support
- **Other**
    - Involve landlords by identifying a "win/win" for landlords and renters
    - Partner to expand the Purple Pipe initiative (a water reuse pipeline for irrigation and industrial use)
        - Explore potential to sell to other, nearby businesses for non-potable use
    - Increase education regarding cost effective green infrastructure projects including the retention and treatment of stormwater, low water use landscaping and native plants landscaping
    - Explore opportunities for zero waste programs

**Q4.) What are some strategies that you would caution our local government against implementing to meet the 100% Clean & Renewable Energy commitment, and why?**

- Adopt policies for implementation that have cost effective measures
    - Need to be economically feasible
    - Include economics education
    - Help businesses understand how to approach policies from a cost savings

perspective

- Do not create a plan that includes punitive actions for those who do not participate in clean energy policies or programs
- Some current zoning requirements can be a deterrent
- Provide options and avenues to consider business and industry viewpoints
- Limit harsh restrictions or zoning for residential neighborhoods
- Continue extremely progressive policies in the area of waste
- Remember that businesses are also taxpayers and contribute in various ways
    - Get buy in from ALL and from a large spectrum of people
    - Do not assume everyone is a permanent resident with documentation
- Acknowledge that every technology (even green technology) has pros and cons
- Implement well-designed regulations with advance notice, compliance phase-in, and with costs/benefits equitably distributed
- Prioritize the transparency of policy

**Q5.) What are the long-term concerns you have, if any, about efforts toward ACC's 100% Clean & Renewable Energy Commitment?**

- Needs to be cost effective
- Too harsh restrictions
- Lack of communication and education about what the plan really will do for businesses and the community
- Ensure community involvement

**Q6.) What partnership opportunities would you like to see expanded or started involving the business community and local government?**

- **Education**
    - More education around utility conservation efforts
        - Expansion of Purple Pipe Project
        - Greater understanding of sustainable energy needed
    - Implement periodic check-ins with the business community
        - Post-COVID, have in-person meetings to facilitate interaction between government officials and businesses
        - Quarterly workshops
    - Understand what questions to ask and what partnering opportunities are available with ACCUG

        - Create a centralized resource to facilitate to access local, state, and federal sustainability resources and incentives
        - Desire to partner with ACCGov to gain guidance of the process that a company needs to go through to redevelop sites
        - More education and resources on what methods generate the greatest impact and cost savings
        - Need help identifying and applying rebates for businesses
- **Continue to be Supportive**
    - Local government has been very supportive, helpful, and approachable
    - Athens has a great local government
- **Cross Industry Sharing**
    - Business and Industry Roundtables
        - Learn how business and industry successes and processes (i.e. installing solar and other energy initiatives)
        - Identify the "low-hanging fruit" associated with sustainability
    - Create business to business peer pressure and facilitate opportunities for businesses to work together
    - Create opportunities for "block buying" power
    - Partner with a local business to pilot sustainability programs in order to demonstrate the benefits for local businesses and provide feedback
    - Competition fuels progress
- **Other**
    - Expand recycling options
    - Promote high efficiency residential and commercial HVAC and monitoring units
    - Develop technical talent within Athens Clarke County (ACC) to provide technical information and assistance to businesses
    - Provide roof space and solar energy options
    - Utilize local and university resources that can help businesses with ideas and expertise
    - Increase the number of EV charging stations
    - Multifamily ownership changes and financing create disincentives for long-term investment in clean energy
        - Support innovative ideas in this area
        - "Promotions" in multifamily housing rentals may be useful if businesses take on expenses due to their energy savings, location, and transit options, etc.

- Identify methods for multi-family developments to incorporate clean and renewable features that will result in economic savings
- Identify methods to audit and document so economic savings in order to attract renters (i.e., monthly cost may be higher but documented proof related to utility cost proves that actual cost is lower or no greater than other rental facilities)
- Promote and recognize organizations that are transitioning or advancing clean energy and sustainable development (create criteria and recognition program)
- Highlight total cost and subsequent savings associated with transition to reflect affordability, ROI, value, and impact on environment, etc.
- Explore ways to document and promote a clean energy transition such as competitive advantage leads to market transformation or a change towards clean energy investment (i.e., benchmarking policy)

## Combined Community Themes

**Q1.) Please tell us about any energy-related sustainability efforts that your organization currently has underway, in planning stages, or may be considering.**

- Some community gardens, but would like more
- Occasional catching and storing rainwater
- Trying to get solar panels for schools
- Not as much as they would like
- Converting to LEDs
- Always trying to reduce energy costs
- Applied for solar panels, but did not receive the grant
- Working on a 10—15-year energy plan
- UGA students and Georgia Power Company (GPC) did energy assessments
- Building homes to high level of energy efficiency through materials and methods

**Q2.) If your organization is not currently engaged in energy sustainability efforts, what are some of the barriers or considerations that have prevented you so far?**

- Many community members are renters and are afraid to complain about issues fearing they will be evicted, or the rent will be increased as repairs are made. Because they are often not successful at obtaining basic updates like working appliances and fixing broken

windows, they are not likely to initiate energy saving changes.
    - Renters may not have their name on the bills and thus are unable to communicate with companies
- **Equity & communication**
    - The work available is not diverse enough, and marginalized communities are the last to know about initiatives and energy saving benefits.
- **Financial burdens**
    - Upfront costs of clean energy alternatives (i.e., solar, or even LED light bulbs)
    - Hard to budget for these clean energy expenses
    - Understanding and justify ROI
    - Affordable housing is usually located further in suburbs where public transportation is unavailable
    - The people who can afford sustainable houses, EV, and clean energy alternatives already have wealth and are not the most in need of savings
    - Appraisers currently do not have the training or ability to price energy efficient homes higher which limits the motivation to invest in renewable energy

**Q3.) What are some ways that our local government could support your organization's efforts towards energy sustainability?**

- **Jobs**
    - Engage people at resource and job fairs (ACC table at or attend these events)
    - Ensure new clean energy jobs address livable wage setting, and paid trainings are mandatory
    - Full time employed residents should not have to struggle to pay their bills
    - Provide protection for immigrant workers
- **Education**
    - Increase communication, advertising, and education of the programs and their benefits
    - Use local radio, news, podcasts, flyers, and churches to spread the word
    - ACCGov needs to create opportunities for in-person discussions of clean energy benefits
    - Provide energy efficiency educational workshops for the organizations and the communities they serve
    - Provide workshops/education opportunities in Spanish/other languages to ensure minority populations have access to information
    - Provide a consolidated list of existing programs that ACCGov provides
        - Community members struggle to coordinate all of the pieces in order to benefit from a program/service

    - Provide alternative education sources to account for computer illiteracy
        - Strong channels for outreach include the newspaper, The Flagpole, and bus advertisements
- **Construction**
    - Provide/require Home Energy Efficiency Rating (HERS) disclosure and create a sticker for the appraiser (placed on the electrical panel) for every new or renovated building/structure
        - Require/provide resources to purchasers that help translate a HERS score into dollars saved for the homeowner
    - Land use changes
        - Smaller lot sizes permitted
        - Reduce parking requirements
        - Allow construction of homes smaller than 1,000 $ft^2$
        - Provide incentives for restoration or conservation of native habitat during and after construction
    -
- **Helping with renter protection, and landlord compliance**
    - Enforce code compliance
    - Focus on advancing social mobility of renters, to make home ownership easier (co-benefit of reducing renter/landlord split incentive for energy efficiency investments)
    - Create marketing programs available through government and non-government agencies (i.e., ACCGov Housing and Community Development Department, Athens Land Trust, Action, Inc. Habitat for Humanity, etc.)
    - Create a tool kit for renters to ensure they are receiving livable conditions and know their rights (i.e., tenant handbook or one page summary of information)
    - Create policy around standardized clean energy requirements
    - Create low or no cost audits
    - Create solar as an option for renters
        - Collaborate with power companies for assistance and installation of equipment
- **Financial**
    - Create funding or incentives to assist with clean energy solutions (i.e. solar installation)
    - Lower property taxes (for a fixed period or an ongoing percentage) for properties attaining certain clean energy ratings
    - Provide opportunities and funding that create clear financial benefits and

reasonable ROI
    - Investigate grants or low interest loans for builders to use better equipment and technology
    - Make funds available to those who may live in the cash/informal economy

**Q4.) What are some strategies that you would caution our local government against implementing to meet the 100% Clean & Renewable Energy commitment, and why?**

- Not addressing the equity and fair wages opportunities first before the plan is put in place
- Ensure rental spaces are assessed and meet livable standards before adding energy saving components
- Avoid unfunded mandates
    - Do not require compliance with certain energy efficiency standards without providing resources to help homeowners and businesses
- Being aware that legal migration/residency status varies
    - Legal migration/residency status may limit participation in programs
- Ensure people in the informal economy or cash economy do not get left behind
- Make sure to present clean energy as an opportunity for economic advancement and increased value instead of "green"
- Implement requirements for older buildings
    - Be cautious of standards & updates pricing residents out of their homes

**Q5.) What are the long-term concerns you have, if any, about efforts toward ACC's 100% Clean & Renewable Energy Commitment?**

- The creation of institutions where workers are not paid a fair and livable wage
    - Need to create good opportunities with living wages or higher
- Concern that stated barriers will not be addressed
- Concern about implementing things that would accidentally hurt our constituents
- Members have a lot of mistrust/anxiety about services being offered and are often in vulnerable situations
    - Need guidance assessing quality and trustworthy resources/services
- Ensure that programs are available to all residents
    - Do not require certain documents that may be difficult for immigrants and people working in the informal economy to obtain
- Concern that requiring retrofits to existing housing stock could impact affordability

**Q6.) What partnership opportunities would you like to see expanded or started involving the community and local government?**

- **Working with landlords and renters**
  - Provide incentives for landlord to provide the needed updates
  - Give renters the tools/education to take action themselves
  - Require higher zoning standards for all landlords
    - Require changes so landlords do not lose their competitive prices
  - Increase communication and knowledge between tenants and landlords
  - Compile a citywide list of identifiable issues that are being overlooked/not addressed to push for solutions
  - Work with utility providers to help bridge the gap from energy programs to programs for home repairs and other necessary services
  - Partner on a pilot to build a neighborhood out of concrete houses
    - Demonstrate the cost-effectiveness of building tiny homes, condos, apartments
    - Focus on marginalized communities, low socio-economic status households, veterans, etc.
  - Help people transition from rental properties into homeowners
    - Positive effects of homeownership include the ability to save money, attend better schools, and limit reliance on external funding
    - Lower the barriers that inhibit people from achieving homeownership (i.e. fees associated with building currently includes a $3,000 fee just to link to a public sewer line)

- **Education**
  - Help homeowners identify a quality clean energy transition contract (i.e., solar provider) and ways to locate quality contractors when making improvements
  - Include education sessions and outreach around clean energy benefits/programs
  - Reach out to high schools and start the conversation around labor and career pathways as well as energy efficiency
  - Help people understand the ROI for energy-saving initiatives
  - Include the community in conversations, input opportunities, and education sessions
  - Increase dissemination of educational materials
    - Both verbally and written in multiple languages
    - Engage with communities that do not receive flyers (work with community organizations to provide information)
- **Funding**
  - Create revolving loan funds specifically for energy efficiency and solar
  - Ensure that the money and jobs going towards electricity/ natural gas are not

leaving our community by hiring local
    - Increase affordability of solar panels

### Combined Power Providers Themes

- Different approaches are driven by members v. state-regulated
- "C&I" (Commercial & Industrial) customers are considered important to the utility
- Power providers strongly recommend clean energy "credits" as an alternative for customers through different types of programs and incentives
- Power providers have heard interest in community solar projects
- ROI is often the "deal-breaker" for some customers seeking clean energy investments

## Combined CAB Themes

**Q1.) Tell us about any energy-related sustainability efforts that your company currently has underway, in planning stages, or may be considering.**

- Tracking policies related to potential EV chargers' locations
- Brainstorming methods to alter energy code terminology in order to bring it up to speed with current technologies
- Brainstorming how to most efficiently implement new energy codes into growing neighborhoods in Athens

**Q2.) Your business is not currently engaged in energy sustainability efforts, what are some of the barriers or considerations that have prevented you so far?**

- Lack of capital for renovations and renewable technology
- Certain restrictions to Georgia Power programs (not applicable to all institutions, especially those who are subsidized with federal money)
- Need effective education and intentional community goal setting in order to prevent disenfranchisement for any large-scale renewable planning and implementation to occur
- ACC is limited in scope of policy due to state and federal level policies
    - Need to increase lobbying at the state level to advance clean energy policies
- Concern regarding convincing businesses that are only concerned with maintaining the bottom line
- Issues around zoning particularly the fact that property values dictate a certain house size and clients cannot build smaller homes if they are restricted from doing so
- Disconnect between zoning and historic preservation

- Public Service Commission regulations and power providers limit the ability to take advantage of opportunities to expand solar economically (i.e., utilize industrial areas to create micro-power grids that would lower energy cost and enhance clean energy transition)

**Q3.) What are some ways that our local government could support your business' efforts towards energy sustainability?**

- Create more educational opportunities and resources to help understand and implement energy efficiency measures
    - Create partnership or peer-to-peer learning opportunities available to help provide this information
    - Create financial opportunities to help overcome financing and funding challenges
    - Encourage ACCGov to create resources and educational series for tenants/renters on how to save on energy bills
- Employ a Sustainability Representative as part of the Planning Department
- Work with the Sustainability Office to advance the Green Jobs Pipeline
- Add recommendations for utilizing SPLOST money to ensure the momentum of implementing Clean and Renewable Plan is adequately funded
- Target outreach and education efforts to specific audiences
- Lack of evidence that incentives for the business and construction/development industry increase compliance or enhanced standards for building efficiency, sustainability, or the use of renewable energy
    - Although the city does not have the authority to regulate affordable housing, they do have the authority to regulate energy codes and require that buildings are higher quality
- Advocate for increasing regulations versus rewarding people for volunteering
    - Such standards should be clear and are phased in such a manner that they are achievable by the industry
- Begin a conversation around re-thinking the energy structure (how we get it, how we use it, and how much we use it)
- Advance serious education of elected officials regarding practicality, financial viability of clean energy regarding commercial real estate
    - Create a list of pre-approved re-zones and standards to apply
- Create an energy code for Athens or adopt an energy code that is higher than the federally mandated energy code would help level the playing field and raise the building standards
- Build RESchecks into the permit process (Note: REScheck is a program that enables the industry to document compliance with energy codes. More information is available at:

https://www.energycodes.gov/rescheck)

- Zoning needs to be adjusted to help change building design
- Athens needs an energy inspector to help maintain the quality of projects and ensure sustainable continuation of codes
- Slowly adding more to codes over time may be the most successful method for businesses
- In order to limit stress on small businesses, require larger-scale projects adhere to certain requirements and standards

**Q4.) What are the long-term concerns you have, if any, about efforts toward ACC's 100% Clean & Renewable Energy Commitment?**

- Create an established guideline for what is considered good renewable standards and a timeline of how to achieve those standards

**Q5.) What partnership opportunities would you like to see expanded or started involving the business community and local government?**

- Make information about Georgia Power programs (especially RISE) more available
- The Sustainability Office needs to create a conference (within the next 6 months) with other interested stakeholders in order to create a timeline for the plan and outline the target

## The Clean and Renewable Energy Town Halls

Five Clean and Renewable Energy Town Halls took place from April 2021 to May 2021. Differing from charrettes and 1:1 meetings, all community members were invited to attend virtual town hall meetings to share their thoughts, concerns, and ideas for creating a successful Clean and Renewable Action Plan. The media and outreach campaign are outlined above in the “Summary of Approach" section. A total of 45 community members attended all virtual town hall meetings.

Town hall meetings generated ideas and perspectives not previously documented, along with ideas and themes that complimented stakeholder and charrettes findings recorded during meetings held prior. Some of these themes include:

- Interest in hydroelectric power sources
- State level barriers
- The Community Energy Fund
- Interest in the ACC Carbon Footprint
- Interest in exploring any prevention of gentrification and accountability during the implementation of the Clean and Renewable Plan
- Questions regarding the application of equity in the hiring and pay/labor for workers in traditionally marginalized communities
    - i.e. creation of a “Green Jobs Pipeline” to help in this effort

Feedback from the meetings is combined into a single document, Clean and Renewable Town Hall Feedback, which can be found below.

## Clean and Renewable Town Hall Feedback

### **Town Hall #1:  April 8, 2021**

- Need to identify what organizations the Sustainability Office will be collaborating with
- Discussion about opportunities for solar installations, and potential conflicts/overlaps with other development, natural lands, and historic farmland
- Identify how to apply equity in hiring and pay/labor benefits for workers from marginalized communities entering the clean energy field
    - Prevailing wages, paid opportunities while in training programs, apprenticeship standards that align with the labor dept. etc.
    - Consider how this can increase the average wage in ACC

- Consider hydroelectric on the Oconee River

## Town Hall #2: April 10, 2021

- Identify community partners in collaboration
    - Are Oconee and Jackson Counties included in this plan?
- Address zoning reform as being excluded from our presented "list" (of pathways towards clean energy)
- The reduction of a carbon footprint means getting people closer to jobs, parks, grocery stores etc.
- Invest in a solar-ready workforce through training and apprenticeships
    - Will these jobs be guaranteed at fair, or prevailing wages?
    - How many people from marginalized communities have been employed by local clean energy employers?
    - Is ACC willing to push for policy that will protect local workers?
- Identify where resistance to this program exists in the community

## Town Hall #3: April 19, 2021

- Interest in SPLOST funding to date and ACCGov solar programs/projects to-date
- Interest in an ACC Carbon Footprint
- Why is nuclear energy not included in the currently listed sources of clean and renewable energy?
- Discussion about Athens-Ben Epps Airport, opportunities for solar installations, fuel sources, and other clean energy opportunities
- How many residential homes have been served through the Athens Land Trust efficiency project? Are there plans to continue/increase this project?
- How can energy managers can support small and medium sized businesses?
- Discussion of accountability for plan implementation and prevention of gentrification

## Town Hall #4: April 27, 2021

- Concern regarding electric vehicle (EV) "penalty tax" in Georgia
- Interest in recommended company(/ies) for energy efficiency audit
- Interest in EMC community solar programs
- Interest in new hydroelectric power sources
- Question about how Athens will encourage local renewable energy generation
- Interest in coordination between large companies/manufacturers interested in solar investments
    - Could ACCGov play this role?

- Concern regarding legislation preempting local government from restricting certain energy sources
- Is ACCGov considering Solar Energy Procurement Agreements?
- Strong interest in job creation
    - Who will get new jobs? What types of jobs? How long will jobs stay in town?

## Town Hall #5: May 6, 2021

- Green Jobs Pipeline opportunity for connection
- Concerns about reaching goals due to challenges at state level
- Interest in learning more about Community Energy Fund
    - Status of funding? Opportunities for using funding?
    - Impacted by COVID?
- Encouragement to meet with Winterville City
- Has this Plan received expected/adequate participation?

## Online Survey: Athens' Community

The Athens' community survey was a critical component of the community engagement initiative. To better understand the priorities of residents and local businesses, Athens conducted two online surveys—one for community members and one for local businesses. Both surveys were intended to gauge overall understanding and attitudes towards the ACC Clean & Renewable Energy Action Plan. The survey was advertised throughout town in businesses and common gathering places, on the ACCGov website as well as pushed through multiple online networks, including NextDoor. More than 90 local community organizations were sent the survey with a request that they forward the information to the people they serve. These survey results indicate that both ACC residents and business owners strongly support the 100% Clean and Renewable Energy goal that has been proposed and also support a green economy that will protect the health of residents and the environment.

Over 300 community members and businesses provided their input through both online surveys. The surveys attempted to capture responses from all demographic groups in the ACC community. However, the restrictions imposed by the COVID-19 pandemic may have made it challenging for some residents to participate. Survey respondents were generally middle-aged, middle- to high-income, White, and more likely to own their homes. The low response rate of lower income, younger residents, and people of color may reflect insufficient access to the internet either because of financial constraints or geographical location. These segments of the population may not have participated in the survey because they did not hear about it or could not complete it online. Unfortunately, COVID-19 restrictions prevented ample in-person contact to solicit community input.

To address these limitations, the data received was statistically normalized to be more representative of ACC's demographics. Weights were developed to aid in interpreting the results. For example, 3 percent of the survey respondents were African Americans, even though that demographic comprises 27 percent of the ACC population. Therefore, the African American responses were more heavily weighted to account for the uneven response. The estimated margin of error of +/- 6 percent was based on the controls that could be applied and the response volume. Future solicitation of community input will aim to be more representative of the entire population, especially historically marginalized communities. This should be more feasible as COVID-19 restrictions are withdrawn. Below are short summaries of key survey findings.

Most survey participants supported the Athens 100% Clean and Renewable Energy goal even before learning additional information of what this goal meant. Nearly 70 percent indicated they were very supportive, and 10 percent were somewhat supportive.

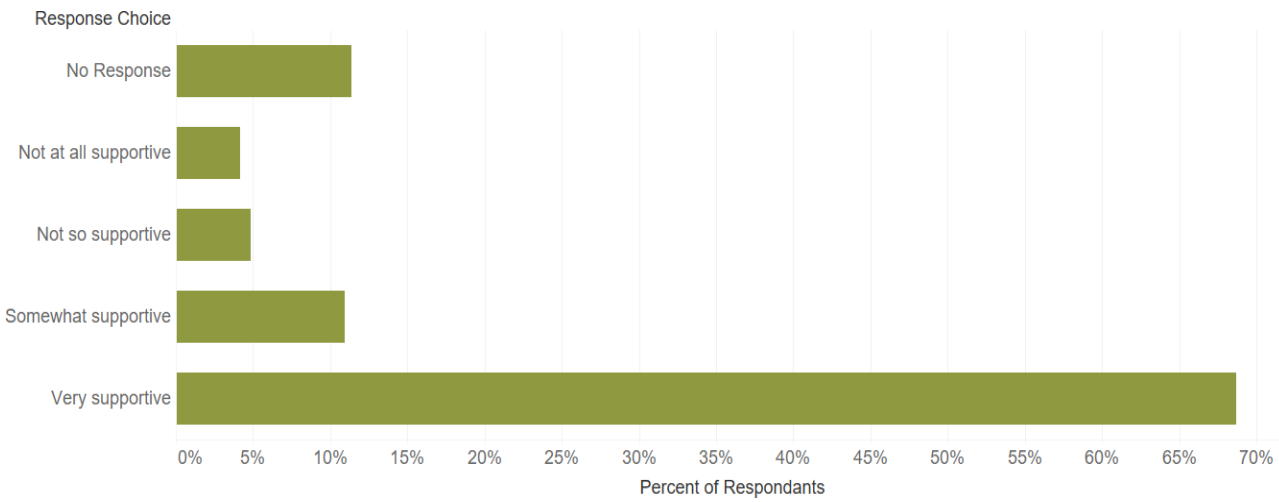



**Figure 7.1 If you have previously heard about this goal, knowing what you know right now, how supportive are you of this goal?**

Most residents surveyed indicated that residential clean energy and protecting the environment were top priorities. Over 90 percent of respondents thought it was important that all residents received the benefits of clean and renewable energy and that the environment should be protected. A significant majority of respondents also supported the creation of clean and local jobs to improve residential health and equity.

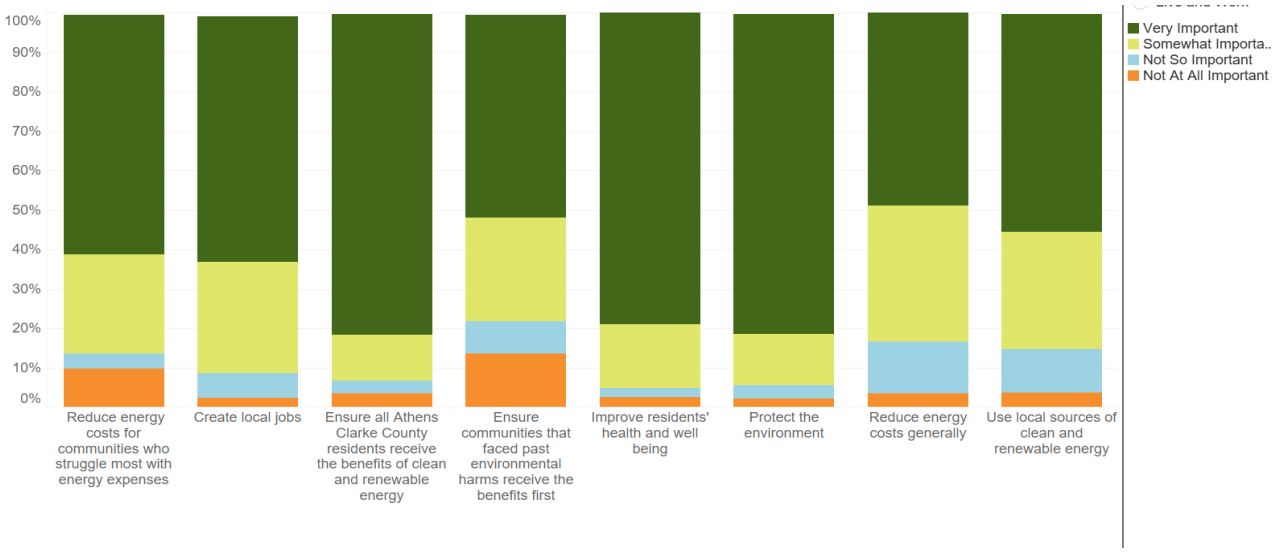


**Figure 7.2 In your opinion, how important is it for Athens Clarke-County to also prioritize each of the following as we transition to 100% clean and renewable energy?**

When asked about switching to clean and renewable energy for their homes, most respondents (80 percent) said they would switch to renewable energy if given the opportunity. Of the total respondents, 5 percent said they already did, indicating that current demand for renewable energy exists across ACC.

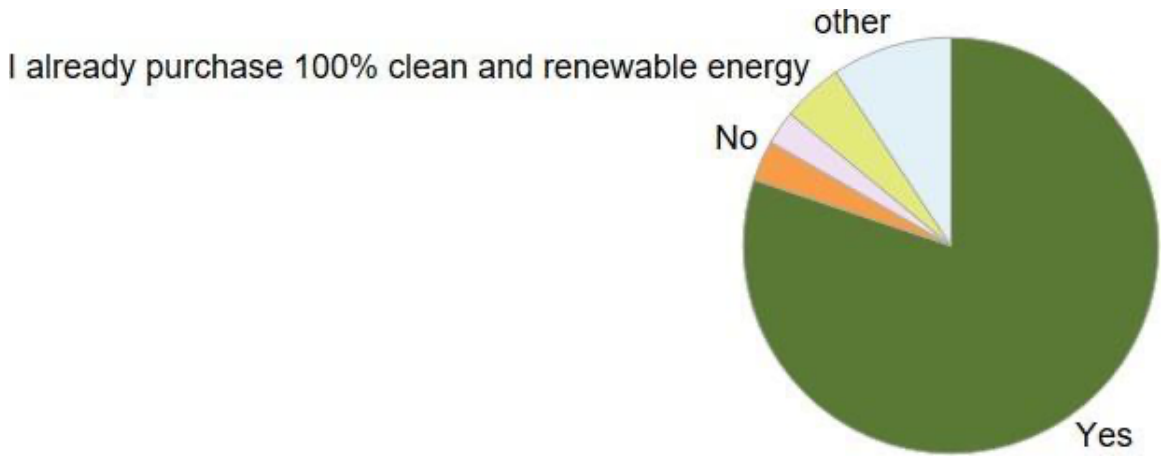



**Figure 7.3 For your home electricity consumption, would you consider moving to 100% clean and renewable energy?**

Most Athens survey participants support local clean and renewable energy such as solar (93 percent) and energy efficiency (75 percent). Energy efficiency and renewable energy could be expanded and have a clear role in creating green jobs. Many respondents expressed concern over renewable energy credits (RECs) stating that they should be purchased as little as possible to achieve the Athens 100% Clean and Renewable Energy goals.

## Online Survey: Athens' Business Leaders

Along with ACC residents, business owners were also asked for their thoughts toward a clean and renewable energy future. Business owner respondents hailed from the construction industry, information industry, and retail and food services. Several businesses responded, ranging from 1 to 100 or more full-time employees.

Of these responses, nearly every single business supported a goal of 100 percent clean and renewable energy across ACC (Figure 7.4).

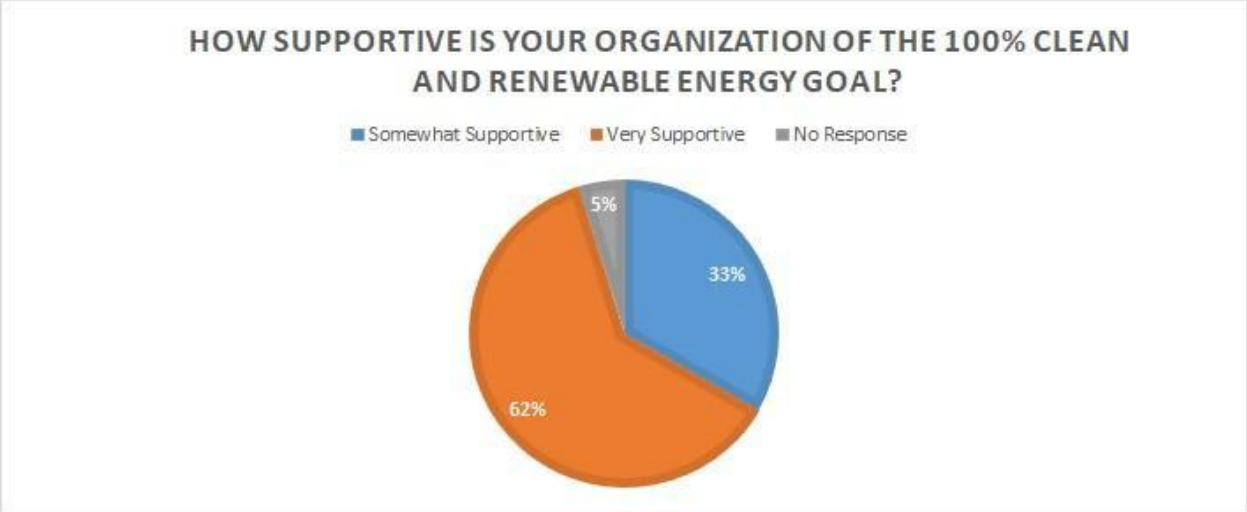



**Figure 7.4**
**How supportive is your organization of the 100% Clean and Renewable Energy goal?**

When asked how business leaders would like to move forward with this goal, almost all supported training, workshops, and webinars for their staff and upper management (Figure 7.5).

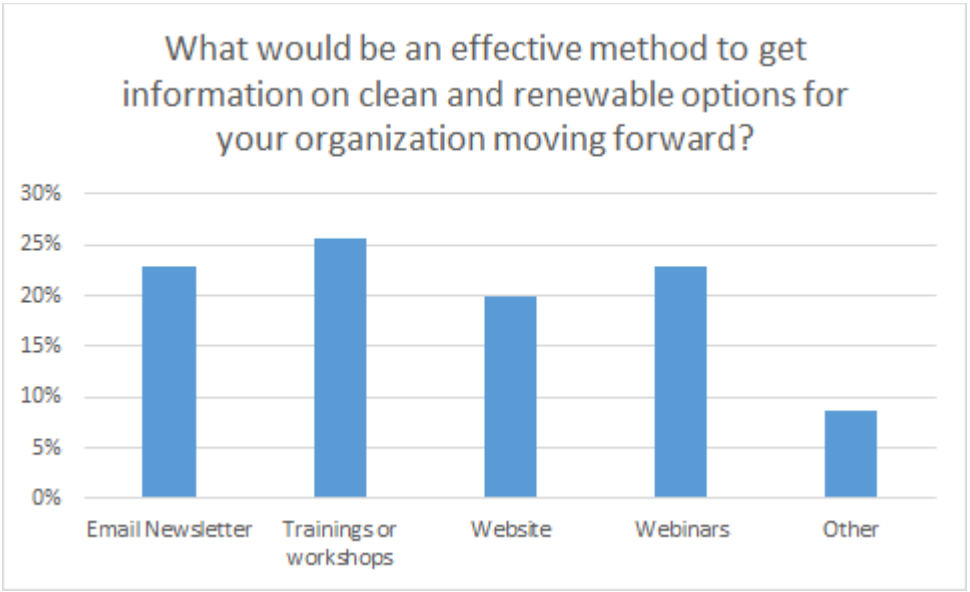


**Figure 7.5**
**Has access to reliable information on clean and renewable options been a barrier to your organization moving forward? If so, what would be an effective method to get this information to your organization?**

These survey results indicate that both ACC residents and business owners strongly support the 100% Clean and Renewable Energy goal that has been proposed, and also, support a green economy that will protect the health of residents and the environment.

## Lessons Learned

The Clean and Renewable Energy Action Plan has been one of the most ambitious initiatives undertaken by the Mayor and Commission. Developing a framework for a plan of action that spans multiple departments, community partners, and decades necessitates a comprehensive, inclusive, aspirational, and relevant approach for the entire community. Every aspect of this effort was impacted by the arrival of the COVID-19 pandemic, thus, increasing the challenges of the initial planning effort was. At this time, numerous challenges continue to impact goals and resources as the Athens community struggles to recover from the COVID-19 pandemic.

## Engagement in a COVID-19 World

The stakeholder engagement process was initially planned as an extensive, person-to-person engagement effort. As initial planning efforts were moving into the implementation phase, the expanding COVID-19 pandemic heavily impacted the engagement plan and resulted in a complete re-evaluation and re-structuring of the effort in order to accommodate the safety needs of the community. This meant transitioning from a heavily in-person engagement strategy, with door-to-door contact, event tabling, and $100^{+}$ person meetings to a complete virtual engagement strategy. Starting with the small virtual footprint available at that time, ACCGov, the Sustainability Office, and the CAB were forced to develop new strategies and dramatically expanded efforts to reach and engage a diverse population.

The Sustainability Office recognized and tried to overcome multiple challenges, including the fact that certain populations within Athens-Clarke County would be missed in the engagement process due to barriers inherent to virtual communication. While there were many successes, conditions that discourage and limit engagement could not be overcome. Impacts of virtual engagements and challenges continue to be felt most by traditionally marginalized areas of the community.

Barriers include:

- Lack of resources and a lack of general understanding regarding communication via a virtual platform that existed during the initial phases of the effort
- Lack of access to stable Wi-Fi by many
- Lack of access to hardware and/or understanding of technology (especially among older community members)
- Gaps/lack of connection with diverse media outlets
- Lack of a community engagement "guidebook"
    - Resources were not available* to develop or share guidelines that outline a process for ACCGov departments to reach all areas of the community, thus, leaving each department to create their own process

*The position of Community Engagement Specialist was funded in the Public Information Office FY22 budget. One of the duties of this position is to develop a public engagement process and guidebook.

- There was limited funding for educational efforts needed to create a baseline and foundational understanding of a complex issue (i.e., the energy ecosystem).
    - To most people in the community, the energy ecosystem is a mystery whose relevance to everyday life is either accepted as the way things are or is something beyond their control.
    - There is a lack of understanding of the energy ecosystem including topics such as: energy burden, the impact of weatherization, reading a power bill, and the role and importance of the Public Service Commission.
    - Educational initiatives that establish clear and commonly understood, foundational information help community members understand the relevance of the energy ecosystem and how it influences their personal and their community's future.

## Recommendations

For future engagement initiatives the following is recommended:

- Investigate the degree of community understanding of the issue and develop/fund key educational initiatives accordingly (pre-launch, during, and post-launch)
    - Such efforts will help community members understand the relevance and will significantly enhance engagement
- Work with the Inclusion and Public Information Offices to develop engagement processes that utilize multiple platforms and provide pathways that reach populations often overlooked or left out (i.e. minority, elderly, people with disabilities, etc.)
- Include funding for staff resources that enhance one-on-one contact and engagement, facilitate opportunities to develop relationships, communication, and build trust

## Other Lessons During the Engagement Process

Because stakeholders had a chance to ask questions or communicate uncertainty related to the event, phone calls proved to be more effective in engaging with stakeholders than sending emails. In future engagement, it is recommended to send an introductory email, and follow up with personal contact via phone calls to directly connect with the organization or individual. An engagement schedule to track responses is also strongly recommended.

In the stakeholder listening sessions, the Sustainability Office connected with the Family Connection-Community group, which works with neighborhood leaders across the Athens community to gauge their community's needs and resources. Through this type of connecting and assistance, the Office was able to acquire perspectives that did not come up in public meetings. In the future, it would be beneficial to include groups like Family Connection-Community and neighborhood leaders early in the engagement process to help reach communities that ACCGov departments and offices traditionally have not been able to access. These groups are especially hard to reach in a virtual space without communication channels being established beforehand.

## Index of Organizations and Businesses Contacted

Listed below are the organizations that the Sustainability Office and partners reached out to during the engagement process. Individual community members who also engaged with the Sustainable Office are not listed here.

| | |
|---|---|
| Walton EMC | ABB Motors |
| East Athens Development Corporation | Architectural Collab |
| Action, Inc. | Athens Area Chamber of Commerce |
| Jackson EMC | Benson's Hospitality Group, Benson's Hospitality: Hilton Garden Inn, Springdale Suites |
| W&E Engineering | Beverage South |
| Georgia Power Company | Boehringer Ingelheim Animal Health |
| 100% Athens | Carrier Transicold |
| Athens Area Chamber of Commerce | Northeast Georgia Black Chamber & Owner, Mack & Payne Funeral Home |
| Oconee Rivers Audubon Society | Chik-fil-A Athens: Alps, Downtown, East Side |
| BikeAthens | Creature Comforts Brewing |
| Architectural Collaborative | Fiber Visions |
| Athens-Clarke County Community Tree Council | Edward Jones Investments |
| Georgia Climate Change Coalition (GC3) | Golden Pantry Food Stores, Inc. |
| Oconee River Land Trust | Heyward Allen Cadillac |
| Upper Oconee Watershed Network | Joiner & Associates (Property Management) |
| Economic Justice Coalition | Piedmont Athens Regional Medical Center |
| UGA Sustainability | Publix |
| University of Georgia | RAI |
| Keep Athens-Clarke County Beautiful | Rashe's Cuisine |
| Athens-Clarke County Leisure Services | Saint Mary's Healthcare System |
| Athens Immigrant Rights Coalition | SKAPS |
| Athens Area Habitat for Humanity | Terrapin Beer Company |
| Athens Area Homeless Shelter | The National |

| | |
|---|---|
| The Linnentown Project | Athens Apartment Association |
| Alliance for a Social Bill of Rights | W&A Engineering |
| STEMulate | Barberitos |
| Scana Energy | burton + Burton |
| Score | ByoPlanet |
| Peachy Green Clean Coop | CAT |
| Hancock Community Development, Inc | Chrysler Jeep Dodge |
| Athens Anti-Discrimination Movement | Engineered Fabrication, Inc |
| Historic Athens/Hands on Historic Athens | Hendershot's |
| Bigger Vision of Athens | Pilgrim's Pride |
| Family Connection-Communities | Family Connection of Athens Neighborhood Leaders |
| Athens Area Community Foundation | Habitat for Humanity |
| Rites of Passage | Athens Community Council on Aging |
| Multiple Choices | Athens Housing Authority |
| Hancock Community Development Corporation | Athens Land Trust |
| Destined Learning | Casa de Amistad |
| Cultivating a Legacy | Green Jobs Pipeline Group |
| Clarke County School District | Interfaith Clergy Partnership of Greater Athens |
| City of Winterville | Green Job Pipeline |
| Rayle EMC | Culinary Kitchen |
| Condor Chocolates | Maepole |
| Farm to Neighborhood | Seabear |

# appendix two | Policy Pathway Tiers

## Policy Pathway Tiers

As part of the review of the Policy Pathways, the consultant team used Greenlink's Clean Energy Policy Toolkit to help ACCGov and the CAB evaluate the potential for success. The consultant team generated a ranking system based on priorities indicated by ACCGov, the CAB, and community engagement input. This evaluation process grouped the Policy Pathways into three tiers based on priorities, the potential for success, community impact, cost, and impact on equity:

**Tier 1 — Most Urgent for Success (highest):** These pathways are relatively easy to implement and/or generate the highest climate and equity benefits. These can be implemented and tracked for success in the near future.

**Tier 2 — As Opportunities Present Themselves:** While sharing characteristics with Tier 1, these pathways are more difficult to implement in the short term. This may be due to a lack of available funding, inherent and complex legal and/or logistical challenges, or not having broad community support at this time.

**Tier 3 — Obstacles Ahead:** These pathways are the most difficult to implement because of financial or legal/regulatory barriers. Items ranked as Tier 3 will be revisited in the future, as policies or laws change.

## Policy Pathways — Tier 2 & 3

As previously discussed, consistent with the Mayor and Commission's focus on equity, an equity score of ±2 was assigned to each policy pathway. A score of "2" indicates that the selected policy or action could greatly improve equity in the process and outcome, while a score of "-2" indicates the policy will likely worsen equitable processes and outcomes.

| | |
|---|---|
| **+2** | Very high impact on energy burden or equity related issues, likely to reduce inequity. |
| **+1** | High impact on energy burden or equity related issues, potential reduce inequity. |
| **0** | No impact on energy burden or equity related issues. No potential to exacerbate equity or inequity. |
| **-1** | Low impact on energy burden or equity related issues, potential to exacerbate inequity. |
| **-2** | Very low impact on energy burden or equity related issues, likely to exacerbate inequity. |

# appendix three | Policy Toolkit Action Area

## Chart of Pathways and Tiers

| Action Areas | Tier | Equity Score | Action Area Name | Action Area Description |
|---|---|---|---|---|
| Financing | 1 | 2 | Revolving Clean Energy Loan Fund | Self-replenishing clean energy fund from the municipality or state. Typically applies to government properties only. |
| Financing | 1 | 2 | Community Energy Fund | Fund consisting of percentage of franchise fees paid ACCGov by Georgia Power, to be used to fund community clean energy projects. |
| Financing | 1 | -1 | Green Building Rebate for New Construction | Rebate proportional to performance level achieved |
| Financing | 1 | 1 | Energy Storage Bulk Purchasing | Partner to reduce costs through bulk purchasing on energy storage equipment. |
| Financing | 1 | -1 | Special Purpose Local Options Sales Tax | Explore an incremental sales tax that provides funding for capital efficiency and renewable expenditures. |
| Information | 1 | 0 | Audit Building Energy Use | Implement commercial building energy audit efforts. |
| Information | 1 | 0 | Track, Publish and Review Municipal Energy Usage | Provide energy efficiency planning and design approaches for local government operations through benchmarking, transparency and auditing. |
| Programmatic | 1 | 1 | Clean Energy Task Force | Establish a community clean energy task force to identify ongoing renewable energy opportunities and provide accountability to the clean energy goals. |
| Programmatic | 1 | 0 | Bundled Clean Energy | Bundling energy efficiency (EE) financing along with renewable energy (RE). |
| Programmatic | 1 | 0 | Providing Solar Energy Procurement Agreement | A Solar Energy Procurment Agreement (SEPA) is a financial agreement in which a third-party solar developer owns, operates, and maintains a solar PV system. Users of the PV system enjoy the benefits of solar without providing upfront capital costs by paying the third-party owner a fixed rate of energy. |
| Programmatic | 1 | 0 | Adopt targets for percentage of facilities equipped with energy storage | Set goals for on-site energy storage at municipal facilities. |
| Programmatic | 1 | 1 | Solar Co-op / Solarize Campaign | Group of homeowners within close proximity to each other obtain competitive solar installations through combined purchasing power. |
| Regulatory | 1 | 0 | Benchmarking and Transparency Program | Create a benchmarking and transparency program for building energy and water efficiency. "Benchmarking" refers to when a building owner understands their current energy consumption to refer to as a baseline. "Transparency" refers to publishing their building's energy performance so that other building owners can benchmark their progress against. |

| | | | | |
|---|---|---|---|---|
| Regulatory | 1 | 0 | Routine update of Sustainable Building Policy | Set a cycle for revisiting sustainable building policy for municipal buildings to allow for incorporation of new best practices in sustainable building design in municipal projects. |
| Regulatory | 1 | 1 | Buildings Energy Code | Adopt a buildings code that requires new buildings to be more energy efficient than current state codes. |
| Regulatory | 1 | 1 | Update Building Energy Codes and Increase Code Enforcement | Increase energy efficiency in commercial buildings through updated energy codes and increased enforcement. |
| Regulatory | 1 | 1 | EV readiness ordinance | Law to require all new construction to be built to accommodate EV charging infrastructure for an identified percentage of parking spaces. |
| Regulatory | 1 | 2 | Take active role in intervening and advocating in Georgia Power Integrated Resource Plan (IRP); pursuing policies to advance clean energy in the State Legislature | Engaging in state-level regulatory processes around energy generation and clean energy programming. |
| Technology | 1 | 0 | Municipal Efficient Equipment Procurement Policy | Require that products that require the use of energy and are purchased by municipality meet efficient equipment standards. |
| Technology | 1 | 0 | Install LED Streetlights and Traffic Signals | Invest in street and area lighting in order to improve municipal energy efficiency in cities. |
| Technology | 1 | 0 | Improve Lighting in Municipal Buildings | Take advantage of savings opportunities through high-efficiency interior and exterior lighting solutions in municipal properties. |
| | 1 | 1 | Advocate for microgrid policy change | Microgrids are self-sufficient energy systems that can cover smaller geographical footprints, such as college campuses or hospital grounds. |
| Financing | 1 | 1 | Incentives Education Programming | Promoting residential and business awareness of existing programs and opportunities. |
| Information | 1 | 1 | Community Engagement and Communication on Clean Energy Efforts | Ongoing outreach to keep the general public aware of progress towards sustainability goals, while continuing to receive community input. |
| Programmatic | 1 | 2 | Workforce Training Collaboration | Collaborate with technical colleges and trades to develop a clean energy workforce |
| Programmatic | 1 | 2 | Clean Energy and Equity Planning | Ongoing outreach to keep the public aware of progress towards an energy efficient and equitable goal and to continue receiving citizen input |
| Programmatic | 1 | 2 | Advance Apprenticeship Programs | Advance clean energy apprenticeship programs potentially through SPLOST procurement requirements. |
| Programmatic | 1 | 2 | Educational Programs targeted towards the business community | Provide education for the business community around clean energy practices, energy efficiency, and water reduction strategies. |
| Financing | 1 | -1 | Identify LOCAL Renewable Energy Credit Procurement | Organized bulk purchases of credits for renewable energy generation |

| | | | | |
|---|---|---|---|---|
| Financing | 1 | 0 | Divestment of ACC Pension fund away from fossil fuel investements | Reallocate any ACCGov employee pension fund holdings connected to fossil fuels into alternative holdings, ideally investing in green energy. |
| Information | 1 | 0 | Update and Publish Greenhouse Gas Inventories | Create a streamlined way to update existing or new inventory for tracking greenhouse gas emissions |
| Information | 1 | 2 | Study of addressing water loss in high-loss meters (on ACCGov side of meter) | Pursue study of water meters to identify meters that have high-loss history. |
| Technology | 1 | 1 | Improve Wastewater Energy Efficiency | Enhance GHG emission reduction strategies that local governments can reasonably employ; specifically energy efficiency in water and wastewater facilities. |
| Technology | 1 | 0 | Expand Wastewater CHP | Use more combined heat and power (CHP) technology at wastewater plants |
| Technology | 1 | 2 | Targeted heat island efforts for low-income and underserved communities | Pursue efforts to promote increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues |
| Financing | 1 | 2 | Public transit investments to expand service and increase passenger miles traveled | Improve public transit speed, reliability and user experience |
| Programmatic | 1 | 1 | Decrease parking requirements | Boost ridership per transit vehicle around affected transit stations through density |
| Programmatic | 1 | 2 | Implement high priority segments in the walking and bicycling network | Increase the amount of walking and biking infrastructure in order to reduce motorized trips |
| Programmatic | 1 | 1 | EV education and incentives | Provide investments in electric vehicle education programs to increase the adoption of EV fleets |
| Programmatic | 1 | 0 | Expansion of landfill gas capture system | Restart practice of capturing landfill gas emissions to be used for transportation fuels |
| Regulatory | 1 | 0 | Fleet conversion goal for 100% completion by 2035, with differentiation between light duty fleet (cars), and medium/heavy duty fleet (haulers, waste trucks) | Create and adopt a goal to fully convert all municipal fleet vehicles to 100% electric |
| Technology | 1 | 0 | Electrify city fleets and buses | Electrify municipal internal combustion vehicles and buses |
| Technology | 1 | 1 | Ubiquitous EV charging infrastructure (especially target multi-family and low income) | Provide charging stations throughout the city to promote the adoption of electric vehicle sales |
| Technology | 1 | 2 | Piggy-back on Athens in Motion and Greenway Network Plan | Utilize the identified goals and programs that are shared across all plans to reduce duplicating efforts and increase effectiveness and reach of the goals. |
| Financing | 2 | 0 | PACE - Commercial | Property-Assessed Clean Energy (PACE): A program that finances energy efficiency programs and renewable energy upgrades to commercial buildings through the use of property taxes |

| | | | | |
|---|---|---|---|---|
| Financing | 2 | -1 | PACE - Residential | Property-Assessed Clean Energy (PACE). A program that finances energy efficiency programs and renewable energy upgrades to residential buildings through property taxes |
| Financing | 2 | 1 | Energy Savings Performance Contracts (ESPCs) | Partnership between building owners and an energy service company that encourages energy savings and facility improvements with no upfront costs to the owner |
| Financing | 2 | 0 | Solar Energy Purchase Agreement (SEPA) | Sign a long-term contract to buy solar built on municipal and commercial rooftops |
| Information | 2 | 0 | Exploration of Greywater and Rainwater Harvesting Incentives | Investigate opportunities to increase greywater use and rainwater harvesting in order to reduce local water usage |
| Programmatic | 2 | 1 | Education for first responders and building officials on energy storage, electric vehicles, and solar installations | Provide resources and training to first responders on new complexities created by battery storage on home energy systems and vehicles, solar on roofs, vulnerability to fires, emergency response strategies, etc |
| Programmatic | 2 | 0 | Energy Operations Manager Position | Have a full-time employee to oversee energy operations for municipal properties |
| Programmatic | 2 | 0 | Formalize a policy to deploy solar (and storage) with new pump stations. | Locate more solar (and battery storage) at PUD water pumping and lift stations |
| Programmatic | 2 | 0 | Voluntary Energy Efficiency and Conservation Program | A program where leading businesses, manufacturers, local and state governments voluntarily commit to improving the energy efficiency of their building portfolio over time |
| Programmatic | 2 | 1 | Identify incentives for water conservation retrofits | Provide resources to fund retrofits to more water efficient fixtures, water reuse (greywater) practices and/or develop policies and programs to encourage voluntary action |
| Programmatic | 2 | 1 | Identify targets for water reuse system | Set targets for water reuse, including greywater and purple pipe programs |
| Technology | 2 | 0 | Develop and Deploy Smart Grids and/or Meters | Allow households and businesses to monitor and adapt their energy usage patterns through smart-grid and smart-meter technologies. |
| Technology | 2 | 0 | Floating solar | Investigate and install floating solar on suitable water bodies. |
| Technology | 2 | 1 | Renewable Natural Gas opportunities in buildings & transport | Explore opportunities to use alternative fuels, such as renewable natural gas for power generation in buildings and/or transportation |
| Information | 2 | 0 | Water Efficiency Business Certification | Encourage business owners to obtain a water-efficient certification for their buildings |
| Programmatic | 2 | 2 | Workforce Training Collaboration | Advance apprenticeship programs (potentially through SPLOST procurement requirements, using targeted RFP/RFQ language) |

| | | | | |
|---|---|---|---|---|
| Programmatic | 2 | 1 | Energy Efficiency Demonstration Programs | Support or implement innovative energy efficiency projects |
| Financing | 2 | 2 | Round-It-Up Energy and/or Water Efficiency Program | Fund low-income efficiency work by "rounding up" participant utility bills to the nearest dollar |
| Financing | 2 | 1 | Non- Local, GEORGIA, Renewable Energy Credit Procurement | Organized bulk purchases of credits for renewable energy generation |
| Financing | 2 | 0 | Carbon Offsets | Compensating for local GHG emissions by canceling out emissions somewhere else in the country through the purchase of carbon offset certificates |
| Information | 2 | 1 | Education on Water-Energy nexus | Provide education on the important relationship between energy and water, for the community to better understand the importance of the plan and incoming programs |
| Technology | 2 | 2 | Reduce Urban Heat Island Effect (Pursue efforts to increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues (Residential, Commercial, Low-Income Residential) | Pursue efforts to increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues |
| Financing | 2 | 1 | Commuter Carpooling Incentives | Reduce commuting trips and shift commuting to transit & higher-occupancy vehicles through carpooling, parking incentives, and transit incentives |
| Programmatic | 2 | 1 | Transportation Behavioral Nudging | Program to nudge usage of transit (ex. texting system to determine if transit or driving is more time efficient) |
| Programmatic | 2 | 1 | Increase new mobility options (e.g. bikeshare, electric bikeshare) | Reduce motorized trips by providing bikeshare options |
| Regulatory | 2 | 1 | High frequency public transit network | Define and expand the existing public transit network to increase the efficiency of routes and ridership |
| Regulatory | 2 | 2 | Downtown parking management and pricing | Increase parking fees in high congestion zones to encourage ridesharing or public transportation use |
| Technology | 2 | 2 | EV Carshare | Create a program that would allow participating members of the public to 'check out' EVs for driving around Athens |
| Technology | 2 | 2 | ACC income-based assistance, through green bank, for EV purchasing and fleet conversion | Funding for EV from green bank provided to households or businesses that meet income criteria |
| Financing | 3 | 2 | On-Bill Financing | Allows the utility to absorb the upfront cost of a clean energy upgrade, incrementally repaid by the utility customer each billing period |
| Financing | 3 | 2 | Promote 'Green' Loans | Promote effective bank loan approaches and practices to support renewable energy and energy efficiency projects |
| Financing | 3 | 0 | Virtual Power Purchase Agreement | A renewable energy contract to provide a financial hedge against energy price fluctuations |

| | | | | |
|---|---|---|---|---|
| Financing | 3 | 0 | Georgia Power Commercial Efficiency Custom Rebate Programs | Reduces the cost of energy efficient technologies and upgrades |
| Financing | 3 | 0 | Utility Commercial Incentives | Tools and resources provided by the utility to business owners that help commercial customers save money and reduce energy usage provided by the utilities |
| Financing | 3 | 1 | Utility Residential Incentives | Tools and resources provided by the utility to residential homeowners that help save money and reduce energy usage provided by utilities |
| Programmatic | 3 | 1 | Explore opportunities for ground source heat pumps | Identify pathways to promote use of ground source heat pumps in new buildings and/or at time of equipment replacement in existing buildings to promote building electrification |
| Programmatic | 3 | 2 | Policy to address high loss water meters | Policy designed to minimize water loss in lines entering buildings |
| Regulatory | 3 | -1 | Net Zero Energy Code | Phase-in energy codes that require new buildings to provide as much energy to the grid as they consume. |
| Technology | 3 | 0 | Develop Local Micro-Grids for Critical Infrastructure | Partner with utility to develop microgrid projects; provide local leaders with an understanding of what microgrids are and how they can serve communities |
| | 3 | 0 | Net Zero Energy demonstration project to demonstrate Net Zero Energy Codes | Project for ACCGov facility, such as Athens Library, to demonstrate net zero construction |
| Programmatic | 3 | 1 | Community Solar | A solar power plant that shares electricity across more than one property |
| Regulatory | 3 | 0 | Community Choice Aggregation | The municipality purchases electricity from a power generation source on behalf of residents and businesses within their community |
| Financing | 3 | 1 | Water Efficiency Bulk Purchasing | Reduce cost by bulk-purchasing water-saving equipment |
| Financing | 3 | 1 | Non-Local, NATIONAL, Renewable Energy Credit Procurement | Organized bulk purchases of credits for renewable energy generation |
| Regulatory | 3 | -1 | Net Zero Water Code | Phase-in code requirements that new buildings match total water consumed with water obtained from rain, reuse, or returned to the original source |
| Programmatic | 3 | 2 | Upzoning near transit stations | Boost ridership per transit vehicle around affected transit stations through density |
| Programmatic | 3 | -1 | Market transformation programs to accelerate transition to EVs | Financial incentive program to increase EVs adoption |
| Regulatory | 3 | 1 | Low emissions zones (LEZ) | Create areas where high emitting vehicles are restricted at all times or during certain hours of the day |
| Regulatory | 3 | -1 | Congestion pricing/Go Zones | Surcharge motor vehicle drivers during peak congestion times to encourage alternative mobility choices |
| Technology | 3 | 0 | Electric Vehicle (EV) Battery Reuse | Recycling EV batteries in order to provide electricity services and resilience value to the grid |
| Programmatic | | 0 | Municipal Energy Task Force | Establish a clean energy task force to identify ongoing municipal clean energy opportunities |

# TIER ONE | Buildings and Energy Pathway

## Revolving Clean Energy Loan Fund
**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Self-replenishing clean energy fund from the municipality or state. Typically applies to government properties only.

**ATHENS CONTEXT** — While not a revolving loan fund, the SPLOST allocation for clean energy improvements in ACC is a somewhat similar mechanism for creative financing of municipal energy projects.

**PROS** — Provides low-to-no interest loans to fund clean energy improvements, and can be designed to suit local priorities and circumstances. This can be used for municipal properties only or can be designed to fund projects city-wide.

**CONS —** Requires up-front capital costs. The logistics of government administering a loan program will require staffing and resource infrastructure buildout (or development of a 3rd-party implementer), program design and resource allocation requires value-setting and prioritization.

## Community Energy Fund
**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Fund consisting of percentage of franchise fees paid ACCGov by Georgia Power, to be used to fund community clean energy projects.

**ATHENS CONTEXT** — This is a great opportunitiy to fund clean energy projects, such as community solar, or increase investments toward energy efficiency.

**PROS** — Creates new funding source for community energy projects.

**CONS —** Availability of funds is dependent on state of the economy.

## Green Building Rebate for New Construction
**EQUITY SCORE:** -1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Rebate proportional to performance level achieved

**ATHENS CONTEXT** — ACCGov has a program to waive water/sewer interconnect fees for affordable housing. ACCGov could develop an incentive-based green building code that focuses on energy and water conservation.

**PROS** — Encourages greener building practices.

**CONS —** Applies only to new construction (not existing buildings), so is does not impact majority of buildings in Athens. It also requires ACCGov funds to pay for rebates.

## Energy Storage Bulk Purchasing
**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Partner to reduce costs through bulk purchasing on energy storage equipment.

**ATHENS CONTEXT** — ACCGov has never bulk-purchased energy storage equipment but could be a key partner in any future partnerships due to scale of ACC properties.

**PROS** — Takes advantage of economies of scale to save money on per-unit cost of battery storage and can simplify selection/purchasing process for consumer if it is done in a like the solarize campaigns.

**CONS —** Administering a bulk purchase program would take time and resources and would require some level of administrative overhead.

## Special Purpose Local Options Sales Tax
**EQUITY SCORE:** -1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Explore an incremental sales tax that provides funding for capital efficiency and renewable expenditures.

**ATHENS CONTEXT** — ACCGov already has an active SPLOST in place for infrastructure projects with an allocation for muni CE projects. SPLOST funds aren't currently eligible for non-municipal projects.

**PROS** — This is a well-established mechanism to raise funds for projects and can be time-bound, creating flexibility to iterate on as progress is made. Historically there is broad support for SPLOST in ACC.

**CONS —** SPLOST projects must be maintained as a public

facility under public ownership (but can be transferred to private ownership through sale). Involves levvying additional taxes on residents, for which public support may vary. Only a fraction of proposed projects are able to be implemented.

## Audit Building Energy Use

**EQUITY SCORE:** 0 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Implement commercial building energy audit efforts.
**ATHENS CONTEXT** — No policy in place at this time, but could be used to inform commercial building owners of their energy consumption and provide energy savings tips.

**PROS** — This provides a better understanding of energy efficiency needs within a building and identifies energy conservation and cost-saving opportunities.

**CONS —** Requires in-house energy auditing expertise or hiring external energy auditor, which does have an up-front cost.

## Track, Publish and Review Municipal Energy Usage

**EQUITY SCORE:** 0 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Provide energy efficiency planning and design approaches for local government operations through benchmarking, transparency and auditing.

**ATHENS CONTEXT** — ACCGov currently benchmarks buildings in ENERGY STAR Portfolio Manager but has not yet disclosed energy performance publicly.

**PROS** — Transparency in government builds trust, leadership by example, and shows the community the progress made in making ACCGov buildings more efficient. Overtime, this allows the community to see government clean energy policies in action.

**CONS —** Educational materials need to be provided to ensure the community understands the data being shared.

## Clean Energy Task Force

**EQUITY SCORE**: 1 | **ACTION AREA**: PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Establish a community clean energy task force to identify ongoing renewable energy opportunities and provide accountability to the clean energy goals.

**ATHENS CONTEXT** — The Community Advisory Board (CAB) already serves this function. The role of the CAB during the creation of the Clean Energy Plan was to guide policy leaders toward creating an equitable and actionable report.

**PROS** — A good community engagement indicator that teaches residents and business owners about the clean energy possibilities in their community.

**CONS —** Compensation for members of this task force should be considered in order to remain equitable.

## Bundled Clean Energy

**EQUITY SCORE**: 0 | **ACTION AREA**: PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Bundling energy efficiency (EE) financing along with renewable energy (RE).

**ATHENS CONTEXT** — This policy mechanism would streamline energy efficiency and renewable energy workloads so residents and business owners could see impactful results sooner.

**PROS** — Allows savings from energy efficiency improvements to fund higher-cost renewable energy investments, making this an equitable policy.

**CONS —** Costs for renewable energy and energy efficiency need to be considered.

## Providing Solar Energy Procurement Agreement

**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — A Solar Energy Procurment Agreement (SEPA) is a financial agreement in which a third-party solar developer owns, operates, and maintains a solar PV system. Users of the PV system enjoy the benefits of solar without providing upfront capital costs by paying the third-party owner a fixed rate of energy.

**ATHENS CONTEXT** — ACCGov could provide a service as a provider of SEPAs to interested members of the community.

**PROS** — Makes solar more affordable for all levels of income.

**CONS —** Implementation logistics and project administration will require up-front setup and capitalization of funds.

## Adopt targets for percentage of facilities equipped with energy storage

**EQUITY SCORE:** 1 | **ACTION AREA**: PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Set goals for on-site energy storage at municipal facilities.

# TIER ONE | Buildings and Energy Pathway

**ATHENS CONTEXT** —Currently participating in GEFA assessment of solar plus storage opportunities.

**PROS** — Enhances resilience of power supply at municipal facilities.

**CONS —** Upfront cost, maintenance, and siting logistics take time.

## Solar Co-op / Solarize Campaign

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Group of homeowners within close proximity to each other obtain competitive solar installations through combined purchasing power.

**ATHENS CONTEXT** — ACC has undertaken successful Solarize campaigns in years past and can continue to do so in the future.

**PROS** — Bundling multiple customers into larger-scale procurement leads to bulk pricing.

**CONS —** Building conditions, rooftop solar access, and home ownership limit access to campaign.

## Benchmarking and Transparency Program

**EQUITY SCORE:** 0 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Create a benchmarking and transparency program for building energy and water efficiency. "Benchmarking" refers to when a building owner understands their current energy consumption to refer to as a baseline. "Transparency" refers to publishing their building's energy performance so that other building owners can benchmark their progress against.

**ATHENS CONTEXT** — ACC currently benchmarks municipal buildings only.

**PROS** — Promotes awareness of building energy performance (your own and that of your peers), shines spotlight on top energy performers, provides ACCGov with more information on energy performance of buildings in the community (which helps inform future policies and priorities), and leads to transparency and market transformation.

**CONS —** Requires building owners to collect and report on utility data which can be hard to access for multi-tenant properties.

## Routine Update of Sustainable Building Policy

**EQUITY SCORE:** 0 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Set a cycle for revisiting sustainable building policy for municipal buildings to allow for incorporation of new best practices in sustainable building design in municipal projects.
**ATHENS CONTEXT** — Sustainable Building Policy currently in place, a mechanism for revisiting over time should be considered.

**PROS** — Allows for continuous improvement of policy and technology to improve the efficiency of ACCGov staff environment.

**CONS —** Requires dedicated staff attention to ensure updates are made and enforced.

## Buildings Energy Code

**EQUITY SCORE:** 1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Adopt a buildings code that requires new buildings to be more energy efficient than current state codes.

**ATHENS CONTEXT** — ACCGov has authority to regulate building codes. Working with building owners, the Athens community, and business leaders can ensure decisions are reached in an equitable way.

**PROS** — Enhanced energy code enforcement promotes greater quality assurance and control around green building practices.

**CONS —** Limited resources often exist for code enforcement officials.

## Update Building Energy Codes and Increase Code Enforcement

**EQUITY SCORE:** 1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Increase energy efficiency in commercial buildings through updated energy codes and increased enforcement.

**ATHENS CONTEXT** — ACCGov has authority to regulate building codes. Working with building owners, the Athens community, and business leaders can ensure decisions are reached in an equitable way.

**PROS** — Enhanced energy code enforcement promotes greater quality assurance and control around green building practices.

**CONS —** Limited resources often exist for code enforcement officials.

# TIER ONE | Buildings and Energy Pathway

## EV Readiness Ordinance

**EQUITY SCORE:** 1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Law to require all new construction to be built to accommodate EV charging infrastructure for an identified percentage of parking spaces.
**ATHENS CONTEXT** — Not currently in place; will require amendments to ACC building codes and notification to Georgia Department of Community Affairs

**PROS** — Facilitates expansion of EV charging infrastructure for more invididuals.

**CONS —** Makes construction costs slightly more expensive and requires updates to the ACCGov building permitting process.

## Take active role in intervening and advocating in Georgia Power Integrated Resource Plan (IRP); pursuing policies to advance clean energy in the State Legislature

**EQUITY SCORE:** 2 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Engaging in state-level regulatory processes around energy generation and clean energy programming.

**ATHENS CONTEXT** — Athens-Clarke County intends on intervening in the next IRP in 2022 (IRPs take place on 3-year cycle).

**PROS** — Motivates the utility to supply more clean energy and deliver more energy efficiency programming to low-income residents.

**CONS —** Requires knowledgeable consultant to represent Athens' interests and requires funds and staffing resources.

## Municipal Efficient Equipment Procurement Policy

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Require that products that require the use of energy and are purchased by municipality meet efficient equipment standards.

**ATHENS CONTEXT** — Informal policy/best practices exist but no set procurement standard and specifications exist at this time

**PROS** — Reduces energy costs, GHG emissions, and operation and maintainence. There are associated public health benefits, increased water conservation, and strengthened local market for clean energy service providers.

**CONS —** Development, adoption, and implementation of updated procurement code can be difficult to manage. This would require current ACCGov contractors to change how they do business in order to qualify for ACCGov contracts.

## Install LED Streetlights and Traffic Signals

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Invest in street and area lighting in order to improve municipal energy efficiency in cities.

**ATHENS CONTEXT** — Athens has already or plans to convert 90% of their street and area lighting to LED.

**PROS** — More energy efficient and potentially more cost effective (depending on ownership of streetpoles and tariff structure paid to utility).

**CONS —** Can be a complex procurement structure depending on ownership of streetlight poles in question. Aesthetics of LED lighting can also be controversial - the color temperature as well as brightness can be important in terms of constituent comfort and enjoyment level.

## Improve Lighting in Municipal Buildings

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Take advantage of savings opportunities through high-efficiency interior and exterior lighting solutions in municipal properties.

**ATHENS CONTEXT** — 80%+ of municipal buildings have been converted to LED

**PROS** — Low-hanging fruit for energy and cost savings. Fast payback period, and is usually easy to install.

**CONS —** Does require up-front capital expense.

## Advocate for Microgrid Policy Change

**EQUITY SCORE:** 1 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Microgrids are self-sufficient energy systems that can cover smaller geographical footprints, such as college campuses or hospital grounds.

**ATHENS CONTEXT** — ACCGov can partner with the University of Georgia or local hospitals on the build out of microgrids.

**PROS** — Has the potential to provide low-cost, efficient,

clean energy.

**CONS —** Increased need for battery storage is expensive and requires space.

## Incentives Education Programming

**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Promoting residential and business awareness of existing programs and opportunities.

**ATHENS CONTEXT** — ACC is hiring an Environmental Educator in coming months, as well as planning to update website.

**PROS** — Increases participation in incentive programming and can allow for existing programs to further expand.

**CONS —** Must dedicate city resources to staff and provide educational information.

## Community Engagement and Communication on Clean Energy Efforts

**EQUITY SCORE:** 1 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Ongoing outreach to keep the general public aware of progress towards sustainability goals, while continuing to receive community input.

**ATHENS CONTEXT** — The CAB will continue to meet and oversee progress and milestones to Clean and Renewable Energy goals.

**PROS** — Fosters transparency in the planning processes and provides a continuous cycle of progress towards achieving goals. This also creates accountability framework for reaching goals and tracking progress.

**CONS —** Requires dedicated (and resourced) staffing and infrastructure to become successful long-term. Most of the success hinges on ACCGov's ability to develop and maintain a network and process for ongoing dialogue (and continuous re-examination of that process).

## Workforce Training Collaboration

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Collaborate with technical colleges and trades to develop a clean energy workforce

**ATHENS CONTEXT** — This is an ongoing process that will require ACCGov, education leaders, and business owners awareness about emerging clean energy jobs and equitable transitions.

**PROS** — Creates and strengthens a clean energy workforce and fosters economic development. This also provides an opportunity to focus on equity during training collaborations.

**CONS —** Needs to be crafted with great intentionality to avoid the dynamic of training more individuals than are actually demanded.

## Clean Energy and Equity Planning

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Ongoing outreach to keep the public aware of progress towards an energy efficient and equitable goal and to continue receiving citizen input

**ATHENS CONTEXT** — This is an ongoing effort.

**PROS** — Fosters transparency in the planning processes and provides a continuous cycle of progress towards achieving goals. This also creates accountability framework for reaching goals and tracking progress.

**CONS —** Requires dedicated (and resourced) staffing and infrastructure to become successful long-term. Most of the success hinges on ACCGov's ability to develop and maintain a network and process for ongoing dialogue (and continuous re-examination of that process).

## Advance Apprenticeship Programs

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Advance clean energy apprenticeship programs potentially through SPLOST procurement requirements.

**ATHENS CONTEXT** — This is an ongoing effort related the workforce training collaboration mentioned above.

**PROS** — Creates and strengthens a clean energy workforce and fosters economic development. This also provides an opportunity to focus on equity during training collaborations.

**CONS —** Needs to be crafted with great intentionality to avoid the dynamic of training more individuals than are actually demanded.

# TIER ONE | Community Pathway & Environment Pathway

## Educational Programs Targeted Towards the Business Community

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Provide education for the business community around clean energy practices, energy efficiency, and water reduction strategies.

**ATHENS CONTEXT** — The Athens business community is a very important player in the clean and renewable energy transition. Ensuring that business owners are equipped with clean energy knowledge is extremely important to ACCGov.

**PROS** — Engages the business community directly by providing them with training around energy efficiency and renewable energy opportunities for their businesses.

**CONS —** Requires upfront cost and administrative time to complete.

# Environment Pathway

## Identify LOCAL Renewable Energy Credit Procurement

**EQUITY SCORE:** -1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Organized bulk purchases of credits for renewable energy generation.

**ATHENS CONTEXT** — Not currently in place. Could specifically reference a goal in the plan of not only using REC's, and prioritize local and state-level RECs.

**PROS** — Purchasing them locally reduces GHG's by increasing the use of renewable energy in the state of Georgia.

**CONS —** Fossil fuels are still being used to generate a majority of electricity in Athens-Clarke County.

## Divestment of ACC Pension Fund Away from Fossil Fuel Investements

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Reallocate any ACCGov employee pension fund holdings connected to fossil fuels into alternative holdings, ideally investing in green energy.

**ATHENS CONTEXT** — Current holdings in fossil fuels are unknown.

**PROS** — ACCGov employee pension funds would no longer support efforts which directly counteract the Clean and Renewable Energy Plan. This is a simple measure to enact through an ordinance. Fossil fuel divestment has already successfully occured nationwide at both state and local level.

**CONS —** Could be poor timing due to market volatility. Alternative investments of equal return and value would need ot be located and divestment process may slow.

## Update and Publish Greenhouse Gas Inventories

**EQUITY SCORE:** 0 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Create a streamlined way to update existing or new inventory for tracking greenhouse gas emissions

**ATHENS CONTEXT** — Athens currently tracks internally, however these values have not been published.

**PROS** — Tracking and disclosing GHG emissions promotes transparency and accountability, sets baseline understanding of priority opportunities for reducing GHG emissions

**CONS —** Requires dedicated (and resourced) staffing and infrastructure.

## Study of addressing water loss in high-loss meters (on ACCGov side of meter)

**EQUITY SCORE:** 2 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Pursue study of water meters to identify meters that have high-loss history.

**ATHENS CONTEXT** — ACCGov can partner and work with the Athens Watershed Management department to develop these plans.

**PROS** — A study like this could identify water saving opportunities so that investments are not wasted.

**CONS —** Time, staffing, and costs are required to persue this type of work.

## Improve Wastewater Energy Efficiency

**EQUITY SCORE:** 1 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Enhance GHG emission reduction strategies that local governments can reasonably employ; specifically energy efficiency in water and wastewater facilities.

**ATHENS CONTEXT** — Facility audits are currently underway in municipal buildings.

**PROS** — Reduces energy consumption, GHGs, and

improves public health.

**CONS —** Requires dedicated (and resourced) staffing, and infrastructure.

### Expand Wastewater CHP

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Use more combined heat and power (CHP) technology at wastewater plants.

**ATHENS CONTEXT** — Not currently in place, however it is plausible at North Oconee water reclaimation facility.

**PROS** — On-site power generation at water treatment plants uses a local fuel source and reduces the need for power generation from outside plants.

**CONS —** Implementation and infrastructure of new technology on-site can be expensive and require more staffing.

### Targeted Heat Island efforts for Low-income and Underserved Communities

**EQUITY SCORE:** 2 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Pursue efforts to promote increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues

**ATHENS CONTEXT** — ACC has a Community Tree Council. ACCGov departments supported Priority Action of Envision Athens to inventory all county greenspace and ensure at least 20%+ of county land exists as protected greenspace. ACCGov inventory identified roughly 21% of greenspace under various forms of protection.

**PROS** — This can reduce energy consumption by naturally cooling neighborhoods through public green space and more pourous surfaces.

**CONS —** If this is not done equitably, many neighborhoods can be left out, resulting in unequal energy savings.

## Transportation Pathway

### Public Transit Investments to Expand Service and Increase Passenger Miles Traveled

**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Improve public transit speed, reliability and user experience.

**ATHENS CONTEXT** — Transit improvements are a regular focus of TSPLOST funds (TSPLOST 2018 Project # 2, 3, 4, 9). It is highly likely that TSPLOST 2023 will include further transit system improvements.

**PROS** — Improves the experience of transit riders and encourages new riders to take public transport. Decreasing cars on the road reduces GHG emissions and improves public health.

**CONS —** Requires political inertia to acknowledge what is lacking in current system.

### Decrease Parking Requirements

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Boost ridership per transit vehicle around affected transit stations through density.

**ATHENS CONTEXT** — Multi-modal Center is ACC's only major transit station. ACC Planning Commission makes recommendations to M&C and Planning Dept oversees enforcement.

**PROS** — Reduces vacancy of buildings because new owners no longer need to comply with parking requirements and increases public transportation ridership.

**CONS —** Will require changes in building codes and may reduce visitors in key downtown areas if not done properly.

### Implement High Priority Segments in the Walking and Bicycling Network

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Increase the amount of walking and biking infrastructure in order to reduce motorized trips.

**ATHENS CONTEXT** — Athens in Motion Plan with priority matrix.

**PROS** — A 5% increase in walkability can cut vehicle miles traveled (VMT) by 6.5%. A 1 mile expansion in bike lanes can induce a 0.1% increase in cycling commutes. These result in decreasing traffic and emissions.

**CONS —** There is a diminished return at a point of increase of bike lanes, meaning adding bike lanes can only increase cycling commutes so much. Cycling is currently not a popular form of transport and requires investment of public works funds to create infrastructure.

# TIER ONE | Transportation Pathway

## EV Education and Incentives
**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Provide investments in electric vehicle education programs to increase the adoption of EV fleets

**ATHENS CONTEXT** — There are no planned investments at this time.

**PROS** — Increases the rate of adoption for EVs in community and decreases emissions and use of fossil fuels.

**CONS** — It is difficult to ensure that incentives encourage new buyers that are not already considering buying a new EV. This also requires funding that can be funded through FDOT programs.

## Expansion of Landfill Gas Capture System
**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Restart practice of capturing landfill gas emissions to be used for transportation fuels

**ATHENS CONTEXT** — ACCGov had a program that has since ceased. Existing cells have been closed.

**PROS** — Provides additive fuel source for municipal fleet vehicles, reduces odors, and recycles methane emissions from the landfill.

**CONS** — Availability of sufficiently high-quality landfill gas may be limited; processing logistics may have tradeoffs in energy use and associated emissions. Expansion of recycling and composting programs in future may lead to less landfill use and reduced availability of landfill gas.

## Fleet conversion goal for 100% completion by 2035 (with differentiation between light duty fleet (cars), and medium/heavy duty fleet (haulers, waste trucks))
**EQUITY SCORE:** 0 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Create and adopt a goal to fully convert all municipal fleet vehicles to 100% electric.

**ATHENS CONTEXT** — ACC 100% clean and renewable energy by 2050 goal includes conversion of vehicles but does not identify specific interim goals and milestones.

**PROS** — Reduces emissions caused by fleet vehicles and energy costs associated with them.

**CONS** — Requires upfront capital to acquire vehicles and time to phase out old vehicles with new.

## Electrify City Fleets and Buses
**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Electrify municipal internal combustion vehicles and buses

**ATHENS CONTEXT** — TSPLOST Proposal #25 (Electrify the Fleet) includes purchase of 47 light EV and 11 EV busses for municipal use plus charging infrastructure.

**PROS** — Saves city money over time through reduced fuels. Good for the environment and public health of the area. FDOT provides grants and investments that may decrease the cost of vehicles.

**CONS** — Requires upfront capital to acquire buses and the transition can be time consuming.

## Ubiquitous EV charging infrastructure (especially target multi-family and low income)
**EQUITY SCORE:** 1 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Provide charging stations throughout the city to promote the adoption of electric vehicle sales

**ATHENS CONTEXT** — The Sustainability Office is exploring the creation of a ranking matrix for locating optimal EV charging locations within ACC.

**PROS** — Equity is increased when more people have access to low-cost or free charging stations close to their homes.

**CONS** — Can be costly and requires staffing for maintainence.

## Piggy-back on Athens in Motion and Greenway Network Plan
**EQUITY SCORE:** 2 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Utilize the identified goals and programs that are shared across all plans to reduce duplicating efforts and increase effectiveness and reach of the goals.

**ATHENS CONTEXT** — Shared goals are being identified.

**PROS** — Reduces costs by creating an efficient process for change.

**CONS** — Requires staffing and time to make sure that plans are not being duplicated.

# TIER TWO | Buildings and Energy Pathway

## PACE - Commercial

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Property-Assessed Clean Energy (PACE): A program that finances energy efficiency programs and renewable energy upgrades to commercial buildings through the use of property taxes

**ATHENS CONTEXT** — State of GA has passed PACE-enabling legislation for downtown development authorities. Each DDA would need to create its own program. Athens currently doesn't have any program (or planned program) in place. To date, Atlanta is the only city in GA to launch PACE (C-PACE only), and Macon has been in talks to develop one since approx. 2010. Atlanta program launched in 2021.

**PROS** — Provides access to financing for clean energy improvements through property taxes rather than traditional sources of credit.

**CONS** — Often not much interest from commercial building owners to use PACE financing because there are cheaper financing mechanisms exist for them, transactions tend to be slow (avg 6 months).

## PACE - Residential

**EQUITY SCORE:** -1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Property-Assessed Clean Energy (PACE). A program that finances energy efficiency programs and renewable energy upgrades to residential buildings through property taxes

**ATHENS CONTEXT** — State of GA has passed PACE-enabling legislation for downtown development authorities. Each DDA would need to create its own program. Athens currently doesn't have any program (or planned program) in place. To date, Atlanta is the only city in GA to launch PACE (C-PACE only), and Macon has been in talks to develop one since approx. 2010. Atlanta program launched in 2021.

**PROS** — Provides access to financing for clean energy improvements through property taxes rather than traditional sources of credit.

**CONS** — History of predatory lending practices by PACE program administrators. The default on PACE funds could lead to foreclosure on one's home. Consumer education is required to ensure customers understand the complex financial transaction into which they're entering. Programs in other jurisdictions have led to controversies around equity and targeting of vulnerable communities. PACE has first-priority on lien so mortgage lenders tend to be opposed.

## Energy Savings Performance Contracts (ESPCs)

**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Partnership between building owners and an energy service company that encourages energy savings and facility improvements with no upfront costs to the owner

**ATHENS CONTEXT** — Not currently in place at this time.

**PROS** — Finances improvements for bundled, large scale municipal projects that might otherwise have to be done piecemeal over a long period of time. Allows for deeper-level energy improvements by bundling low-hanging fruit with more expensive projects that often get deferred.

**CONS** — Long-term contracts with ESCOs, complex procurement structures, and shared savings model mean that the ESCO benefits from a portion of financial savings.

## Solar Energy Purchase Agreement (SEPA)

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Sign a long-term contract to buy solar built on municipal and commercial rooftops

**ATHENS CONTEXT** — The first municipal SEPA is in development at Classic Center Authority.

**PROS** — Provides financing for on-site solar at no up-front cost. Operation and maintainence (O&M) are managed by the SEPA provider.

**CONS** — Cost savings are dependent on many factors (roof size, sun access, building energy demand, utility rate structure, etc.) and may not pencil out financially for every single building type.

## Exploration of Greywater and Rainwater Harvesting Incentives

**EQUITY SCORE:** 0 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Investigate opportunities to increase greywater use and rainwater harvesting in order to reduce local water usage

**ATHENS CONTEXT** — Will be completed by September 2022

**PROS** — An effective pathway that decreases water costs and consumption on-site from off-site resources. May be particularly suitable for new construction. Rainwater harvesting can be helpful to address at a residential

level through lawn maintenance. Rain water barrels help offset pressures of wet weather events on stormwater infrastructure.

**CONS** — Repairs for leaky connection lines and basic residential plumbing systems may be higher-priority. Permitting and enforcement processes around greywater require buildout of enforcement capacity and expertise for permitting officials.

## Education for first responders and building officials on energy storage, electric vehicles, and solar installations

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Provide resources and training to first responders on new complexities created by battery storage on home energy systems and vehicles, solar on roofs, vulnerability to fires, emergency response strategies, etc

**ATHENS CONTEXT** — Not currently in place at this time, however ACCGov should partner with firestations for training collaborations.

**PROS** — Equips first responders with education on how to safely respond to emergencies which can lead to saving lives and protecting property.

**CONS** — Education and curriculum materials required.

## Energy Operations Manager Position

**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Have a full-time employee to oversee energy operations for municipal properties

**ATHENS CONTEXT** — Sustainability Office Energy Resources Coordinator Position has been created and posted. Position likely to be filled by summer 2022

**PROS** — Energy savings opportunities are more easily identified when a dedicated staffer is monitoring energy use. This provides oversight to ensure that building systems are performing at maximum efficiency, and the cost of energy manager salary is often offset in full by energy savings.

**CONS** — Requires the creation of a new staff position.

## Formalize a policy to deploy solar (and storage) with new pump stations

**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Locate more solar (and battery storage) at PUD water pumping and lift stations.

**ATHENS CONTEXT** — Cedar Creek Water Reclamation Facility ground-based solar installation serves as proof of concept.

**PROS** — Expands the use of renewable energy at PUD sites.

**CONS** — Requires funding and sufficient land/roof space for on-site solar installations.

## Voluntary Energy Efficiency and Conservation Program

**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — A program where leading businesses, manufacturers, local and state governments voluntarily commit to improving the energy efficiency of their building portfolio over time

**ATHENS CONTEXT** — Not in place at this time, however ACCGov should consider partnering with local businesses in order to educate about energy efficiency.

**PROS** — Recognizes the leaders in the community for energy and water efficiency successes and builds friendly competition to reduce utility consumption. A good vehicle for building awareness and education in the community, and helps to build momentum toward broader culture of energy efficient buildings.

**CONS** — Since it is a voluntary program, participation will likely represent <10% of commercial buildings, so overall county-wide impact may be small.

## Identify incentives for water conservation retrofits

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Provide resources to fund retrofits to more water efficient fixtures, water reuse (greywater) practices and/or develop policies and programs to encourage voluntary action

**ATHENS CONTEXT** — Public Utilities Water Conservation Office would serve as a key entity, but not currently in place at this time.

**PROS** — Increases water conservation in buildings and decreases water costs.

**CONS** — Requires incentives for potential program participant education and requires program administration logistics.

## Identify targets for water reuse system

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Set targets for water reuse, including greywater and purple pipe programs

**ATHENS CONTEXT** — Existing purple pipe program used for industrial use, cooling towers, and other non-dirnking purposes is currently in place.

**PROS** — Increases water conservation in buildings and decreases water costs.

**CONS** — The upfront costs could create barriers to entry and education for builders on these systems is needed.

## Develop and Deploy Smart Grids and/or Meters

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Allow households and businesses to monitor and adapt their energy usage patterns through smart-grid and smart-meter technologies.

**ATHENS CONTEXT** — GA Power: Near Full/ Full Implementation. Jackson EMC: Near Full/Full Implementation. Walton EMC: Partial Implementation. Rayle EMC: Partial Implementation

**PROS** — Allows for providers to respond more quickly to power outages and can help customers respond more quickly to increases in their energy rates.

**CONS** — Up-front cost and logistics of installation from the utility. Requires cooperation with the utility.

## Floating Solar

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Investigate and install floating solar on suitable water bodies.

**ATHENS CONTEXT** — Bear Creek, Chapman resevoirs, and water treatment plant could be potentially sites for floating solar.

**PROS** — Provides extra space for solar that is not being currently used by residents or businesses.

**CONS** — Can be expensive and requires higher operating and maintainence costs.

## Renewable Natural Gas opportunities in buildings & transport

**EQUITY SCORE:** 1 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Explore opportunities to use alternative fuels, such as renewable natural gas for power generation in buildings and/or transportation

**ATHENS CONTEXT** — The Clean Energy Plan serves as an initial guiding post toward tranisitioning away from fossil fuels in buildings and transportation.

**PROS** — Uses “renewable” natural gas (as opposed to fossil gas sourced through drilling).

**CONS** — The level to which this is “renewable” is subject to debate. It is a more volatile fuel than standard NG and may not suit all traditional NG appliances.

# TIER TWO | Community and Environment Pathway

## Community Pathway

### Water Efficiency Business Certification
**EQUITY SCORE:** 0 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Encourage business owners to obtain a water-efficient certification for their buildings

**ATHENS CONTEXT** — Currently, a certified Blue program focuses on water efficiency in restaurants. ACCGov is open to expanding this certification to more business types.

**PROS** — Promotes a culture of water efficiency through rewarding top performers.

**CONS** — Program administration overhead can be be costly, eligibility requirements for different building types requires expertise, and the cost of installing water efficiency improvements could be prohibitive for small and minority businesses if no resources are provided.

### Workforce Training Collaboration
**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Advance apprenticeship programs (potentially through SPLOST procurement requirements, using targeted RFP/RFQ language)

**ATHENS CONTEXT** — Ongoing

**PROS** — Creates a more clean energy workforce, fosters economic development, and provides an opportunity to focus on equity.

**CONS** — Needs to be crafted with great intentionality to avoid the dynamic of training more people than are being demanded.

### Energy Efficiency Demonstration Programs
**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Support or implement innovative energy efficiency projects

**ATHENS CONTEXT** — ACCGov contemplating high-efficiency project that would be treated as an educational resource/demonstration site; ACCGov helps give visibility to green building practices in Athens

**PROS** — Increases education building decarbonization and is used as a test case to demonstrate proof of concept, which can be shared with others.

**CONS** — Only gives visibility to building owners who can afford to undertake these type of cutting edge projects.

## Environment Pathway

### Round-It-Up Energy and/or Water Efficiency Program
**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Fund low income efficiency work by “rounding up” participant utility bills to the nearest dollar

**ATHENS CONTEXT** — Not currently in place at this time, however this will require partnership and collaboration between ACCGov and local energy utilities.

**PROS** — Funds low-income energy and water efficiency projects.

**CONS** — Administrative logistics are expensive and requires participation from the utility.

### Non- Local, GEORGIA, Renewable Energy Credit Procurement
**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Organized bulk purchases of credits for renewable energy generation

**ATHENS CONTEXT** — The use of RECs will be dependent on the decisions guided by the Athens Clean Energy Plan.

**PROS** — Reduces the use of fossil fuels by purchasing renewable offsets.

**CONS** — Benefits are not local to the region so air quality and emissions are still a problem.

### Carbon Offsets
**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Compensating for local GHG emissions by canceling out emissions somewhere else in the country through the purchase of carbon offset certificates

**ATHENS CONTEXT** — The use of carbon offsets will be dependent on the decisions guided by the Athens Clean Energy Plan.

**PROS** — A low-cost, low-effort pathway to reduce or avoid GHGs.

**CONS** — Verification is complex and it is hard to track how offsets are calculated and sourced. There is opportunity to design a local carbon offset trading market.

# TIER TWO | Environment and Transportation Pathway

## Education on Water-Energy Nexus

**EQUITY SCORE:** 1 | **ACTION AREA:** INFORMATION

**ACTION AREA DESCRIPTION** — Provide education on the important relationship between energy and water, for the community to better understand the importance of the plan and incoming programs

**ATHENS CONTEXT** — This will require ACCGov to work with local organizations to provide education and community training.

**PROS** — Increases public awareness about how their energy consumption patterns effects their water supply.

**CONS** — Most likely requires more staffing to educate and create materials.

## "Reduce Urban Heat Island Effect (Pursue efforts to increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues (Residential, Commercial, Low-Income Residential) "

**EQUITY SCORE:** 2 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Pursue efforts to increase the reflectivity of impervious surfaces and tree coverage and to address social stresses induced by urban heat island issues

**ATHENS CONTEXT** — ACC has a Community Tree Council. ACCGov departments supported Priority Action of Envision Athens to inventory all county greenspace and ensure at least 20%+ of county land exists as protected greenspace. Inventory identified roughly 21% of greenspaces are under various forms of protection

**PROS** — This can reduce energy consumption by naturally cooling neighborhoods through public green space and more pourous surfaces.

**CONS** — If this is not done equitably, many neighborhoods can be left out, resulting in unequal energy savings.

# Transportation Pathway

## Commuter Carpooling Incentives

**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Reduce commuting trips and shift commuting to transit & higher-occupancy vehicles through carpooling, parking incentives, and transit incentives

**ATHENS CONTEXT** — Oconee Street Park & Ride lot is one example that should be expanded or used as a model for other incentive programs.

**PROS** — Can have a high impact on reducing the number of miles travelled by single riders, either through telecommunication or carpooling. Decreases traffic and emissions.

**CONS** — Administration can be complicated to ensure it is actually effective.

## Transportation Behavioral Nudging

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Program to nudge usage of transit (ex. texting system to determine if transit or driving is more time efficient)

**ATHENS CONTEXT** — No system in place at this time.

**PROS** — Increases use of public transportation through decreasing single occupancy rides. Reduces traffic and emissions, improves health, and costs.

**CONS** — Requires buy-in from transit users and the ability to access technology and apps. Also requires cellular data or wifi. If there are plans to use cash rewards to incentivize rides there is additional issue of funding.

## Increase new mobility options (e.g. bikeshare, electric bikeshare)

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Reduce motorized trips by providing bikeshare options

**ATHENS CONTEXT** — ACC ordinance prevents "Sharable Dockless Mobility Devices" (including e-scooters and some electric bicyles) from being offered anywhere in ACC or being used in any public right of way or on public property. Partnerships between transportation services and ACCGov will be required in order to find a solution that works for everyone.

**PROS** — Reduces the last mile issues with public trasnport users and increases the use of public transport.

**CONS** — Regulation issues with e-bikes and scooters are present in Athens.

# TIER TWO | Transportation Pathway

## High frequency public transit network

**EQUITY SCORE:** 1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Define and expand the existing public transit network to increase the efficiency of routes and ridership

**ATHENS CONTEXT** — Transit improvements are a regular focus of TSPLOST funds (TSPLOST 2018 Project # 2, 3, 4, 9). It is highly likely that TSPLOST 2023 will include further transit system improvements.

**PROS** — Increases ridership and increases access to public transport fo low-income groups. Allows for an increase in economic development and success.

**CONS** — Requires additional funding to make changes to transit and may not see quantifiable results for 1 to 3 years. EV buses are in high demand, so availability may be an issue.

## Downtown parking management and pricing

**EQUITY SCORE:** 2 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Increase parking fees in high congestion zones in order to encourage ridesharing or public transportation use

**ATHENS CONTEXT** — This is already in place in many Athens locations: Downtown street parking and 2 parking decks (College Ave, Washington St) managed by Athens Downtown Development Authority. Classic Center Deck managed by Classic Center. UGA decks managed by UGA

**PROS** — Incentivises individuals to choose public transportation or fuel free transportation choices.

**CONS** — Can be unequitable for individuals who have no choice to park downtown for work and are not compensated by their employers.

## EV Carshare

**EQUITY SCORE:** 2 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Create a program that would allow participating members of the public to 'check out' EVs for driving around Athens

**ATHENS CONTEXT** — An opportunity to partner with local vehicle dealerships exists in order to increase electric vehicle adoption.

**PROS** — Reduces emissions and gas costs for rider.

**CONS** — Produces a liability and safety issue.

## ACC income-based assistance, through green bank, for EV purchasing and fleet conversion

**EQUITY SCORE:** 2 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Funding for EV from green bank provided to households or businesses that meet income criteria

# TIER THREE | Buildings and Energy Pathway

## On-Bill Financing

**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Allows the utility to absorb the upfront cost of a clean energy upgrade, incrementally repaid by the utility customer each billing period

**ATHENS CONTEXT** — Requires collaboration by electric utility, but Athens does have authority to use their municipal water utility as an on-bill financing pathway.

**PROS** — Provides access to financing for clean energy improvements through utility bills rather than through traditional sources of credit.

**CONS** — This would have to be implemented bythe electric utility, unless creative alternatives exist (such as collecting through water utility bills). Eligibility criteria creates limitations and can limit the number of potential program participants.

## Promote 'Green' Loans

**EQUITY SCORE:** 2 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Promote effective bank loan approaches and practices to support renewable energy and energy efficiency projects

**ATHENS CONTEXT** — ACCGov could offer this through a Community Energy Fund.

**PROS** — ACCGov can use their influence to spread awareness about existing lender programs to fund green initiatives.

**CONS** — May require work on ACCGov's part to do vetting of all products that are being promoted to ensure they aren't suggesting any predatory lending products.

## Virtual Power Purchase Agreement

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — A renewable energy contract to provide a financial hedge against energy price fluctuations

**ATHENS CONTEXT** — This is not feasible at this time.

**PROS** — Innovative procurement and financing mechanism for grid-scale solar. Allows flexibility to negotiate pricing, saves money, and helps to determine siting of the solar installation.

**CONS** — Not legally available in Georgia.

## Georgia Power Commercial Efficiency Custom Rebate Programs

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Reduces the cost of energy efficient technologies and upgrades

**ATHENS CONTEXT** — Existing GPC programs have not been successfully marketed in Athens, however opportunities exist for ACCGov to provide support in promoting use of existing programs.

**PROS** — Helps connect more ACC residents and businesses to existing programs which helps make the case for more robust utility programs in future years.

**CONS** — Potential program participants have historically struggled with eligibility criteria set by the utility for program participation.

## Utility Commercial Incentives

**EQUITY SCORE:** 0 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Tools and resources provided by the utility to business owners that help commercial customers save money and reduce energy usage provided by the utilities

**ATHENS CONTEXT** — Georgia Power offers a suite of rebates and incentives for business customers. Jackson EMC provides Commercial/Industrial energy services.

**PROS** — ACCGov can use their influence to spread awareness about existing utility programs for energy efficiency.

**CONS** — Potential program participants have historically struggled with eligibility criteria set by the utility for program participation.

## Utility Residential Incentives

**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Tools and resources provided by the utility to residential homeowners that help save money and reduce energy usage provided by utilities

**ATHENS CONTEXT** — Georgia Power, Jackson EMC, Walton EMC, and Rayle EMC offer varied suites of Residential Incentives and Rebates.

**PROS** — ACCGov can use their influence to spread awareness about existing utility programs for energy efficiency.

**CONS** — Potential program participants have historically struggled with eligibility criteria set by the utility for program participation.

## Explore opportunities for ground source heat pumps

**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Identify pathways to promote use of ground source heat pumps in new buildings and/or at time of equipment replacement in existing buildings to promote building electrification

**ATHENS CONTEXT** — Georgia Power at times offers incentives for heat pump installation, however there is no ACCGov policy in place at this time.

**PROS** — Heat pumps provide highly efficient HVAC and/or water heating systems, reducing overall energy consumption in buildings.

**CONS** — High upfront costs and may require expansion of existing electrical panel as well as ductwork in building.

## Policy to address high loss water meters

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Policy designed to minimize water loss in lines entering buildings

**ATHENS CONTEXT** — Athens loses a large amount of water due to issues in horizontal infrastructure outside of the building. Updated building codes and new piping infrastructure can be considered.

**PROS** — Reduces water waste.

**CONS** — High upfront capital costs and will require the employment of skilled workers.

## Net Zero Energy Code

**EQUITY SCORE:** -1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Phase-in energy codes that require new buildings to provide as much energy to the grid as they consume.

**ATHENS CONTEXT** — There is no code in place for this currently, however ACCGov should collaborate with building owers in order to transition toward this as equitably as possible.

**PROS** — Increases energy efficiency in buildings and lowers utility costs.

**CONS** — This is a more complex code to adhere to and enforce.

## Develop Local Micro-Grids for Critical Infrastructure

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Partner with utility to develop microgrid projects; provide local leaders with an understanding of what microgrids are and how they can serve communities

**ATHENS CONTEXT** — None currently in place in Athens. Existing microgrid projects in GA that could serve as an example for Athens include a partnership between GA Tech and GA Power.

**PROS** — Provides power to participants when the main power source fails, adding resiliency to critical infrastructure (hospitals, public safety facilities).

**CONS** — Expensive installation and upkeep.

## Net Zero Energy demonstraction project to demonstrate Net Zero Energy Codes

**EQUITY SCORE:** 0

**ACTION AREA DESCRIPTION** — Project for ACCGov facility, such as Athens Library, to demonstrate net zero construction

**ATHENS CONTEXT** — There is no code in place for this currently, however ACCGov should collaborate with building owers in order to transition toward this as equitably as possible.

**PROS** — Opportunity to teach the community about net-zero projects that are available for their buildings.

**CONS** — Requires educated staff and compensation.

## Municipal Energy Task Force

**EQUITY SCORE:** 0 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Establish a clean energy task force to identify ongoing municipal clean energy opportunities

**ATHENS CONTEXT** — Athens previously had one, and can re-institute.

# TIER THREE | Community and Evironment Pathway

## Community Pathway

### Community Solar
**EQUITY SCORE:** 1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — A solar power plant that shares electricity across more than one property

**ATHENS CONTEXT** — Not available for Athens at this time.

**PROS** — Provides solar power to residents who are not able to install rooftop solar onto their homes.

**CONS** — Provides solar power to residents who are not able to install rooftop solar onto their homes.

### Community Choice Aggregation
**EQUITY SCORE:** 0 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — The municipality purchases electricity from a power generation source on behalf of residents and businesses within their community

**ATHENS CONTEXT** — Not available for Athens at this time.

**PROS** — Allows the community to choose what power sources they'd like to receive their energy from.

**CONS** — This is not available to Athens.

## Environment Pathway

### Water Efficiency Bulk Purchasing
**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Reduce cost by bulk-purchasing water-saving equipment

**ATHENS CONTEXT** — Not available for Athens at this time, however partnerships with the Athens Watershed Management offices is a crucial next step to move this policy forward.

**PROS** — Takes advantage of economies of scale to save money on per-unit cost of water efficient equipment.

**CONS** — Administering bulk purchase program takes time and money. Administrative overhead is required.

### Non-Local, NATIONAL, Renewable Energy Credit Procurement
**EQUITY SCORE:** 1 | **ACTION AREA:** FINANCING

**ACTION AREA DESCRIPTION** — Organized bulk purchases of credits for renewable energy generation

**ATHENS CONTEXT** — Not currently in place, however local RECs are being prioritized when the decision to purchase RECs comes.

**PROS** — Reduces the use of fossil fuels by purchasing renewable offsets.

**CONS** — Benefits are not local to the region so air quality and emissions are still a problem.

### Net Zero Water Code
**EQUITY SCORE:** -1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Phase-in code requirements that new buildings match total water consumed with water obtained from rain, reuse, or returned to the original source

**ATHENS CONTEXT** — ACCGov has authority to regulate building codes, however collaboration with building owners is required to move forward equitably.

**PROS** — Conserves water, reduces sewer needs, and takes pressure off of centralized water treatment infrastructure.

**CONS** — Legal and regulatory arena makes this complex to implement (local and state oversight involved). There are also high barriers to entry.

# TIER THREE | Transportation Pathway

## Upzoning near transit stations

**EQUITY SCORE:** 2 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Boost ridership per transit vehicle around affected transit stations through density

**ATHENS CONTEXT** — ACC Planning Commission make recommendations to M&C, Planning Dept oversees enforcement. Multi-modal Center is ACC's only major transit station.

**PROS** — Decreases number of cars on the road in certain areas, reducing emissions and improving area health.

**CONS** — Requires money and planning from the local transit department. There is a risk of dissatisfaction from surrounding residents if public transport is unable to accomodate an increase in riders.

## Market transformation programs to accelerate transition to EVs

**EQUITY SCORE:** -1 | **ACTION AREA:** PROGRAMMATIC

**ACTION AREA DESCRIPTION** — Financial incentive program to increase EVs adoption

**ATHENS CONTEXT** — No program in place at this time.

**PROS** — Increases the number of EV's on the road and improves public health.

**CONS** — It is difficult to ensure that funds are used toward the purchase of a new electric vehicle.

## Low emissions zones (LEZ)

**EQUITY SCORE:** 1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Create areas where high emitting vehicles are restricted at all times or during certain hours of the day

**ATHENS CONTEXT** — No program in place at this time.

**PROS** — Reduction in the concentration of pollutants in areas frequented by commercial transport, providing better health conditions and reducing sound pollution.

**CONS** — Requires political will; many commercial fleets will oppose any regulations.

## Congestion pricing/Go Zones

**EQUITY SCORE:** -1 | **ACTION AREA:** REGULATORY

**ACTION AREA DESCRIPTION** — Surcharge motor vehicle drivers during peak congestion times to encourage alternative mobility choices

**ATHENS CONTEXT** — No system in place at this time.

**PROS** — Can decrease congestion, improve public health, and decrease traffic. More public transportation is encouraged.

**CONS** — There are equity concerns around deciding where zones should be placed. Requires funding, technology investments, and staff to track liscense plates in the area.

## Electric Vehicle (EV) Battery Reuse

**EQUITY SCORE:** 0 | **ACTION AREA:** TECHNOLOGY

**ACTION AREA DESCRIPTION** — Recycling EV batteries in order to provide electricity services and resilience value to the grid

**ATHENS CONTEXT** — SK Innovation is a battery plant that is expected to be complete by the end of 2023. EV battery reuse is currently not one of their offerings but could change in the future.

**PROS** — EV batteries provide 70% of their storage to provide reliable energy for the grid in times of power outages.

**CONS** — This is still a very new concept.

# appendix four | List of Acronyms

ACC — Athens-Clarke County
ACCA - Athens Community Career Academy
ACES — Advanced Clean Energy Scenarios Model
ACCGov — Unified Government of Athens-Clarke County
ArcGIS — Geographical Information System (GIS) software family
BAU — Business-As-Usual
CAB — Community Advisory Board
CHP — Combined Heat and Power
COP26 — United Nations Climate Change Conference
COVID-19 — Coronavirus Disease 2019
COPD — Chronic Obstructive pulmonary disease
CO2 — Carbon Dioxide
CTAE — Career, Technical, and Agricultural Education
CRP — Clean and Renewable Energy Action Plan
EMC — Electric Membership Cooperative
EE — Energy Efficiency
EV — Electric Vehicle
GICH - Georgia Initiative for Community Housing
GHG — Greenhouse Gas
HOPE - Helping Outstanding Pupils Educationally (HOPE) Scholarship
HVAC — Heating, Ventilation, and Air Conditioning
IPCC — Intergovernmental Panel on Climate Change
IRP — Integrated Resource Plan
kW — Kilowatt
kWh — Kilowatt-Hours
LED — Light-Emitting Diode
LEED — Leadership in Energy and Environmental Design
MAX — Maximum Clean Energy Potential Scenarios
MCE — Most Cost-Effective Scenario
MMT — Metric Tons
MW — Megawatt
MMT — Metric Tons
MW - Megawatt
MWh — Megawatt-Hours
NH3 — Ammonia
NOx — Nitrogen Oxides
PACE — Property Assessed Clean Energy
PM2.5 — Fine Particles
PM10 — Particulate Matter
PSC — Georgia Public Service Commission
RE — Renewable Energy
REC — Renewable Energy Credit
RFP — Request for Proposal
RFQ — Request for Quote
SO2 — Sulfur Dioxide
SEPA — Solar Energy Procurement Agreement
SPLOST — Special-Purpose Local-Option Sales Tax
TSPLOST — Transportation Special Purpose Local Option Sales Tax
VOCs — Volatile Organic Compounds

# appendix five | Policy Pathway Assessment Tool

**This tool is designed to provide a process and set out questions to assist, guide, and address the impacts of decision-making that includes an equity lens. By utilizing an equity lens as part of this process, it helps identify and eliminate disparities, moving Athens toward a community where identity is no longer a predictor of outcomes.**

The ACCGov Mayor and Commission has defined equity as:

> *Equity means justice, fairness, and including the different lived experiences, backgrounds, and needs of individuals and groups in policies and practices in order to close the gaps and improve outcomes.*

In developing and implementing the Clean and Renewable Energy Action Plan in the coming years, ACCGov includes a focus on Equity that:

- Evaluates and implements policies and procedures to ensure fair treatment and access to resources, moving toward a community where circumstance is not a predictor of outcomes.
- Evaluates and assesses the impact of policies on residents to ensure that actions are based on specific, identified needs rather than assumptions.
- Commits to taking consistent action to identify and eliminate disparities in order to increase positive outcomes throughout the community.

| Project | Proposal | Data | Community Engagement | Impact | Analysis & Strategies | Implementation | Accountability & Evaluation |
|---|---|---|---|---|---|---|---|
| Dept:<br><br>Division:<br><br>Project Title: | Policy, program, or project description. Desired results and outcomes ? | How has data been broken out: geographic areas, demographics, neighborhoods, populations, existing programs, /policies, etc.?<br><br>Are there data gaps? | How have community members and stakeholders been engaged?<br><br>Whose voice did we listen to?<br><br>Whose voice did we leave out?<br><br>Do barriers and/or opportunities to engagement exist and have they been explored? | What populations are impacted by the decisions we are about to make?<br><br>Who is burdened by this proposal? Who will benefit?<br><br>What does this proposal have the ability to impact (community and equity indicators, ex: housing, food access, youth development, education, economic development)? Organizational impact? | What are the strategies for advancing opportunity and/or minimizing negative or unintended outcomes?<br><br>What have you learned from data and stakeholder involvement?<br><br>What impacts are aligned with desired community and organizational outcomes? What is unresolved? | What is the plan for implementation?<br><br>Is it realistic and adequately funded, staffed, resourced?<br><br>What resources and/or actions are still needed? | How will we ensure accountability, communicate, and evaluate results?<br><br>How will impacts in the community be documented and evaluated?<br><br>How will you continue to communicate, partner, and sustain relationships in the community around this project's impact? |

# Glossary of Terms:

**Inclusion-** Inclusion means the choices, methods, and strategies that create room for more voices, and cultivate an environment where every individual and group is acknowledged, welcomed, respected, and valued in a matter that support their full participation.

**Diversity-** Diversity includes human differences across a range of experiences, identities, and backgrounds. Valuing diversity requires actively seeking out and acknowledging individual and group differences while prioritizing the benefits of representation.

**Equity-** Equity means justice, fairness, and including the different experiences, backgrounds, and needs of individuals and groups in policies and practices in order to improve outcomes. Equity requires the evaluation of policies and processes to ensure that disparities are identified and

eliminated, moving ACCGov towards a community where identity is no longer a predictor of outcomes.

**Equity Tool-** Equity tools are designed to intentionally integrate equity into decision-making, which includes policies, programs, and projects which too often are developed without thoughtful consideration of equity. An equity tool can be used as both a process and a product, and can help to implement strategies and actions that reduce (and do not further perpetuate) inequities, while improving success for all groups.

**Disparity-** A measurable difference in outcomes for populations.

**Community Indicator-** The means by which we can measure socioeconomic conditions in the community.

**Equity Indicators-** Equity Indicators work across multiple areas (e.g., education, housing, food access, economic development, health, etc.) and measure the disparities faced by disadvantaged groups (those most vulnerable to inequity, such as racial and ethnic minorities, immigrants, or individuals living in poverty) across those domains on a regular basis, tracking change over time.

**Impact-** Connecting the people to the policy through process, it's the condition we aim achieve in the community.

**Outcome-** A final product or end result.

**Distinction between Equity and Equality**- Equality uses the same strategies for everyone, but does not account for situational differences, and therefore does not produce equal outcomes. outcomes. Equity uses differentiated and targeted strategies to address different needs, so that identity is no longer a predictor of outcomes.

POLICY AND/OR PROCEDURE STATEMENT

SUSTAINABILITY OFFICE
UNIFIED GOVERNMENT OF ATHENS-CLARKE COUNTY, GEORGIA

I. POLICY SUBJECT: Standards and procedures to be followed in the partial reallocation of future utility franchise fee revenue from the General Fund to a unique Project within the Special Programs Fund for the purpose of community energy projects.

FUNCTIONAL AREA: Manager's Office/Sustainability Office & Finance Department

POLICY/PROCEDURE NUMBER: SUST-001

II. POLICY STATEMENT:

As defined by this Policy, upper revenue targets are established for fees collected by the administration of utility franchise fees to energy providers--including, but not limited to Georgia Power Company, Jackson Electric Membership Corporation, Walton Electric Membership Corporation, Rayle Electric Membership Corporation, and Atlanta Gas Light Company—so as to constrain the amount directed into the Athens-Clarke County Unified Government (ACCGov) General Fund with the remainder redirected to unique Project within the Special Programs Fund known as the Community Energy Fund project (CEF). This undesignated revenue target will increase in future fiscal years at an annual rate not to exceed 1%, and will be suspended during times of national economic recession. In support of a transition to 100% clean and renewable energy, the CEF will be used to improve building performance and reduce energy cost burdens in Athens-Clarke County for the benefit of low and moderate income residents, businesses, and non-profit organizations. The distribution of CEF funds back into the community shall be directed by a CEF utilization policy approved by the Mayor and Commission. The utilization policy will be informed by the Clean Energy Action Plan.

III. POLICY TERMS:

A. Policy Goals:

The goals of this Policy are to create a fund that will:

1. Make meaningful progress towards achieving ACCGov's 2050 community-wide 100% Clean and Renewable Energy Goal;

2. Create a feedback mechanism where increases in utility energy costs and/or energy consumption result in a funding source that is available to use energy efficiency improvements and renewable energy installations to reduce energy burdens for the residents and businesses most impacted by these increases;
3. Support energy-related economic development incentives used to recruit and expand businesses in the community;
4. Create a funding source that is available to support the non-profit community in a transition to renewable energy through energy conservation and renewable energy projects, and by funding programs that address local poverty by supporting jobs in the clean energy economy;
5. Amplify existing conservation programs provided by energy utilities and identify other community programs that can leverage funds for existing work with residents most vulnerable to increasing energy costs; and,
6. Achieve these goals by creating a sustainable financial mechanism which responsibly maximizes the funds already available to this Unified Government.

B. Definitions:

1. Fiscal Year: The 12 month budgetary year used by ACCGov, ending on June 30 of each year.
2. General Fund: The primary fund used by ACCGov to record budget revenues and expenses not associated with special purpose funds.
3. Special Programs Fund: An account established by ACCGov to provide an extra level of transparency and accountability to residents by collecting funding for designated purposes. When annual revenues exceed expenses, a special programs fund carries funding forward across fiscal years.
4. Franchise Fee: An annual fee paid by privately held utilities to offset the impacts their services have on the community. The fee is typically based on the amount of utility services sold and is established in franchise agreement between each utility and ACCGov.
5. Energy Burden: The proportion of household income spent on energy services.

C. Community Energy Fund Procedures:

The following budget allocation procedures will be followed to ensure ACCGov utility franchise fee revenue is expended in a manner that meets the aforementioned goals of this policy while ensuring transparency and accountability.

1. The ACCGov Manager (Manager) shall create a unique Project within the Special Programs Fund, which shall be funded as directed in this policy.
2. With each budget adoption, the Mayor and Commission will set the limit for undesignated franchise fee revenues and estimates for contributions into the Special Programs Fund, to the Community Energy Fund project. If energy-related franchise fees come in below the budget forecasts, a lesser amount will be allocated to the Community Energy Fund. If energy-related franchise fees come in above budget forecasts, a budget amendment will be used to allocate the additional revenue into the Community Energy Fund.
3. In the first two fiscal years of this policy, the annual upper limit on utility franchise fee General Fund receives for undesignated purposes will be held steady with the FY21 projections identified in the budgeting process.
4. Each fiscal year thereafter, the amount of utility franchise fee funds utilized in the General Fund for undesignated purposes should increase by 1% annually. The next ten years of proposed upper limits for the undesignated use of electric and natural gas franchise fees are as follows:

| Fiscal Year | Undesignated Electric & Gas Franchise Fee Revenues |
|---|---|
| 2021 | $7,175,000 |
| 2022 | $7,175,000 |
| 2023 | $7,247,000 |
| 2024 | $7,319,000 |
| 2025 | $7,392,000 |
| 2026 | $7,466,000 |
| 2027 | $7,541,000 |
| 2028 | $7,616,000 |
| 2029 | $7,693,000 |
| 2030 | $7,770,000 |

5. Aside from the recessional policy suspension outlined in Section D, any increase or decrease in the upper limit on franchise fee revenue going into the General Fund shall require Mayor and Commission approval.
6. As CEF revenues accumulate, the use of these funds shall be guided by the future utilization policy to be adopted by the Mayor and Commission and developed in alignment with the Clean Energy Action Plan.
7. Once a utilization policy is adopted, the Sustainability Office will be responsible for the administration of the CEF, with oversight provided by the Finance Department and Attorney's Office.
8. This policy shall take effect in the 2021 fiscal year budget beginning July 1, 2020.
9. At the end of each fiscal year, the Finance Department will implement a revenue reclassification to reallocate energy utility franchise fees in excess of the upper limited established in the budget process (targets listed in Section C), from the General Fund to the Special Programs Fund revenue specifically for this project.

D. Suspension of Policy in the Event of National Economic Recession:

1. In any ACCGov fiscal year with two or more fiscal quarters of ≤ 0% growth in national gross domestic product (GDP), the procedures outlined in Section C of this Policy shall be suspended for the current and following ACCGov fiscal year.
2. In any time where two consecutive fiscal quarters of ≤ 0% growth in national GDP bridges an ACCGov fiscal year (Q4-Q1), the procedures outlined in Section C of this Policy shall automatically be suspended only for the fiscal year in which the Q1 national GDP is ≤ 0%.
3. When Section D provisions are triggered, there will be no upper limits on undesignated franchise fee revenues for use by the General Fund and no revenues will be directed to the CEF unless directed by the Mayor and Commission.
4. For the purposes of this Policy, annual economic growth will be determined by utilizing the most recent quarterly estimates of GDP available from the U.S. Bureau of Economic Analysis.

# appendix seven | 100% Clean and Renewable Energy Resolution

**100% CLEAN AND RENEWABLE ENERGY RESOLUTION BE IT RESOLVED BY THE MAYOR AND COMMISSION OF ATHENS-CLARKE COUNTY:**

WHEREAS, there is a strong scientific consensus regarding the reality of climate change and the connection between anthropogenic factors that create greenhouse gases, and how it is affecting our community now, and how current projections show what future generations will experience; and

WHEREAS, the combustion of fossil fuels, through direct emissions and through secondary climate change impacts, poses a threat to human and environmental health globally through increased air and water pollution, sea level rise, climate-driven extreme weather events, and accelerated loss of species and habitats; and

WHEREAS, Athens-Clarke-County is highly vulnerable to the effects of climate change on residents, public infrastructure and the local economy, and the development of locally-generated renewable sources of energy will increase the resilience of Athens-Clarke-County and reduce the impacts of power loss during natural disasters; and

WHEREAS, Athens has maintained a high poverty rate over the years, and black and brown communities and other economically disadvantaged people will experience the economic, environmental, health, and social harms of climate change disproportionately, and spend more of their income on energy than median households in our community; and

WHEREAS, "Clean and renewable" energy pertains to energy sources that are less detrimental to the environment than fossil fuels, and the switch to clean energy sources will reduce air, water and land pollution and the associated impacts on public health and public spending; and

WHEREAS, energy use is a holistic system, with conservation and transportation electrification being highly prioritized in order to guarantee that resources are optimized to their fullest potential during Athens' transition to 100% renewable energy; and

WHEREAS, at both a national and local level, household income, home ownership status, race, and age are historically correlated with the likelihood that a household will spend more of its total income on energy expenses; therefore, it is imperative that we prioritize low-income, black, brown, and senior communities with policies and programs to decrease their energy burden through the adoption of sustainable and renewable technologies; and

WHEREAS, the Unified Government of Athens-Clarke-County is a leader in environmental sustainability and has used energy conservation, solar energy systems, solar thermal systems, and a landfill gas recovery system to save more than $450,000/year in energy expenses while generating nearly 15% of its energy needs from renewable sources; and

WHEREAS, the work from local utilities has increased energy efficiency and the amount of grid energy provided by renewable sources, which has led to Georgia being one of the leading states for the deployment of solar power; we further recognize the major role utility providers will play in transitioning our community to clean and renewable energy; and

WHEREAS, the development of the renewable energy sector has already created 76,500 high-paying jobs in Georgia, with significant growth expected as less spending is used on out-of-state energy sources; and

WHEREAS, non-traditional tools such as renewable energy certificates, community solar installations, solar energy procurement agreements, property-assessed clean energy loans, and virtual net metering are essential for Athens to rapidly transition to 100% renewable status by 2035; and

WHEREAS, on April 26, 2016, a previous body of this Commission committed to increasing the use of renewable energy in both the public and private sectors, and since that time, Athens has been recognized as a SolSmart Community for its work in advancing the use of solar energy; and

WHEREAS, youth and future generations will be impacted more significantly by climate disruption than those currently in positions of power. We must recognize that youth will inherit the effects of the bad decisions of the past, have the most to lose from a lack of action in the present, and will spend their lives leading the transition to a truly green and sustainable economy.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Commission of Athens-Clarke County, Georgia:

Section 1: The Unified Government of Athens-Clarke County will obtain 100% of its energy needs from clean and renewable energy sources produced on-or-for Unified Government properties by 2035, and it will decrease the use of third-party renewable energy certificates to not more than 40% of its total energy portfolio by 2050; and

Section 2: The community of Athens-Clarke County will obtain 100% of its electricity needs from clean and renewable sources by 2035, and all other energy needs will be met by 100% clean and renewable energy sources by 2050; the Unified Government of Athens-Clarke County will implement policies and programs and lead a comprehensive effort to support this transition; and

Section 3: These efforts will work in a manner to redress historical inequities in our community by prioritizing resources to train and hire people from within marginalized communities to participate in the energy efficiency and renewable energy workforce, and by facilitating energy efficiency upgrades, opportunities for clean transportation, and renewable energy installations in low-income communities; and

Section 4: The Unified Government of Athens-Clarke County commits itself to developing a clean energy action plan within 18 months of the adoption of this resolution, by inviting partnerships with utilities, institutional partners, industries, businesses, and individuals, as well as collaborating with surrounding communities in achieving aligned clean energy and equity goals; this body also commits to revisiting these goals and associated planning efforts as technologies, policies, and economic feasibility of these commitments change; and

Section 5: The Unified Government of Athens-Clarke County urges the Athens-Clarke County Pension Board and the Athens-Clarke County Deferred Compensation Board to re-evaluate its position about the role fossil fuels play in Athens-Clarke County employees' retirement funds and how they impact the health of ACC retirees' investments, and continue reviewing fossil fuel divestment strategies. Athens-Clarke County encourages increasing investments in renewable and sustainable energy sources.

Section 6: The Mayor and Commission hereby direct the Manager and ACCGOV staff to support this resolution.

SO RESOLVED this 21 day of May 2019.

Mayor Kelly Girtz

Commissioner Patrick Davenport, District 1

Commissioner Jerry NeSmith, District 6

Commissioner Mariah Parker, District 2

Commissioner Russell Edwards, District 7

Commissioner Melissa Link, District 3

Commissioner Andy Herod, District 8

Commissioner Allison Wright, District 4

Commissioner Ovita Thornton, District 9

Commissioner Tim Denson, District 5

Commissioner Mike Hamby, District 10

# appendix eight | Equity Charrette Summary

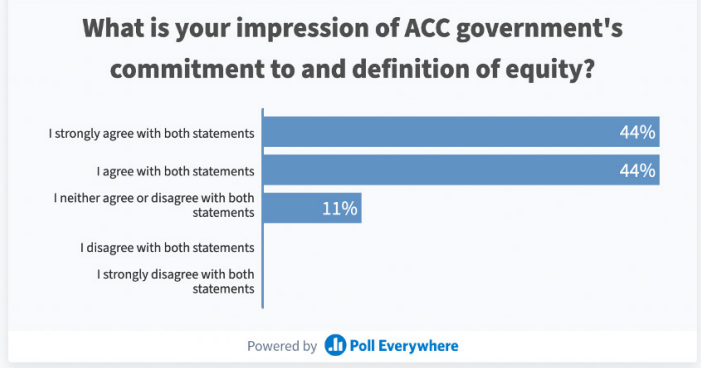
On February 16, 2022, Athens-Clarke County Government hosted a virtual equity charrette with members of the Community Advisory Board (CAB) and guest participants from CAB members' organizations. The equity charrette lasted for two hours. The goal of the equity charrette was for participants to give their thoughtful feedback and input on how to acknowledge, explicitly address, and improve equity outcomes as the community works to achieve its goals through implementation of its equitable clean and renewable energy plan.

To address this goal, participants actively engaged in two group activities: a survey and small group discussions. The equity charrette began with sharing an overview of the equity goals that Athens Clarke County Government (ACCGov) is prioritizing in the Athens Clean Energy Plan (CRP). This included stating the shared equity definition and commitment to equity across all ACCGov departments, and communicating a commitment to making the development of the CRP and the initiatives that come out of it an equitable process. ACCGov noted that two of its neighborhoods have the highest energy burden in the state of Georgia, and communicated a commitment to significantly decreasing energy burden in these areas.

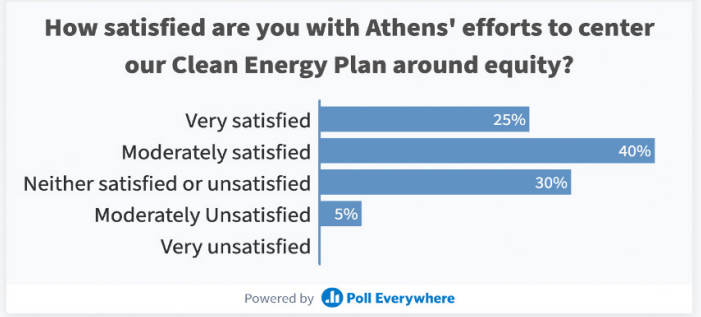
Current equity efforts that ACCGov has already enacted, such as using the Greenlink Equity Map to better understand the current landscape of inequities across Athens, were discussed. Research and mapping tools were utilized to identify which neighborhoods across Athens are significantly energy burdened, bring attention to the disproportionate impacts experienced by vulnerable communities in Athens, and ultimately, address the relationship between energy and health implications in Athens. Additionally, ACCGov made strides toward meeting equity goals by hosting a charrette centered around equity which engaged the community in decision-making and input regarding meaningfully integrating equity into the Plan. Lastly, ACCGov developed an equity scoring process that evaluated and ranked the impact on energy burden for each clean energy policy and initiative that Athens Clarke County (ACC) is considering.

After updating the participants on the CRP progress, participants were asked to participate in activity one by providing initial feedback and thoughts on the current equity initiatives in the Plan to date. Using the digital survey platform, Poll Everywhere, the participants answered six survey questions. The questions and responses are listed to the right:

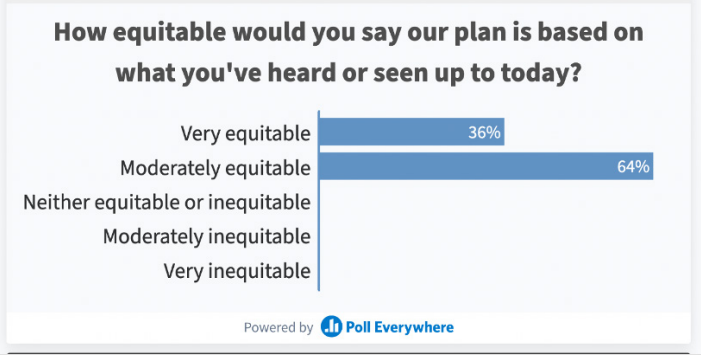
1. What is your impression of ACC government's commitment to and definition of equity?



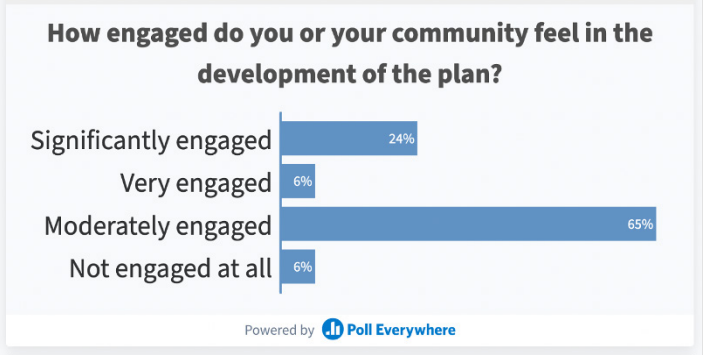

2. How satisfied are you with Athens' efforts to center our clean energy plan around equity?



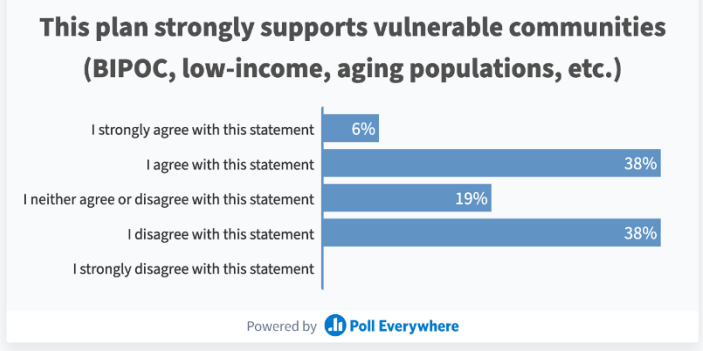

3. How equitable would you say our plan is based on what you've heard or seen up to today?



4. How engaged do you or your community feel in the development of the Plan?




5. This plan strongly supports vulnerable communities (traditionally marginalized communities, low-income, aging populations, etc.)




6. What programs or initiatives should ACC prioritize in the implementation of this plan? The following responses included:

a. “Emergency preparedness planning”
b. “Target areas for pilot programs, community outreach, and connection to resources with equity at center”
c. “Interested in energy efficiency-based health-related pilots.”
d. “Helping cities use GEM data to identify the priority communities that the Biden Administration wants to receive 40% of federal funds”
e. “I haven’t figured that out yet.”
f. “Not sure”
g. “I’ll be sharing this info to non-profit partners I collaborate with who are seeking funding, as I’m not currently attached to a project or org.”
h. “Demonstrate need for residential energy efficiency upgrades”
i. “To better understand what metrics federal funders are looking for”

The second activity focused on 1.) learning what participants think the equity engagement needs to look like, and 2.) identifying groups that need to engage in this process and how they would like to be involved. Participants broke out into small groups to answer the following questions under the facilitation of the session leaders. The following questions and responses are below:

1. Thinking high-level, what does the implementation section of this plan need to include to show that Athens is committed to an equitable future?

In response to this question, participants identified that the implementation of this plan should include a process for educating community members about clean energy by building trust and relationships with communities. In return, community members will be able to communicate their needs and concerns while also feeling invested and engaged. It was also suggested that ACCGov hire an outreach lead who can translate and communicate technical information to communities. Participants proposed soliciting additional input regarding the Plan from churches, faith groups, and community leaders. Participants also suggested outlining a strategy to continue supporting the Mayor and Commissioner in achieving long term goals. Lastly, it was recommended that one to three initiatives that have the greatest equity impact be prioritized and presented to communities in focus group discussions for input.

2. What are good partnerships to have during the implementation process? What is the best way to engage with these partners? How best to engage disadvantaged communities during development of programs and initiatives after the plan?

Participants identified the following partners for consideration: energy providers, public health professionals, neighborhood leaders, faith-based leaders, CAB members, county commissioners, Athens Land Trust, non-profit organizations, Council on Aging, leisure services, sports organizations, Black Chamber, the housing sector, the Public Service Commission, school systems, police departments, rural communities, and human resource departments.

To best engage these groups, participants recommended that ACCGov approach partners by building relationships with them and helping to meet their needs first. ACCGov should also work to build clean energy education into the school curriculum, and develop an advisory board for trainings related to advocacy and meeting facilitation. Participants also expressed wanting to see ACCGov involved in the Integrated Resource Plan (IRP) process to facilitate advocacy to larger energy providers.

3. What kind of resources are needed to facilitate the participation of all engaged in these partnerships?

Participants expressed that internally ACCGov will have to invest in well-trained community engagement staff member who has experience with public engagement if partnerships are to be successful. This person should also be well knowledgeable of Athens and committed to the City as well. ACCGov should also provide tools for community engagement, communications, and models for distributing partnerships. To ensure the community engagement activities are accessible, events should be located in physical places that are near transit stations, office childcare, stipends, food and water, disability resources, and Spanish speakers. Participants also voiced how critical it is to seek additional funds from the Department of Energy, especially for a weatherization program.

4. How do we hold ourselves accountable to make this an equitable implementation process? What metrics should ACC use to be accountable? How frequently do you want to see accountability metrics reported?

To ensure accountability, participants explained that ACCGov should track equity, community involvement, and technical energy metrics. It was also suggested that ACCGov develop an implementation committee where community-based groups can hold ACCGov accountable. Building meaningful partnerships and evaluating the impact of those partnerships was also expressed. ACCGov should seek to understand how many people are reading CRP materials, how many people are attending the meetings, and how many weatherization packs were received. Various frequencies were mentioned for how often these metrics should be reported and this ranged from monthly to every three years.

After the breakout sessions, the full group came back together to report out on what was said during the small groups. Before the conclusion of the equity charrette, participants also had the opportunity to reflect on their overall thoughts of the charrette. Overall, participants were very pleased and interested in further engaging with ACCGov as we continue the development of the Plan. The equity charrette ended with closing remarks from Mike Wharton, Athens Clarke County Sustainability Officer.