2021

100% SAVANNAH CLEAN ENERGY PLAN

100% Savannah

PEOPLE • PLANET • PROSPERITY

SAVANNAH

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Letter from Mayor & Council

[Forthcoming]

Letter from Working Groups

To the Savannah Community:

As we transition out of this pandemic season, we must not forget the lessons learned--the importance of preparing for challenges, reducing inequities, and working together in the face of a crisis.

With so many challenges in the world today, it can be easy to forget about climate change. But, as with everything else during the past two years, the climate impacts were "unprecedented." The 2020 Atlantic Hurricane Season broke records for total named storms, rapid intensifications, and U.S. landfalls. Five of the six biggest wildfires in California history burned in 2020. In 2021, streets buckled as temperatures soared to triple digits in the Pacific Northwest.

When our goals stretch out to 2050 and beyond, it is easy to think of climate change as a future problem, or a problem on a different continent, but we cannot forget that climate change is an imminent threat. It is not a threat in the future or in another country but in the here and now. It is a challenge that demands immediate collective action.

That said, it would be a mistake to see the climate crisis as nothing more than a crisis. As we contributed to this plan, we were continually amazed by the opportunities--opportunities to create family-sustaining, local jobs, to improve the health and comfort of our homes, and to remake society to work better for everyone. Climate action is not about what we have to give up, but what we have to gain.

This plan is our roadmap, and we all know that road trips are better with friends. Queue up the playlist, pack some snacks, and get in the (electric) car. Let's get started together.

The People, Planet, Prosperity and Energy Working Groups

Executive Summary

"I play fictitious characters often solving fictitious problems. I believe humankind has looked at Climate Change in that same way: as if it were a fiction, happening to someone else's planet, as if pretending that Climate Change wasn't real would somehow make it go away." - Leonardo DiCaprio

According to the National Oceanic and Atmospheric Administration, July of 2021 was the hottest month in recorded history. Just a year earlier, 2020 broke the record for the most named storms, with 30. The climate is changing rapidly, and all evidence suggests that it will continue to do so if we don't change the ways we generate and use energy.

Recognizing these risks, the City Council unanimously passed a resolution to achieve 100% renewable electricity community wide by 2035 and 100% renewable energy community wide by 2050. This makes Savannah the fifth city in Georgia to commit to such a goal.

The following document is a roadmap for achieving these two 100% goals through a just and equitable transition to clean energy. It is the product of a robust stakeholder process that included four community-based working groups, a Council-appointed advisory group of community leaders, and targeted "focus area" outreach to groups like frontline communities, small businesses, and youth.

The 45 strategies include a series of enabling actions, like establishing a dedicated financing model for sustainability initiatives and a method for sharing progress with the public.

Outside of these enabling actions, the strategies in this document fall into 5 key categories:


Energy Efficiency


Renewable Energy


Transportation and Mobility


Community & Economic Development


Education & Engagement

These strategies span the near-, mid-, and long-term and involve a wide variety of stakeholders.

Achieving 100% Savannah will be challenging, but it will also be a tremendous opportunity to reimagine society to be healthier and more prosperous for everybody. This vision is woven throughout this plan with strategies for creating good-paying jobs, starting new businesses, and freeing up disposable income.

Importantly, this report is only a first draft. As technologies, policies, and cultures change, our plans will change as well. The transition starts today, but it is not limited by what we know today. We invite you to join us.

Background

Introduction

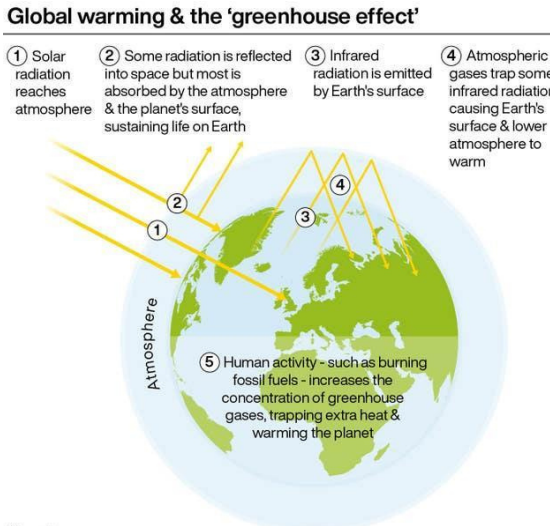
"It is unequivocal that human influence has warmed the atmosphere, ocean and land" - Intergovernmental Panel on Climate Change (2021)

Since the Industrial Revolution, the global mean surface temperature has increased by approximately 1 degree Celsius, or 1.8 degrees Fahrenheit. Though 1 degree may seem quite small, this warming has caused profound changes to the earth's climate, with devastating impacts on the people and animals that inhabit it.

This warming can be attributed to a phenomenon known as the greenhouse effect. As shown in the diagram to the right, the atmopshere has always contained gases, like carbon dioxide, that trap heat and make the planet livable. However, human activities like the combustion of fossil fuels have increased the concentration of these gases, increasing the amount of heat that is trapped to a destablizing level.

The country is already seeing the impact of this change. In June of 2021, triple digit temperatures in Seattle and British Columbia caused so much heat stress that streets buckled. At the same time, wildfires raged, burning more than 6.9 million acres between June and November at an estimated cost of $70-90 billion.

The effects go beyond temperature. As the atmosphere warms, the oceans warm as well, providing perfect conditions for the rapid intensification of hurricanes, like Hurricane Ida, which intensifed from a Category 1 Hurricane to a Category 4 Hurricane between its first and third landfalls.



Even routine weather events are becoming more deadly. As the air warms, the amount of mositure it can hold increases as well, leading to more intense rainfall. This too was seen with Hurricane Ida when the remnants of the storm dumped so much rain on New York and New Jersey that more than 50 people died in the resulting floods. Similar tragedies have claimed lives this year in North Carolina, Tennessee, and Alabama, to name only a few.

Though Savannah has been fortunate in comparison, it has not escaped these changes. According to the University of Georgia, the Savannah area is already seeing twice as many floods each year as it did in 1980. Moreover, Savannah is feeling the heat from rising temperatures. Between 1970 and 2017, the number of 90 degree days in Savannah increased 39%, from 66 to 92. By 2050, scientists expect that to increase to 117, unless emissions decline significantly.

The Resolution

"You want to have a future where you're expecting things to be better, not one where you're expecting things to be worse." - Elon Musk

Goal 1 - 100% Clean Electricity by 2035 and 100% Clean Energy by 2050

These risks call for the rapid decarbonization of our economy. Recognizing this, the City Council unanimously approved the 100% Savannah resolution in March of 2020, committing to 100% safe, clean, and renewable electricity by 2035 and 100% safe, clean, and renewable energy for all other uses (e.g. transportation, heating, and industry) by 2050. Both of these goals are consistent with IPCC guidance for limiting warming to 1.5 degrees C.

Goal 2 - Equity

Additionally, the City Council committed to using this transition as an opportunity to redress historical inequities in the community. As the City invests in workforce training, renewable energy installations, energy efficiency, and clean transportation, priority will be shown to frontline, fence-line, low-income, and minority communities. **To learn more about how equity is central to this plan, look for strategies in subsequent sections that are marked with an asterisk, which means equity will be considered in the implementation, or a double asterisk, which means equity will be the primary intent.**

Other Council Directives

The Council also provided directives for how these goals should be achieved, including:

- Develop and implement policies and programs that lead to a comprehensive effort to successfully support this transition.
- Develop procedures for purchasing equipment, supplies, and services that include methods for minimizing the greenhouse gas emissions caused by producing and using these goods and services.
- Actively pursue public/private partnerships and grant opportunities to be used for this transition.
- Actively pursue collective State policy advocacy to promote these goals with other Georgia municipalities that have passed similar resolutions.

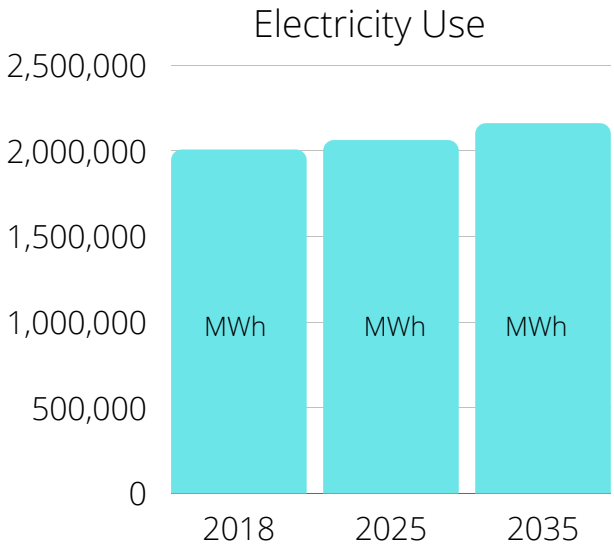
Where We Are Now - Energy

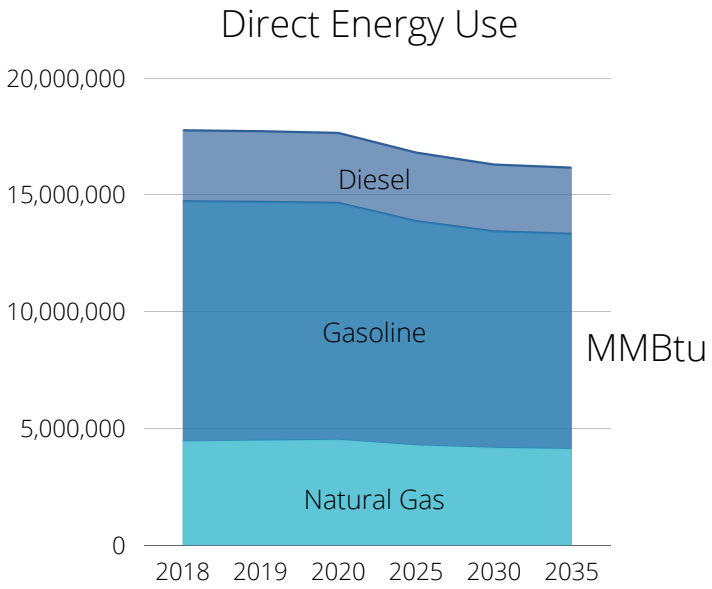
"We are like tenant farmers chopping down the fence around our house for fuel when we should be using Nature's inexhaustible sources of energy - sun, wind and tide. ... I'd put my money on the sun and solar energy. What a source of power!" - Thomas Edison (1931)

According to the consulting firm Greenlink Analytics, Savannah used just over 2 million MWh of electricity in 2018. Under business-as-usual conditions, that is expected to increase slightly to 2.16 million MWh by 2035, due to population growth, economic development, and a modest trend toward using electricity instead of fuel.

Meanwhile, Savannah used roughly 17.8 million MMBtu of energy for heating, transportation, and industry in 2018. This energy came almost exclusively from natural gas, gasoline, and diesel, though small amounts also came from biomass like wood waste and residuals. On an energy basis, these fuels provided the equivalent of 5.2 million MWh of electricity, or the annual output from 15,000 acres of solar farms. Under business-as-usual conditions, this is expected to decline modestly over time, largely due to increasing fuel efficiency standards and electrification trends.

It should be noted that we are not striving for business-as-usual conditions or modest trends. Rather, we will be working to electrify as many cars, buses, heating systems, water heaters, and industrial processes as possible. Thus, we expect our electricity demands by 2035 to be significantly higher than the base case projection shown on the right, and our direct energy use to be significantly lower.



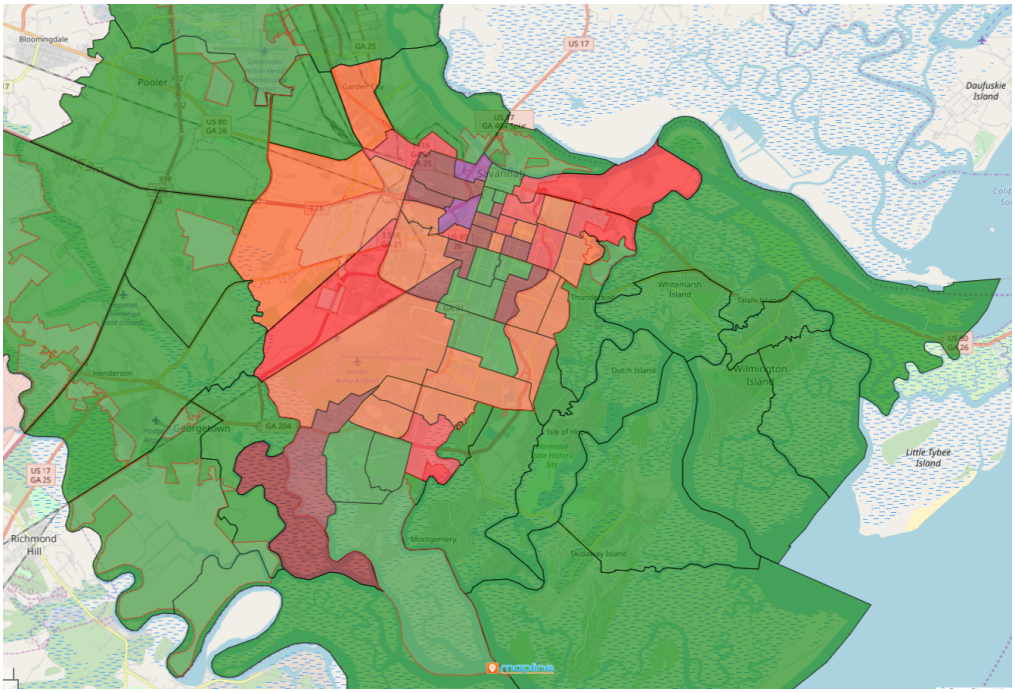


Where We Are Now - Equity

"It's all very well to embrace saving the rain forests and conserving endangered animal species, but such global initiatives don't even begin to impact communities inhabited by people of color." - Hazel M. Johnson, Mother of Environmental Justice

According to the U.S. Census Bureau, 21.9% of Savannah residents live in poverty, which is higher than both the state and national averages. Moreover, poverty disproportionately affects people of color, with more than three in five of those in poverty identifying as Black or African American.

Another metric of interest is a resident's "energy burden," or the percentage of household income that goes toward electric and gas bills. According to the U.S. Department of Housing and Urban Development, the threshold for considering a household to be energy burdened is 6%. As shown in the diagram below, most of the census tracts in the City qualify as energy burdened (orange and red), and a couple census tracts qualify as severely burdened (purple), with 12, 15, or even 20% of income going toward energy bills. This is not unique to Savannah, but is a problem for the state as a whole and the broader South due to low insulation requirements, high air conditioning use, and high reliance on manufactured housing.



Source: Greenlink Analytics

Not Energy Burdened (<6% of income)

Moderately Energy Burdened (6-8% of income)

Energy Burdened (8-10% of income)

Highly Energy Burdened (10-20% of income)

Severely Energy Burdened (>20% of income)

Bringing It All Together - Sustainable Development Goals

"Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security, and women's empowerment. Solutions to one problem must be solutions for all." - Ban Ki-moon, President of South Korea

As we continue to develop and implement this plan, it is important to keep our goals in perspective. First, while this plan is locally focused, we must remember that climate change is a global issue that will require global cooperation to succeed. Put differently, if Savannah achieves its clean energy goals but doesn't motivate and enable others across the country and the world to do the same, much of the climate benefit will not be realized. Second, though the primary goal is a transition to clean energy, that will not be possible without addressing other inequities and challenges in our communities along the way. This is why a good clean energy plan will think beyond electrons and parts per million to envision an equitable economy, an end to poverty, universal access to healthy food, equal opportunities for quality education, and so much more.

The United Nations recognized this interdependency of economic, social, and environmental conditions back in 2015, when it released the 2030 Agenda for Sustainable Development. This agenda, which was adopted by all UN Member Nations, outline 17 "Sustainable Development Goals," which encourage countries to promote prosperity while protecting the planet.

While Savannah is already strong in some of these areas, this plan will help us improve in the areas that we are not and will align our local efforts with an international movement. For more information on how this plan aligns with the Sustainable Development Goals, look for the icons below in the strategy pages in the appendix.

Methodology

How Do We Measure Our Progress?

"Our stewardship of the Earth is brief. We owe it to those who follow to keep that in perspective, to be responsible passengers along the way." - George H. W. Bush

Before we go too far, it is important to clarify what "100% renewable" actually means in the context of this goal. For a City like Savannah that has an ongoing relationship with a utility company, it is not possible to serve load with renewable energy 100% of the time unless the utility has a 100% renewable energy mix. Since our utility does not, Savannah has little choice but to continue to receive non-renewable electricity through 2035.

However, Savannah can play an important role in transforming the energy mix by acquiring enough renewable energy locally or in-state to cover its annual energy use. This energy can come from City-owned or controlled resources, from City-supported resources in the community, and from resources co-built with other 100% Cities in Georgia.

Once this renewable energy is acquired, an additional step must be taken to claim it for our goal. This is accomplished through a national tracking system for Renewable Energy Credits (RECs).

Every megawatt-hour of renewable energy that is produced generates a renewable energy credit. These credits entitle their owners to the "clean" or environmental attributes of the energy. When somebody claims to be using renewable energy, they must substantiate that claim by "retiring" enough credits to cover the claim. This prevents the same unit of energy from being used to support multiple claims.

As an example, if a local restaurant claims to be powered by 100% renewable energy from rooftop solar and storage, it must retire enough RECs to support that claim. When it does, the City will not be able to count that energy toward its 100% goal, because the environmental attributes already "belong" to someone else. Similarly, if the utility builds a solar farm, we can't count that energy towards our goal, because those attributes belong to the utility.

This should not be taken as a lack of interest in our utility's energy mix or the environmental initiatives of local businesses. On the contrary, we intend to engage with all parties, recognizing that our renewable energy targets are but one piece of a broader effort to decarbonize our economy.

We also intend to establish Savannah as a leader in clean energy innovation. As a coastal City, we have a unique opportunity to lead on tidal energy, wave energy, and offshore wind. We also have opportunities to lead on the decarbonization of heavy industry and heavy duty vehicles in partnership with local industries. These investments will not only help us meet our goals but will also increase the amount of renewable energy that is actually delivered to homes and businesses.

Stakeholder Engagement

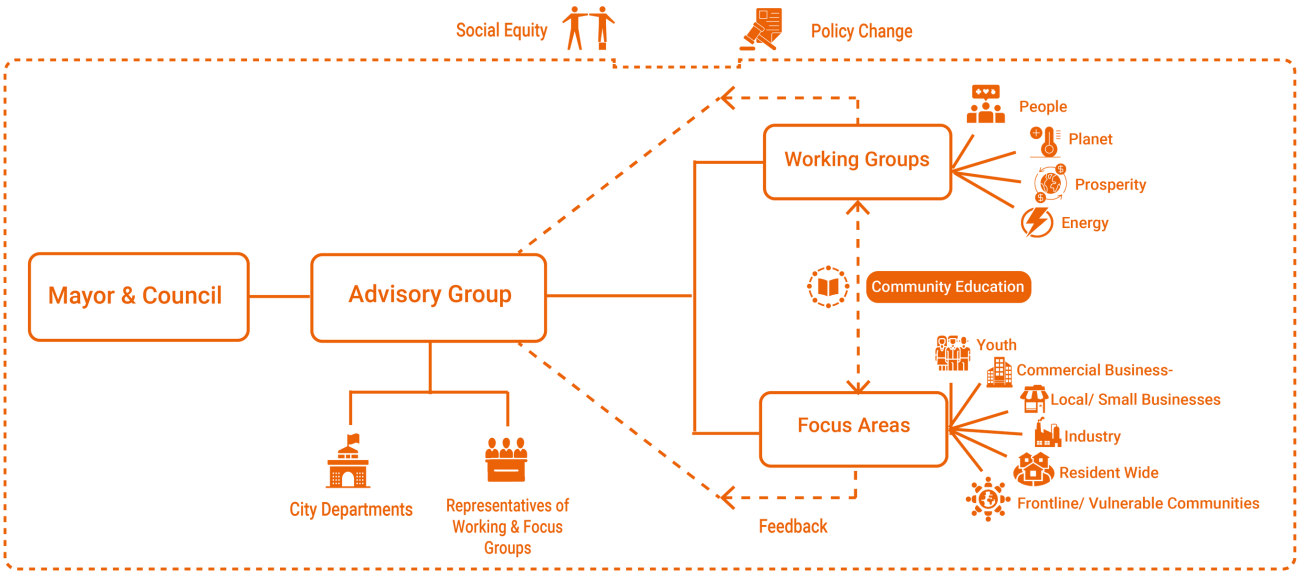
"While the problem can sometimes seem overwhelming, we can turn things around – but we must move beyond climate talk to climate action." - Ted Turner

This plan was the result of a robust stakeholder process that included four community-based working groups and targeted "focus area" outreach.

The first working group, People, focused on equity and the impacts of energy systems on people. The second working group, the Planet group, focused on the imapcts of energy systems on the climate and ecosystems. The third working group, the Prosperity group, focused on how clean energy can be used for local economic development and to improve physical and financial well-being. The final working group, the Energy group, focused on energy systems and technologies.

Meanwhile, we used "focus area" outreach to engage six key constituencies: frontline communities, youth, small businesses, commercial enterprises, industry, and the community as a whole. This outreach, which is ongoing, included efforts like a community survey and a small-business open house.

The feedback from these efforts was evaluated not only by the Sustainability Office, but also by an appointed Advisory Group. This group of representatives from each aldermanic district was created at Council's request to serve as a liasion between the Council and others involved in plan development.



Plan Development

"Climate change has taken on political dimensions. That's odd because I don't see people choosing sides over $E=mc^2$ or other fundamental facts of science." - Neil deGrasse Tyson

While most of these strategies will be pursued at some point, limited time and resources require us to prioritize some strategies over others. Thus, our working groups developed several methods for prioritizing strategies..

First, the group weighed a series of considerations that must be balanced as we develop the plan. This resulted in the following ranking:

1. Clean Energy Impact
2. Racial Equity
3. Health and Well-Being
4. Feasibility
5. Community Wealth
6. Cost-Effectiveness
7. Government Accountability
8. Community Support

Like the benchmarks for energy and equity, these rankings provide a benchmark for our engagement with the community, and admittedly there is much work to be done. If the burden of engagement is left with citizens, as it largely has been, only the most motivated will reach out. The City must make a deliberate effort to engage with citizens in recognition that they may not have the time and headspace to reach out on their own.

These rankings became category weights for a holistic ordering of our strategies. However, this approach had some shortcomings. Specifically, because this approach emphasized feasibility, it reduced the priority of some strategies that will be difficult, but must be pursued if we are to be successful. Further, because the weighting prioritized clean energy impact above all else, it showed little preference for easy actions that provide critical "moral victories."

To address this, the working groups identified overlooked strategies that fell in those groups. These became our short-term and long-term priorities, respectively, while the strategies at the top of our "holistic" list became our mid-term priorities. These timelines are referenced in the document as "what's underway," "what's next," and "long-term goals," along with a "what's already been done" category that highlights existing successes.

With these timeframes, we developed specific action items for each strategy. Importantly, we will not wait to begin on long-term goals, but have outlined short-term actions that will lay a foundation for later work. More information on these sub-strategies can be found in the appendix.

Additionally, we identified a series of "enabling actions" that will maximize the success of our work. These are outlined in the coming pages.

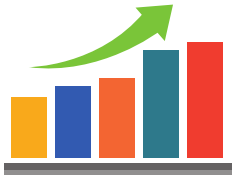
The Plan

Enabling Actions

A few key actions will set us up for lasting success.

FINANCING MODEL

While this plan intends to minimize costs to the City wherever possible, it is often the case that you must spend money to save money. A dedicated financing model for sustainability initiatives will allow us to better utilize grant funds, private capital, and ratepayer funds, to name just a few examples.



METHOD FOR TRACKING PROGRESS

It's difficult to work toward a goal if there is no method for tracking progress. We intend to establish metrics with the consent of the community to regularly track and publicize progress.

GRANT PROTOCOL

Many grant opportunities are available, but sometimes they are easy to miss. It can also be challenging to apply for grants when staff capacity is limited. We intend to develop a protocol for tracking, prioritizing, and applying for grants as they come available.

POLICY AND MARKET ANALYSIS

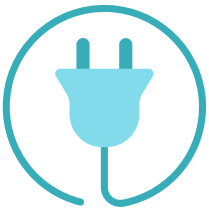
To truly be effective, we need to understand our obstacles and opportunities. We intend to perform detailed analysis of policy barriers, gaps, and opportunities; market conditions; cultural factors; geographic constraints; and any other information that might be relevant to our 100% goals.

PROFESSIONAL ADVOCACY

Some policy barriers are well known, and others will be revealed through our analysis. In either case, we will need a deeply connected professional to advocate on our behalf.

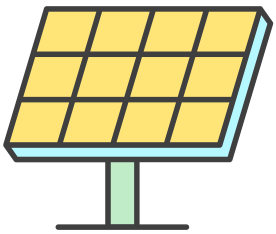
Strategy Overview

We have 5 key areas of focus, which in turn contain 45 strategies and dozens of sub-strategies.



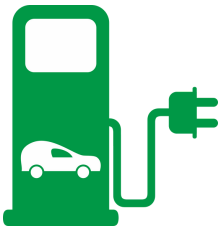
ENERGY EFFICIENCY

A kilowatt-hour saved is significantly cheaper than a kilowatt-hour generated. Modeling results suggest that roughly half of Savannah's energy needs can be met by energy efficiency.



RENEWABLE ENERGY

Once we reduce our energy needs with energy efficiency, we will invest in renewable forms of energy from the sun, wind, water, and earth.



TRANSPORTATION AND MOBILITY

To meet all energy needs with renewable energy by 2050, we will transition to modes of transportation that don't require fossil fuels, like electric cars, buses, and trolleys; bikes; and walking.

COMMUNITY AND ECONOMIC DEVELOPMENT

The clean energy transition will require a talented local workforce. We have a plan to create jobs. grow businesses, and increase disposable income, particularly in disadvantaged communities.

EDUCATION AND ENGAGEMENT

This transition will not be possible without community participation, collaboration, and support. We have a plan to empower the community to shape the transition as they see fit.

Energy Efficiency

Energy Efficiency Report Card

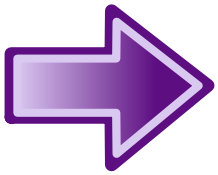
noun. Using less energy to get the same job done.

WHAT HAVE WE ALREADY DONE?

1. Begun conversion of lighting in City buildings to LED
2. Converted more than 98% of street lights and 100% of traffic lights to LED
3. Supported construction of nearly 900 energy-efficient affordable housing units**

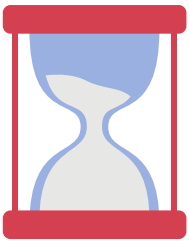
WHAT'S UNDERWAY?

1. Retrofits of City buildings to improve energy efficiency
2. A program to provide affordable pre-weatherization home repairs**
3. Advocacy at the Public Service Commission for the expansion of energy efficiency programs**



WHAT ARE WE STARTING NEXT?

1. Commercial energy efficiency program
2. Heat pump deployment program*
3. Working with local banks to develop inclusive energy efficiency loans**



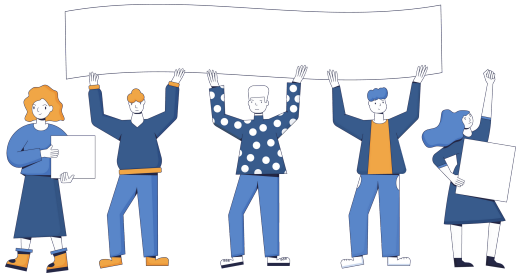
LONG TERM STRATEGIES

1. Community-led bulk purchase programs for heat pumps and weatherization services.*
2. Energy efficiency improvements at wastewater treatment plants
3. Energy efficiency for public and Section 8 housing**

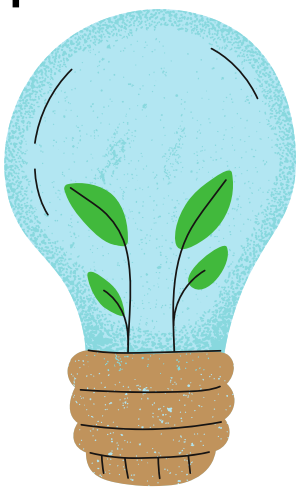
Energy Efficiency - Focus Areas

"Energy efficiency is the fastest, easiest, cheapest way to save energy and money." - Ernest Moniz, Former Secretary of Energy

Advocacy



Operations



Programs

Policies

Energy Efficiency - Advocacy

Savannah has plans to advocate for energy efficiency both individually and with partners

PUBLIC SERVICE COMMISSION*

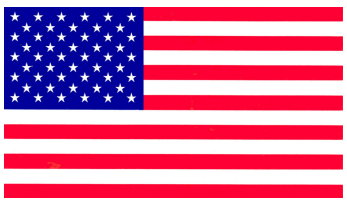
The City of Savannah plans to intervene in Georgia Power's Integrated Resource Plan proceeding at the Public Service Commission. We plan to do this both individually and with other 100% Cities in Georgia

Specifically, we plan to advocate for higher energy efficiency targets, new and more generous energy efficiency incentives, and innovative deployment models like Pay As You Save

STATE LEGISLATURE*

Savannah plans to work with state legislators to make energy efficiency more affordable and accessible. This could include the establishment of low interest loans or inclusive incentives like sales-tax exemptions or rebates.

Savannah also plans to advocate for stronger building codes.



GEORGIA DELEGATION*

Savannah plans to work with the Georgia delegation to increase federal funding for energy efficiency, whether through existing programs like the Weatherization Assistance Program or through new programs.

Savannah also plans to advocate for efficiency to be included in any clean energy standard.

Energy Efficiency - City Operations

Savannah plans to lead by example by improving the efficiency of City facilities

ENERGY SAVINGS PERFORMANCE CONTRACTS

Energy Savings Performance Contracts (ESPCs) allow the City to receive energy efficiency improvements at little to no upfront cost. Instead, the City will pay over time with the energy savings that the improvements produce.

By the end of the year, we intend to release a Request for Proposals for ESPCs for at least 10 City facilities, including City Hall.

LIGHTING

The City has already upgraded a significant portion of its lighting to LEDs, but some work remains. As fixtures reach the end of their useful lives, we plan to ensure that all replacements maximize efficiency.

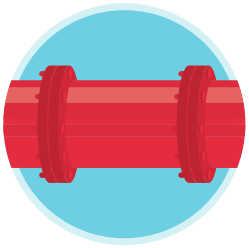
Additionally, we plan to ensure that fixtures that the City does not own, like street lights and traffic lights, transition as well.

WATER AND WASTEWATER EFFICIENCY

Water treatment demands more energy than any other City operation. That's why we plan to identify opportunities for efficiency improvements through equipment upgrades, process improvements, and waste reduction efforts like combined heat and power. We also hope to reduce energy use through consumer education efforts relating to water conservation, capture, and reuse.

Energy Efficiency - Programs

Savannah plans to develop programs to help the community use energy efficiently



LOW-INCOME CLEAN ENERGY PIPELINE**

To achieve maximum efficiency, homes need to go through three steps: pre-weatherization repairs, weatherization, and an HVAC upgrade. We intend to create accessible programs for each step so participants can receive the maximum energy-saving benefit.

ALL-INCOME ENERGY EFFICIENCY OFFERINGS

While low-income citizens will receive priority in terms of City assistance, we intend to provide easy, affordable energy efficiency offerings for families of all-income levels, as well as commercial and industrial entities.

INCLUSIVE FINANCING**

In many cases, energy savings will pay for energy efficiency work many times over. However, none of that is possible if somebody doesn't have access to financing for the initial investment. We are working with local and regional banks to make sure that families can access financing regardless of their credit score.

AFFORDABLE HOUSING**

Despite historic investments in energy-efficient affordable housing, Savannah has a long way to go in making public and subsidized housing less energy intensive. We plan to work with the Housing Authority of Savannah and private landlords and developers to ensure that affordable housing minimizes energy bills for tenants.

COMMUNITY BULK PURCHASE - ENERGY EFFICIENCY*

Community bulk purchases bring both economies of scale (e.g. better prices) and community momentum. That is very powerful when time and money are of the essence.

Energy Efficiency - Policies

The City Council should establish policies to reduce energy use in City operations, as well as community-wide

SUSTAINABLE BUILDING POLICY

Energy efficiency work is often significantly cheaper for new construction than existing construction. Because of this, the City should set efficiency or greenhouse gas standards for new buildings and major renovations.

MUNICIPAL EFFICIENT PROCUREMENT POLICY

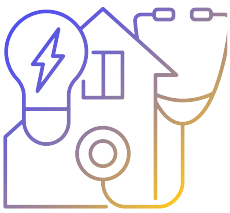
The City's 100% resolution requires the City to develop a procurement process that minimizes greenhouse gas emissions from both production and use. In practice, this means buying the most efficient equipment, prioritizing local products and services, and switching away from energy intensive materials when possible.

SMART GROWTH STRATEGIES*

Savannah is going to continue to grow in both population and GDP. The City needs to develop a framework for ensuring that this growth does not interfere with our clean energy goals.

RECONCILIATION OF HISTORY AND EFFICIENCY

Savannah is known for its history, but history is not always known for its energy efficiency. The City should develop policies that balance preservation of historic character with energy efficiency.



DISCLOSURE UPON SALE ORDINANCE

Most homebuyers don't think about energy costs when purchasing a home, but these costs can make a tremendous difference in monthly budgets. The City should pass an ordinance to require disclosure of home energy ratings upon sale to increase buyers' understanding of energy costs and incentivize efficiency.

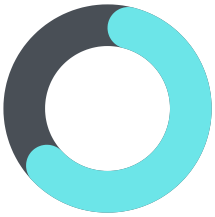
Renewable Energy

Renewable Energy Report Card

noun. Energy from naturally replenishing or virtually inexhaustible sources.

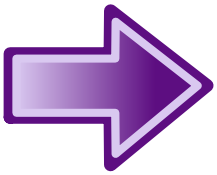
WHAT HAVE WE ALREADY DONE?

1. Organized a community-led Solarize campaign*
2. Achieved national recognition (SolSmart Bronze) for reducing barriers to solar
3. Adopted an automated permitting process for solar (Solar APP+)



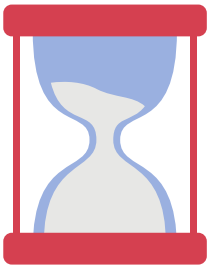
WHAT'S UNDERWAY?

1. A Request for Proposals to put solar on City buildings.
2. A program to increase access to federal tax incentives for renewable energy**
3. Advocacy at the Public Service Commission for fair compensation for solar*



WHAT ARE WE STARTING NEXT?

1. Conduct outreach to help businesses understand the benefits of solar
2. Work with local banks to develop inclusive renewable energy loans**
3. Develop a program to support solar investment in our community*



LONG TERM STRATEGIES

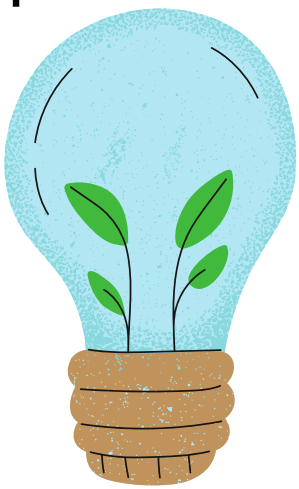
1. Partner with other 100% Cities and institutions in Georgia to build a large renewable energy project
2. Develop innovative pilot projects for renewable energy technologies
3. Develop renewable energy microgrids at critical locations, like storm shelters*

Renewable Energy - Categories of Focus

"As the saying goes, the Stone Age did not end because we ran out of stones; we transitioned to better solutions. The same opportunity lies before us with . . . clean energy." - Steven Chu, Former Secretary of Energy

Advocacy

Operations



Programs

Innovation

Renewable Energy - Advocacy

Savannah has plans to advocate for renewable energy both individually and with partners

PUBLIC SERVICE COMMISSION*

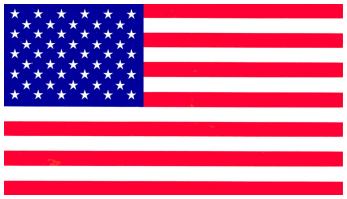
The City of Savannah plans to intervene in Georgia Power's Integrated Resource Plan proceeding at the Public Service Commission. We plan to do this both individually and with other 100% Cities in Georgia

We also plan to advocate for the the Commission to raise or remove a 5,000 person, 32 MW cap on net metering.

STATE LEGISLATURE*

Savannah plans to work with state legislators to make solar more affordable and accessible. This could include low interest loans or inclusive incentives, like sales-tax exemptions or rebates.

Savannah also plans to advocate for the removal of the net metering cap, in case the PSC does not do it.



GEORGIA DELEGATION*

Savannah plans to work with the Georgia delegation to increase federal funding for renewables, particularly in low-income and environmental justice communities. Savannah also wants to see increased support for innovative pilot projects and a strong clean energy standard.

Renewable Energy - Operations

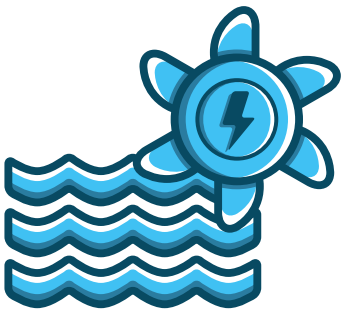
Savannah plans to lead by example by using solar to power City operations

SOLAR ENERGY PROCUREMENT AGREEMENTS

In November of 2021, the City released a Request for Proposals to put solar at 22 City facilities such as fire stations, wastewater treatment plants, and the new arena. We plan to finance these systems through Solar Energy Procurement Agreements, which allow the City to go solar at no upfront cost.

GEORGIA RENEWABLES COHORT

Savannah is in ongoing conversations with other 100% Cities and institutions in Georgia to potentially partner on a large renewable project, either through a virtual power purchase agreement or an unbundled REC purchase from a local project.



NON-SOLAR RENEWABLES

While solar is the most obvious renewable choice for Savannah, we will need resources that can perform at all hours and across seasons. In the short term, we intend to explore options like low-impact hydro and hydrokinetic in the CIty's water system. In the long term, we hope to explore options like offshore wind and tidal energy.

Renewable Energy - Programs

Savannah plans to establish several programs to help the community use renewable energy

COMMUNITY BULK PURCHASE - SOLAR*

Community bulk purchases programs, like Solarize campaigns, provide economies of scale (e.g. better prices) and community momentum. Both are essential when trying to achieve a time-sensitive goal cost-effectively.

COMMUNITY REC PURCHASES**

To substantiate its claim of using 100% renewable energy, Savannah will need to acquire lots of renewable energy credits. Purchasing these from renewable projects in the community will achieve two goals at once--increasing financial access to renewables, particularly for low-income families, and prioritizing local renewable energy development over development further away.

INCLUSIVE FINANCING**

Energy savings will often pay for a renewable energy system many times over. However, none of that is possible if somebody can't access financing for the initial investment. We are working with local and regional banks to help families can access financing regardless of their credit score.

AFFORDABLE HOUSING**

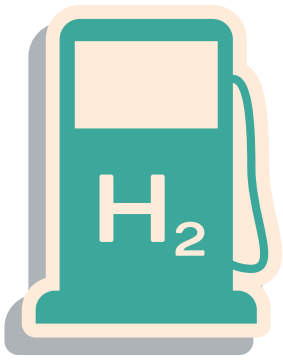
Public and subsidized housing is often more energy intensive than newer, market-rate housing. As a result, many residents spend a disproportionate amount of their income on energy bills. Solar and other renewables can reduce energy burdens, but only if they are acessible to everyone. We plan to work with the Housing Authority of Savannah, private landlords, and developers to ensure that money-saving renewables are just as accessible for affordable housing developments as market-rate ones.

Renewable Energy - Innovation

Savannah hopes to distinguish itself as a leader in the renewable energy space through innovative pilot projects

ADVANCED DEMONSTRATION PROJECTS

As a coastal City, Savannah is well-suited to be a demonstration site for ocean-based renewable energy technologies, like offshore wind, wave energy, and tidal energy. Savannah plans to issue a Request for Information to encourage companies to test their technologies here. We also plan to closely monitor federal funding opportunities for these projects.



INDUSTRIAL AND TRANSPORATION DECARBONIZATION*

While many processes can be decarbonized through electrification, weight considerations and temperature demands can make it poorly suited for others. Savannah will monitor opportunities for industrial and transportation decarbonization pilots involving zero carbon fuels like green hydrogen and green ammonia or low carbon fuels like Sustainable Aviation Fuel.

BETTER USE OF UNEXPLOITED ENERGY

Tremendous amounts of energy are wasted every day in the form of heat, noise, or untapped kinetic energy. Savannah intends to evaluate and install technologies that capture and use this otherwise "lost" energy. Examples include capturing waste heat from the City's wastewater system, capturing methane gas from landfills, and installing micro-turbines in the City's water distribution system.

Transportation and Mobility

Transportation and Mobility Report Card

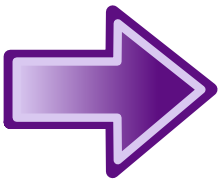
noun. Services or conditions that allow people or goods to be moved from one place to another freely and easily.

WHAT HAVE WE ALREADY DONE?

1. Installed free-to-use electric vehicle chargers in parking garages
2. Purchased 25 electric vehicles for the City fleet
3. Expanded bike paths and pedestrian trail networks*

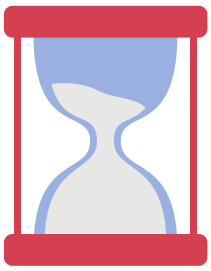
WHAT'S UNDERWAY?

1. Further electrification of the City fleet
2. Installation of more public EV chargers, including on streets*
3. Construction of new bike lanes, sidewalks, and trails*



WHAT ARE WE STARTING NEXT?

1. Developing EV carshare programs*
2. Developing EV bulk purchase programs (Solarize for EVs)*
3. Responsible introduction of electric bike- and scooter-share programs*



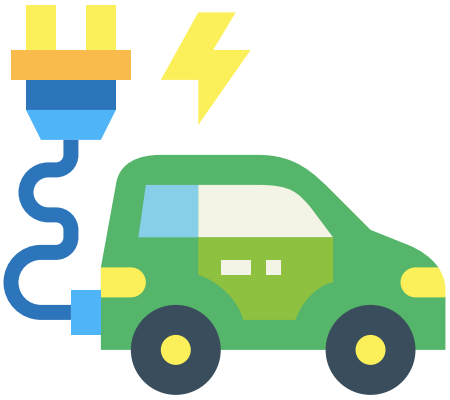
LONG TERM STRATEGIES

1. Work with Chatham County to improve and electrify public transit*
2. Work with Savannah-Chatham School district to electrify school buses
3. Achieve "Complete Streets" City-wide*
4. Develop additional public transit options, like rail

Transportation and Mobility - Categories of Focus

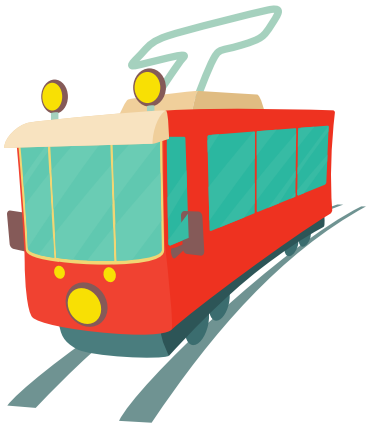
"I've starred in a lot of science fiction movies and, let me tell you something, climate change is not science fiction. This is a battle in the real world, it is impacting us right now." - Arnold Schwarzenegger

Personal Vehicles



City Vehicles

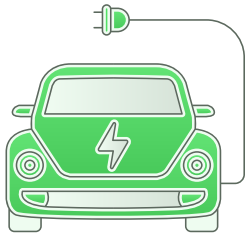
Public Transit



Pedestrian Mobility

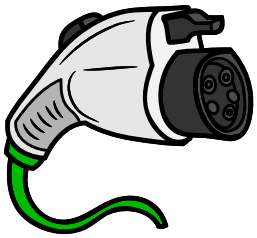
Transportation and Mobility - Personal Vehicles

Savannah plans to help citizens switch from gas and diesel cars to electric



COMMUNITY BULK PURCHASE - ELECTRIC VEHICLES*

Community bulk purchases programs provide economies of scale (e.g. better prices) and community momentum. These are especially important for emerging technologies like EVs that are perceived as expensive and unfamiliar.



CHARGING INFRASTRUCTURE BUILDOUT*

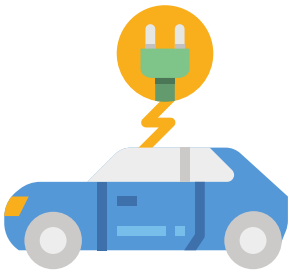
Families can't feel confident buying an EV until they have good options available for charging. The City plans to build consumer confidence by putting more chargers in parking garages, on street lights and power poles, and at popular destinations.

DEALER INCENTIVES

Even when families want to purchase an EV, it can be difficult to find one nearby for a test drive. The City plans to work with local dealerships to support the availability of EVs on local lots.

CUSTOMER INCENTIVES

While EVs already provide many benefits, including reduced maintenance costs, the City plans to offer additional incentives to encourage adoption of EVs, such as preferential or free parking at popular destinations.

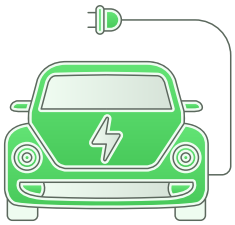


ELECTRIC CAR, BIKE, AND SCOOTER SHARE**

Many people can't afford a car or don't use one enough to justify the expense. Electric car, bike, and scooter shares would provide new mobility options for people with little to no environmental impact, while also promoting community comfort with electric mobility.

Transportation and Mobility - City Vehicles

Savannah plans to lead by example in transitioning its fleet to electric



LIGHT-DUTY FLEET

The conversion of the City's light duty fleet is already underway. However, there is a long way to go. As light duty vehicles reach the end of their operating lives, the City plans to replace each of them with electric alternatives.

LEADING BY EXAMPLE

While any transition to electric vehicles is good, the City should prioritize the vehicles used by City Administration. As City leaders, these individuals are well-equipped to lead the charge and use their experience to assuage community concerns.

HEAVY-DUTY FLEET

While heavy duty vehicles are harder to electrify because of the weight of the batteries required, much progress has been made and continues to be made in this area. As electric garbage trucks, fire trucks, and other heavy duty vehicles become more available, the City intends to electrify these vehicles along with its light duty fleet.

SPECIALTY VEHICLES

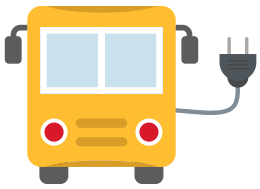
The City is sensitive to the operational demands of certain types of vehicles, like police cars. That's why it plans to pilot electric vehicles for these applications, rather than require a transition right away. This phased, controlled approach will allow protocols and operational experience to be developed over time with minimal impacts to the job at hand.

Transportation and Mobility - Public Transit

While electric vehicles are a good option, the better option is to reduce total vehicle miles traveled

PUBLIC TRANSIT IMPROVEMENT*

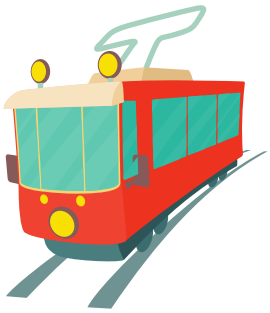
Electrified or not, public transit is good for the environment because it moves more people with less fuel. However, that benefit cannot be realized if people do not use it. The City will work closely with Chatham Area Transit to make public transit a competitive option for commutes, errands, and leisure.



PUBLIC TRANSIT ELECTRIFICATION*

As more people use public transit, the environmental benefit should be maximized through electrification.

Though not public transit in the typical sense, this initiative will also explore options for electrifying school buses.



NEW PUBLIC TRANSIT OPTIONS

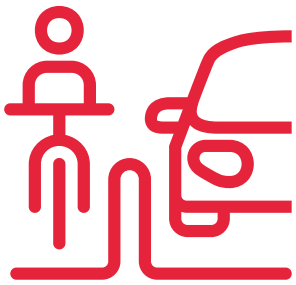
For now, public transit in Savannah is limited to buses and ferries. However, there is potential for significant benefits from new options like electric trams and trolleys. In particular, a tram from the airport to Downtown would reduce vehicle emissions significantly.

Transportation and Mobility - Pedestrian Mobility

Of all modes of mobility, pedestrian modes like walking and biking are best for the environment

PEDESTRIAN MOBILITY IMPROVEMENT*

Sidewalks, trails, and bike paths are only useful if they are unobstructed and well-maintained. The City intends to better enforce fines against individuals who park on sidewalks or in bike lanes, and it also intends to further improve maintenance and mowing in these areas.



PEDESTRIAN MOBILITY EXPANSION*

Streets should be just as accessible for walkers and bikers as they are for cars. The City plans to implement "Complete Streets" per City ordinance and ensure that citizens can safely get wherever they need by bike or foot.

NEXUS OF PUBLIC TRANSIT AND PEDESTRIAN MOBILITY*

Many bus stops around Savannah are not accesible by sidewalks or bike lanes. Savannah plans to not only address this problem by extending sidewalks and bikelanes to these stops, but also by adding bike racks for those who prefer to access bus stops on their bikes.

Community and Economic Development

Community & Economic Development Report Card

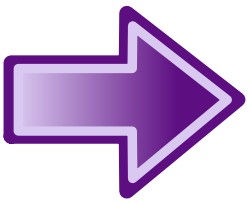
noun. The process of improving the economic well-being and quality of life of an area.

WHAT HAVE WE ALREADY DONE?

1. Workforce training through the City's tree nursery program.**
2. Presented to children's summer programs and the Savannah Youth Council about jobs in sustainability and environmental protection.

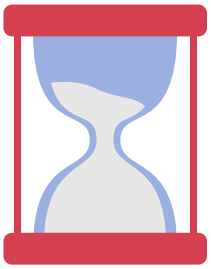
WHAT'S UNDERWAY?

1. Workforce and entrepreneurship training through the City's solar solicitation**
2. Workforce training through the City's proposed pre-weatherization repair grant**
3. Workforce training through the Savannah-Atlanta Solarize campaign**



WHAT ARE WE STARTING NEXT?

1. Partnering with existing workforce training programs to incorporate "green skills"**
2. Providing resources to workforce training graduates to support creation of small businesses**



LONG TERM STRATEGIES

1. Developing strategies for filling gaps in the market, such as geothermal heating technicians
2. Partnering with local colleges and universities to help residents earn certificates or degrees that lead to jobs in the clean energy economy

Community & Economic Development - Categories of Focus

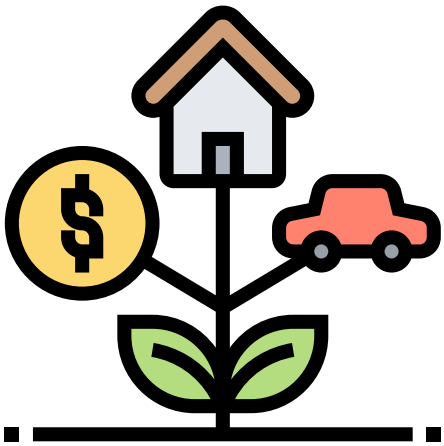
"The old rules may say we can't protect our environment and promote economic growth at the same time, but in America, we've always used new technologies . . . to make the old rules obsolete." - Barack Obama

Jobs

Businesses

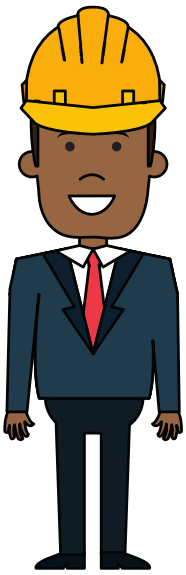
Disposable Income

Wealth



Community & Economic Development - Jobs

The clean energy transition is our chance to move everybody into family-sustaining jobs, but training and upskilling will be required.



WORKFORCE TRAINING**

The clean energy transition will increase demand for existing professions and create demand for entirely new professions. To meet this need, we plan to establish training programs that combine on-the-job training with classroom instruction through local partners.

Importantly, these jobs will encompass many sectors and all levels of education and experience. We will need solar installers and solar sales representatives; HVAC technicians and weatherization contractors; project managers; roofers; electricians; general contractors; cement masons; loan officers; grant writers; and commercial drivers, to name only a few.

EXISTING PROGRAMS*

Organizations around the City already offer workforce training programs for youth, re-entering citizens, and veterans. Many of these programs can easily be adapted to the specific needs of our clean energy plan.

LOCAL WORKFORCE PREFERENCE*

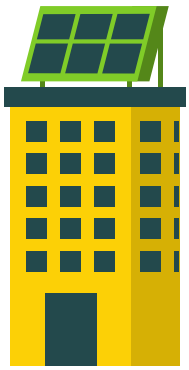
Whenever possible, the City will prioritize local companies for its work. Moreover, when a local company is not available, the City will partner with selected companies to build capacity for that profession.

Community & Economic Development - Businesses

To be successful, Savannah will need to develop local capacity in clean energy industries

SMALL BUSINESS SUPPORT**

Starting a business is easier when you have access to a supportive professional network, mentors, and affordable start-up capital. The City plans to partner with existing business incubators to increases resources and support for aspiring business owners, particularly those from minority communities



GREEN PROCUREMENT POLICY

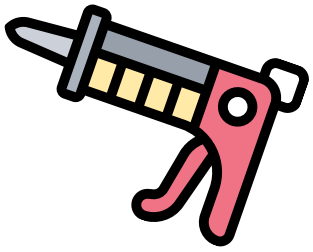
Achieving 100% Savannah will take all of us, including the business community. The City plans to support businesses that choose to lead in the clean energy transition with a preferential "green" procurement policy. As an example, if the City needs catering for an event, businesses that have stepped up to improve efficiency, electrify their vehicles, or add solar will get an edge in the procurement process.

NEXUS OF PROGRAMS AND WORKFORCE TRAINING**

While the existing workforce is a good start, we will need a larger workforce to achieve our goal on time. To maximize efficiency, the City plans to incorporate workforce training into each of its clean energy programs, so programs can scale with the workforce and new businesses can have a steady stream of demand.

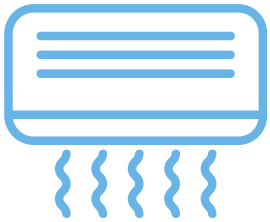
Community & Economic Development - Disposable Income

Savannhians spend a disproportionate amount of income on energy bills. Efficiency and solar can help reduce these costs.



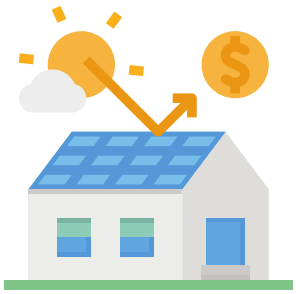
WEATHERIZATION*

"Weatherization" encompasses several building envelope improvements such as air sealing and attic insulation that keep warm or cool air in the building as appropriate for the season. This saves money by reducing heating and cooling demands. The City will hold events and conduct outreach to increase public awareness of free or low cost weatherization services.



HVAC*

Space heating and cooling are the biggest energy demands for most households. High efficiency heating and cooling systems, like heat pumps, can reduce these costs substantially and improve indoor air quality in the process. The City plans to work with private partners to develop inclusive, low-cost deployment programs for these systems.



SOLAR*

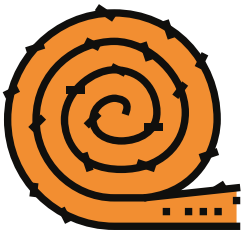
When customers buy electricity from a utility, they pay for fuel, pollution control, transmission, distribution, and much more. With a solar energy system, all of those costs are avoided because energy is generated on-site without fuel and without pollution. The City plans to work with local solar installers and financial institutions to increase access to solar.

Community & Economic Development - Wealth

We have a vision for financial resilience that goes beyond disposable income to allow for true wealth building.

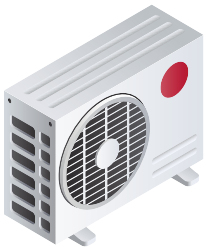
BUSINESS CREATION**

While workforce training is an excellent start, true wealth-building comes from starting and growing a business. We intend to provide resources to help training receipients start businesses and to help existing business expand their scope of services.



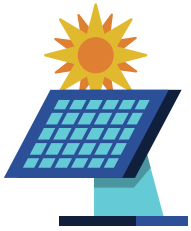
WEATHERIZATION*

With the exception of more temporary measures like weather stripping, weatherization permanently improves the building envelope of the home. This in turn improves the home's value, increasing the equity that is available to finance renovations, consolidate debts, or even pay for retirement.



HVAC*

Though most HVAC systems have limited lifespans, homes with high efficiency HVAC systems are appraised at higher rates than homes with less efficient systems. This boost will only increase if the proposed HERS disclosure ordinance gets passed.



SOLAR*

Like HVAC systems, solar has a limited lifespan. However, homes with solar systems appraise at higher rates than homes without solar systems.

Education and Engagement

Education & Engagement Report Card

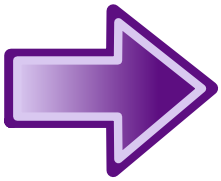
nouns. Learning or the acquisition of knowledge; the feeling of being involved in a particular activity

WHAT HAVE WE ALREADY DONE?

1. Issued a survey to gauge community priorities for 100% Savannah
2. Developed this plan through community-led working and advisory groups
3. Held an open house to educate small businesses about how they can participate in 100% Savannah.

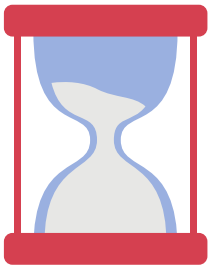
WHAT'S UNDERWAY?

1. Community events to increase awareness of free weatherization programs**
2. Partnering with other 100% Cities to intervene in Georgia Power IRP proceeding
3. Efforts to engage all departments in the City for 100% Savannah



WHAT ARE WE STARTING NEXT?

1. Building out a comprehensive community outreach plan*
2. Engaging Savannah's broader business community to green their operations and advocate for policy changes
3. Creating a portal for information related to clean energy, incentive programs, and financing models.



LONG TERM STRATEGIES

1. Partner with Tybee Island for a coastal renewable energy pilot project
2. Build out a strategy for state and federal policy advocacy
3. Partner with other 100% Cities in Georgia on a large renewable energy project

Education & Engagement - Categories of Focus

"Nature once determined how we survive, now we determine how nature survives." - Sir David Attenborough

Community

Business

City Government

SAVANNAH

Other Partners

Education & Engagement - Community

Durable change is only possible with feedback, consent, and active participation from the community.

COMMUNITY OUTREACH EVENTS**

In many cases, the best communication happens in person. We plan to have family-friendly outreach events, particularly in Savannah's more underserved communities, to promote programs, facilitate sign-ups, and educate the public.

SOCIAL MEDIA

Young people will be critical leaders in the 100% Savannah effort. To reach them where they are most easily found, we will develop a robust social media presence to promote participation in programs, raise awareness, and drive engagement.

TRADITIONAL OUTREACH*

Sometimes we need to stick with a good thing. Outreach through TV, radio, newspaper, and outdoor advertisements will be valuable for reaching older or less connected demographics. Additionally, we will try to connect with newcomers through flyers included in move-in materials and water bills.

INFORMATION PORTAL

The clean energy transition raises many questions. How much energy usage is "a lot?" What does my home need to be "solar-ready?" What heating system is most efficient and how can I pay for it? The City intends to work with partners to develop a one-stop shop for everything people need to know to make climate-friendly choices.

Education & Engagement - Business

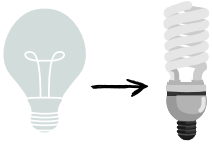
Businesses represent a large part of the challenge but an even larger piece of the solution.

GREENING OPERATIONS

Businesses large and small contribute to our CIty's energy use and emissions. We intend to partner with organizations like the Savannah Economic Development Authority and the Chambers of Commerce to educate businesses about affordable ways to green their operations.

ADVOCACY

Businesses carry a tremendous amount of political influence, especially at a state and national scale. If businesses organize behind clean energy policies, it will increase the likelihood of those policies becoming reality.



MARKET TRANSFORMATION

Many of the technologies that we need for the clean energy transition already exist. However, they are not always available or known in every community. Businesses that sell or install these products can lead the way in encouraging adoption by changing what they stock in their stores..

COMMUNITY SUPPORT

Many businesses are very engaged in their communities, donating money, services, goods, and time to different causes. If businesses channel even a percentage of these donations toward 100% Savannah intiatives, it will make a tremendous difference.

Education & Engagement - City

While the Sustainability Office will lead the way, it will take every department in the City to achieve this goal.

HOUSING AND NEIGHBORHOOD SERVICES**

Weatherizing and solarizing homes will be a huge part of our 100% Savannah strategy. To do this successfully, we will need to work with Housing to identify homes that are ready for solar and energy efficiency and reach those that aren't.

WATER RESOURCES

Water treatment and wastewater treatment are very energy intensive. To reduce emissions from City operations, we must begin by bringing energy efficiency and renewable energy into these processes.

Additionally, the water department interacts with nearly every citizen, so it represents a promising avenue for spreading the word about different programs.

MOBILITY AND PARKING SERVICES*

Transportation represents a significant chunk of the City's emissions. Reducing these emissions will require the introduction of new transit options (e.g. EV car share) and more efficient use of existing options (e.g. more carpooling).

ECONOMIC DEVELOPMENT**

Workforce training and business development will be essential if we want to have a just, equitable transition. We intend to work closely with Economic Development to incorporate our 100% Savannah goals into their efforts in those areas.

Education & Engagement - Other Partners

We are not the first to take this step and we will not be the last. Partnering with and learning from others who are working in this space will be critical to our success.

OTHER 100% CITIES

While it may not feel like it, there are dozens of 100% Cities across the Southeast, and we have a lot to learn from them. We intend to do so through direct partnerships and through regional organizations like the Southeast Sustainability Directors' Network.

NATIONAL AND INTERNATIONAL NETWORKS

Though the Southeast is culturally and politically different from the rest of the country and the world, there is a lot to be learned from national and international leaders on climate action. There's also tremendous strength in advocacy when governments across the country and around the world work together.

NEARBY GOVERNMENTS AND INSTITUTIONS

To maximize its potential, Savannah will need to work with nearby governments like Tybee Island, Thunderbolt, Port Wentworth, Pooler and Chatham County, as well as local institutions like colleges and universities. While the primary focus will be achieving specific goals, like electrifying school buses or investing in ocean-based energy, an overarching goal is to encourage these institutions to follow Savannah's lead in the transition to renewable energy.

Next Steps

While this plan is a useful roadmap, it is not limiting. Rather, this plan will serve as a starting point and a framework for evaluating new opportunities as they arise.

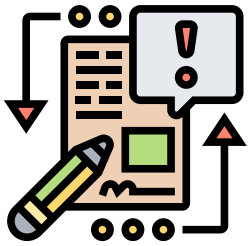
The beauty of this plan is that it will continue to evolve. As new technologies are developed and new policies are put in place, this plan will change accordingly.

INTERIM TARGETS

In accordance with the 100% Resolution, we intend to meet or exceed interim targets for 30% renewable energy by 2025 and 50% renewable energy by 2030.

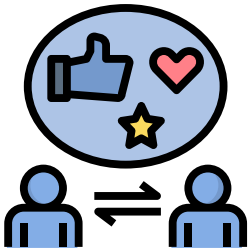
ANNUAL PRESENTATIONS TO COUNCIL

For transparency, we intend to brief the Council on our progress at least annually, and more frequently as requested.



FREQUENT REVISIONS

As required by the resolution, we intend to revise and update the plan at least every three years. This will allow us to respond to changing policies, technologies, and cultural conditions.



PUBLIC FEEDBACK

As with policies and technologies, community priorities will change over time. We intend to provide ongoing opportunities for community feedback through subject-area working groups, town halls, and other mechanisms.

Conclusion

The most important conclusion that should be drawn from this report is that while ambitious, 100% Savannah is not only possible, but vital to the wellbeing of our community. However, the speed of our progress and the broader effects of our efforts will depend largely on progress in four key areas.

Funding

Even though the clean energy transition provides significant savings opportunities, we will need some funding to unlock them.

Partnerships

We cannot do this work alone. We need active partners in community organizations, business, industry, faith communities, and academia.

Policy Advocacy

Our work is easier and cheaper when policy doesn't get in the way, We need community members, business leaders, and others to mobilize for policy change at the local, state, and federal level.

Staffing

While we are trying to meet our goals with as little City funding as possible, finding grants and developing programs is much easier when we have more staff capacity.

Acknowledgements

Many thanks to those who played a role in the development of this plan

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Harambee House: Citizens for Environmental Justice
Environment Georgia
The Turner Foundation, Inc.
Greenlink Analytics
SCAD Design for Sustainability Program
Home Diagnostic Solutions of Savannah

City of Savannah Sustainability Office

https://www.savannahga.gov/Sustainability
801 E. Gwinnett Street
Savannah, GA 31401

Appendix - Full Strategy List

Appendix - Full Strategy List

The following pages include the full list of strategies that was developed by the working groups, complete with description, sub-strategies, budget information, and proposed timelines. While we have tried to include as much information as possible, many of these proposals are too early-stage to have a clear understanding of costs and timelines. As project activities begin and provide clarity, we will update this report with more accurate estimates.

Budget information for each strategy will include an overall indication of project cost as indicated by a series of dollar signs. They have the following meanings:

- $ - The estimated cost to the City is less than $100,000
- $$ - The estimated cost to the City is between $100,000 and $1,000,000
- $$$ - The estimated cost to the City is between $1,000,000 and $5,000,000
- $$$$ - The estimated cost to the City is more than $5,000,000

It is important to note that these estimates represent *upfront* costs. However, many of these strategies are expected to generate cost savings over time. Budget information will also include our plans for leveraging outside funding sources, such as grant funds, private capital, and ratepayer funds.

Timeline information for each strategy will include proposed near-term, mid-term, and long-term actions. These terms are defined as follows:

- Near Term - Completed or begun by 2025
- Mid Term - Completed or begun by 2035
- Long Term - Completed or begun by 2050

1 Dedicated funding for Sustainability initiatives ($)

While we are making every effort to minimize use of City funding, some funding will be necessary to make full use of grant funds, ratepayer funds, and private funds. These funds can be raised in several ways without negatively impacting low-income families.

Possible Options:

- Sustainable Building Deposit Model - To receive a Certificate of Occupancy or Certificate of Completion for commercial construction or expansion, a contractor must post a sustainability fee payment bond for a percentage of the total construction valuation of the building permit. If the building achieves LEED Gold, Platinum, or Zero Certification, the full value will be refunded. Lesser certifications will receive a partial refund, and failure to achieve certification will result in forefeiture. These unrefunded portions will flow into a sustainability fund.
- Municipal Franchise Fee Model - The City receives fees every year from utility companies for use of the City's rights-of-way. Some Cities have chosen to divert any increase in that fee above an agreed upon annual growth rate to sustainability initiatives.
- Shared Savings Model - The City is working hard to improve the efficiency of City buildings, which has the potential to save thousands of dollars per year. Some Cities have chosen to allocate a portion of these savings to sustainability initiatives.
- Aluminum Cup Deposit Program - the City recently rolled out an aluminum cup program to reduce use of single-use plastic. Rather than have customers pay to use and keep the cup, the City could establish a deposit program where customers pay to use the cup but have the opportunity to get their money back if they return it to a participating restaurant or bar that could sanitize and reuse or recycle it. Revenue from unreturned cups would go to sustainability initiatives.

2 Establish a method for tracking key metrics and sharing those metrics with the public ($)

To achieve our long-term goals, we must develop a method for tracking progress. In addition to the interim goals from the resolution of 30% renewable electricity by 2025 and 50% renewable electricity by 2030, we propose the following metrics:

Key Indicator	Target
Households Improved	Weatherize and electrify 25,000 homes by 2035
Workers Trained	300 by 2025
Local Solar	100 MW of local solar by 2030
Electric Vehicles	15,000 EVs on the road by 2035

Progress on each of these metrics, along with any metrics that are recommended in the future, will be publicized through an online dashboard.

3 Establish a protocol for monitoring and applying for grant funds ($)

Grant funds will be crucial for achieving our goals. However, the time involved in applying for and managing a grant demands that we establish a protocol for finding, prioritizing, and applying for grants.

We propose the following to improve our ability to find grants:

- Hire a new Sustainability staff member who is specifically charged with monitoring and applying for grant opportunities
- Allocate funding for a subscription to a funder database.

Our proposed criteria for prioritizing grant applications are, in order:

- Flexibility or "few strings"
- Larger dollar values (preferably >$1 million)
- Low or no match requirement
- Potential for strategic partnerships
- Straightforward reporting requirements
- Short, easy applications

Additionally, we propose the following to simplify the grant application process:

- As necessary, allocate funding for program or project design to have a few key projects "shovel-ready" for grant applications.
- Establish a sustainability-focused "grant network" to facilitate coalition building and opportunity sharing and to prevent unnecessary competition.

4 Conduct Policy and Market Analysis to Identify Barriers and Opportunities ($)

Albert Einstein once said, "If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and five minutes thinking about solutions." Put differently, we must deeply understand our obstacles to generate innovative solutions. This is why we plan to conduct a holistic analysis of the policy, market, geographic, and cultural barriers to our work. As currently envisioned, this analysis will be undertaken by a new set of working groups that will meet quarterly. These include:

A Policy and Legal Working Group, consisting of:

- Experts in various areas of law;
- Low-income advocates;
- Current or former elected officials or staff members; and
- Academic experts

A Grants Working Group, consisting of representatives from:

- Local community groups;
- Statewide non-profits;
- Other 100% cities; and
- Academia

An Innovation Working Group; consisting of representatives from:

- The community
- Mission-driven financial institutions
- Energy-related industries (e.g. solar and energy efficiency)
- Academia
- Relevant boards (e.g. MPC, CAT board, school board, etc.)
- Local and regional non-profits;
- Other relevant industries (e.g. real estate)

5 Hire an experienced lobbyist to advocate on our behalf ($$)

While there is much that we can do without policy change, many of our proposals would be much easier with a supportive policy environment. Though we plan to do some direct outreach to elected officials at the state and federal level, our impact will likely be greater if we channel our advocacy through a deeply connected professional.

Areas of focus at the state level:

- Scrap the cap/net metering reform
- Rollback of House Bill 150, which prevents municipalities from creating policies that prohibit or have the effect of prohibiting connection or reconnection to a particular utility service.
- Clear authority to pursue a "stretch" building code
- Community solar legislation

Areas of focus at the national level:

- Direct pay for clean energy tax incentives
- Passage of a strong clean energy standard
- Increased funding for Weatherization Assistance Program
- Establishment of a national green bank

Budget:

- $40,000 - $60,000 to have a lobbyist at the state level for the legislative session (January to April)
- $80,000 - $120,000 to have a lobbyist year-round at the national level

6 Low-Income Clean Energy Pipeline ($$$$)

This program will create a multi-step path to an energy efficient home for low-income families. The steps will include home repair, weatherization, and an HVAC upgrade to a high efficiency heat pump.

Budget:

- Repairs: If repairs are fully covered, home repair is expected to cost between $5,000 and $10,000 per home. However, we have currently written a grant for $3.5 million to seed a deferred loan program that should recover some of the money invested.
- Weatherization: Weatherization needs are expected to be met primarily through free programs from Georgia Power or the federal government
- HVAC: Heat pumps cost $7,000 to $10,000 for homes with a single HVAC unit. However, we hope to partner with a company that offers an inclusive lease program for deployment. This would limit City expenditures to the company's program fees and supplemental incentives for more complicated projects, like gas to electric conversions.

Timeline:

- Near Term: Pilot a pre-weatherization home repair program in preparation for scale up; encourage Georgia Power to maintain income-qualified energy efficiency programs and bring back heat pump incentives.
- Mid Term: Work with local contractors and program operators to develop a heat pump deployment program.

7 Support energy efficiency projects at public and Section 8 housing ($$$)

While public housing and Section 8 housing programs often account for the cost of utilities, the given allowances or rent deductions aren't always enough to cover the full cost of utilities. Energy efficiency can increase the likelihood that the allowances cover the full cost of utilities without sacrificing comfort.

Budget:

- Depends on scale and scope of services, as well as eligibility for free programs. Georgia Power has already done some work with the Housing Authority of Savannah through its income-qualified energy efficiency program. However, it is more difficult to reach Section 8 tenants through this program because they generally need landlord permission.
- Deeper upgrades, like appliance upgrades or heat pump installation, would likely require supplemental funds. However, some cities (e.g. Atlanta) have developed public-private partnership models that leverage private capital, and utility incentives may also be able to defray some of the cost.

Timeline:

- Near Term: Work with Housing Authority and Georgia Power to identify gaps in existing offerings
- Mid Term: As new offerings are introduced for Strategy 6, identify and address any challenges in using those programs for public or Section 8 Housing.

8 Develop a revolving loan fund for energy efficiency ($$$)

For low-income and credit-challenged households, private capital is generally expensive or out of reach, even if expected energy savings provide cash flow for repayment. Moreover, many loan products don't offer a term long enough to keep monthly payments less than monthly savings, which is a must for income-limited households. A revolving loan fund would address these challenges by providing a mission-driven alternative to risk-averse private capital.

Budget:

- Seed funding of $3 million - $5 million would be recommended.
- Administrative funds would also be needed to build and tailor staff capacity for loan origination and servicing.

Timeline:

- Near Term: Identify source of funding; meet with Finance and Housing Departments to see what loan orgination and loan servicing capacity already exists within City government; meet with City attorney to understand legal requirements.
- Mid Term: Calculate administrative costs and set interest rates to cover those costs; develop program guidelines--who is eligible, maximum loan amount, acceptable project types, etc.

9 Develop energy efficiency offerings for all income levels ($$$)

Modeling has shown that up to 50% of our energy needs can be met through energy efficiency. However, to achieve this, we must provide easy, cost-effective programs for all income levels and customer classes.

Budget:

- Depends greatly on income level and customer class.
- For commercial customers, we hope to outsource much of the responsibility to a private sector partner or partners.
- For residential customers, potential budget items may include loan loss reserves to unlock private capital; startup/ongoing program fees for public-private partnerships; and funding for incentives to support more expensive projects, like gas to electric conversions.

Timeline:

- Near Term: Establish relationships with local banks; intervene in PSC proceedings to advocate for energy efficiency programs and rebates; issue an RFP for energy efficiency program managers; organize a Solarize-type campaign for weatherization service and/or heat pumps.

10 Use energy savings performance contracts (ESPCs) to make City buildings more efficient ($$$)

Though City operations represent a small percentage of City-wide energy use, it is important for the City to lead by example by improving the efficiency of its buildings. Additionally, improving the efficiency of City-owned buildings will provide an opportunity for the City to demonstrate the money-saving potential of energy efficiency.

Budget:

- ESPCs themselves are generally cash flow positive.
- However, it is in the CIty's best interest to hire a consultant to oversee the selection of an Energy Services Company (ESCO) and to manage and oversee that selected company's work. This consultant's fee will generally amount to a percentage of the final contract value.

Timeline:

- Near Term: Issue an RFQ for an owner's representative (completed); work with the selected owner's representative to develop an RFP for an ESCO; complete ESPC for first round of buildings.
- Mid Term: Repeat process for an additional selection of buildings; branch into more complicated facilities like water treatment plants.

11 Upgrade efficiency of municipal lighting ($$-$$$)

Efficient lighting provides one of the quickest paybacks of all energy efficiency upgrades.

Budget:

- Depends on the number and types of fixtures. LEDs are modestly more expensive upfront than compact fluorescent or halogen bulbs. However, they produce significant lifecycle savings.

Timeline:

- Near Term: Conversion is already underway. Plan is to complete conversion at natural end-of-life.

12 Transition to LED Streetlights & Traffic Signals ($-$$$)

Like indoor lighting, outdoor lighting can generate a quick return on investment when upgraded to LED. This includes street lights; traffic signals; and lighting at parks, stadiums, parking lots, and squares.

Budget:

- No budget impact expected for most streetlights and traffic signals. Georgia Power has already upgraded 100% of traffic signals and more than 99% of street lights while keeping subscription costs the same.
- For City owned lights at parks, stadiums, parking lots, and squares, there will be a modest cost premium upfront for LED. However, this will be offset by savings over time.

Timeline:

- Near Term: Continue to engage with Georgia Power to drive the upgrade of their lighting; continue to replace City-owned lights at their natural end of life.

13 Improve the efficiency of water and wastewater treatment ($$$ - $$$$)

Water and wastewater treatment are the most energy-intensive aspects of City operations. However, energy intensity can be reduced through equipment upgrades, process improvements, and waste reduction efforts like combined heat and power.

Budget:

- Improvement through an ESPC would likely limit City expenses to only consultant fees.
- However, work could also be funded through federal relief funds, grants, or existing capital budgets (e.g. replacement at end of life).

Timeline:

- Near Term: Consider water/wastewater treatment in site selection for ESPCs; explore how Covid relief funding and infrastructure funding can be used to improve efficiency of water treatment
- Mid-Term: Ensure that routine equipment replacements consider lifecycle cost, rather than upfront cost.

14 Establish a municipal efficient equipment procurement policy ($)

The 100% Savannah resolution states that the City will "Develop procedures for purchasing equipment, supplies, and services that include methods for minimizing the greenhouse gas emissions caused by producing and using these goods and services." This directive has two key applications:

1. The City should consider the efficiency of equipment upon purchase. One way to do this is to base purchasing decisions on the lifecycle cost of the equipment, rather than the upfront cost.
2. The City should use its purchasing power to create a local market for low-carbon materials, goods, and services.

Budget:

- Varies by item. At a high level, this policy may require higher expenditures upfront, but these should be offset by reduced operating costs.
- The second application may not result in lifetime savings. However, for low-carbon options to become mainstream, early movers must provide the market for these options to achieve economies of scale.

Timeline:

- Near Term: Pass an ordinance that establishes an efficient equipment procurement policy.
- Long Term: Consider an "embodied carbon" standard to create a market for low-carbon products.

15 Enforce, update, or strengthen building codes ($$$)

Building codes provide standards for both new construction and major renovations. These codes cover everything from insulation and electric panel amperage to lighting and HVAC efficiency.

To minimize the risk of "locking-in" inefficiencies for decades, the City should:

1. Increase enforcement for codes that are already on the books
2. Advocate for the state to adopt code updates as soon as they are released (generally every 3 years); and
3. Explore the possibility of adopting a code that is stronger than the state code.

Budget:

- Greater enforcement will require greater staff capacity, as well as training to ensure staff understands code requirements.
- More frequent updates will carry some administrative burden and require more frequent staff trainings.
- A stronger build code would likely involve significant administrative and legal costs, as state law requires cities to demonstrate a compelling reason for seeking a stronger code.

Timeline:

- Near Term: Provide funding to increase staff capacity for building inspections and code enforcement; engage a professional lobbyist to advocate for adoption of code revisions as they become available.
- Long Term: Develop case for having a separate, stronger building code.

16 Develop sustainable building policies for commercial new construction and major renovations ($)

While increased enforcement of building codes would be relatively simple, receiving state approval to adopt a stretch code would be a heavy lift. An alternative path to the same result would be to establish sustainable building policies that require buildings to achieve certain certifications (e.g. LEED) or keep energy or greenhouse gas intensities below certain thresholds.

Budget:

- Developing and enforcing an ordinance like this will not be easy. If the City moves in this direction, it will need to invest time and money in policy development, staffing increases, and staff training.

Timeline:

- Near Term: Explore similar policies in other cities; understand any legal barriers that may be in place; seek expert input on what is achieavable, what is cost-effective, and what is enforcable; establish robust stakeholder process;
- Mid Term: Put policy in place.
- Long Term: Explore options for extending standards to existing buildings.

17 Develop a system to help people build back better after disasters and other loss events ($$$-$$$$)

Many of our strategies have focused on new construction and major renovations, since these situations provide a blank canvas for selecting efficient insulation and equipment. However, this opportunity is often overlooked in the context of disasters and loss events. When homes are lost to wind damage, flooding, or fire, they should be rebuilt with efficiency and resiliency in mind. Similarly, when equipment must be replaced after these events, or even after routine failure, our goal should be to guide citizens toward more efficient options.

Budget:

- Cost Difference Rebates - Insurance checks or federal relief funds will cover what was lost, but rarely allow for improvement. The City should offer incentives to cover the additional cost of efficient choices relative to inefficient ones. For example, if the cost difference between a 14 SEER and 16 SEER air conditioner is $1,500, the City should offer a $1,500 rebate. This saves the City money in the long-run because it reduces the amount of renewable energy that must be procured.

Timeline:

- Near Term: Meet with City departments and other relevant parties to discuss where this program might be housed; perform market research to understand additional costs; develop platform for program; identify outside funding sources
- Mid Term: Evaluate program; add or remove rebates as necessary

18 Pass an ordinance to require homes to disclose energy ratings upon sale ($)

When a customer shops for a new car, there will generally be a sign on the window with the estimated fuel economy under both city and highway conditions. These signs help buyers understand and compare the operating costs of different vehicles. We propose that the same disclosure be required for homes. Just like disclosing fuel economy helps customers understand the ongoing costs of owning a car, requiring homes to disclose energy ratings would help customers understand the ongoing costs of owning a home. This requirement will protect customers from price shocks and increase the value of efficient homes, creating an incentive for homeowners to invest in efficiency.

Budget:

- The cost of this proposal to the City would be minimal.

Timeline:

- Near Term: Explore similar policies in other Cities (underway); understand any legal barriers that may be in place; seek stakeholder feedback on implementation, exceptions, and penalties; put policy in place.
- Mid Term: If successful consider extending disclosure requirement to rentals.

19 Develop or attract pilot and applied research projects ($$$-$$$$)

Though Savannah can achieve its goal by purchasing renewable energy credits (RECs), the climate benefit would be much greater if Savannah found a way to actually use renewable energy every hour of the year. For that to happen, Savannah will need to think beyond solar and batteries to develop onshore and offshore wind; hydroelectric, tidal, and wave energy; geothermal energy; and long duration storage.

Budget:

- The cost of deploying established technologies is variable. Options like geothermal district heating and wastewater heat recovery would likely pay for themselves over time through community subscriptions or energy savings. Other technologies, like low-impact hydro and floating solar, would likely have a net cost without state policy change.
- The budget impact of emerging technologies will also vary. In some cases, companies will self-finance demonstration projects to prove their technology and base location decisions on other factors. In other cases, companies will base location decisions on incentives from the City.

Timeline:

- Near Term: Evaluate advanced technologies that are already available, like low-impact hydro, floating solar, geothermal district heating, and wastewater heat recovery; identify any barriers or pre-requisites.
- Mid Term: Issue an RFI for technologies that are not currently available in this area, like offshore wind, advanced onshore wind, wave energy, tidal energy, and long-duration storage; consider incentive packages to attract demonstration projects of these types.
- Long Term: Provide incentives to grow demonstration projects into larger industries; develop a coalition of leaders in academia and industry to attract industrial and transportation decarbonization pilots.

20 Support renewable energy projects at public or Section 8 housing ($$$)

While public housing and Section 8 housing programs often account for the cost of utilities, the given allowances or rent deductions aren't always enough to cover the full cost of utilities. Solar and other renewables can increase the likelihood that the allowances cover the full cost of utilities without sacrificing comfort.

Budget:

- Depends on type of housing (single-family vs multi-family), the building owner (the Housing Authority vs private landlord), housing condition, and building energy use, among other factors.
- Possible expenses include technology to enable multi-family solar; loan loss reserves to unlock private capital; and grants for pre-requisite repairs, like roof replacements.

Timeline:

- Near Term: Work with Housing Authority to identify and address barriers to renewable energy for public housing.
- Mid Term: Work with Housing Authority and other partners to educate and incentivize landlords to add renewable energy to Section 8 housing.

21 Develop large renewable energy projects with 100% renewable partners ($$-$$$$)

While rooftop solar is a good option for reducing the amount of energy drawn from the grid, studies have shown that the most cost-effective path to decarbonization includes a mix of small and utility-scale solar. While Savannah is not prepared to build a utility scale system itself, there are three key options for doing so with 100% renewable partners:

1. Build a Qualifying Facility (QF) as defined by the Public Utilties Regulatory Policies Act (PURPA). This law requires utilities to purchase the output from local renewable energy facilities of < 80 MW.
2. Solicit unbundled RECs. Rather than build a QF, issue an RFP for unbunbled RECs from a new solar energy facility in Georgia.
3. Virtual Power Purchase Agreement (VPPA). Only available in organized markets, Virtual Power Purchase agreements are financial instruments that allow buyers to hedge against increasing energy prices. They also entitle buyers to RECs.

Budget:

- Depends on approach. Building a PURPA QF would have an upfront cost that would be recouped over time, an unbundled REC solicitation would be an ongoing cost, and the budget impact of a VPPA would change with market conditions.

Timeline:

- Near Term: Continue to engage with 100% renewable partners
- Mid Term: Hire a consultant to identify most affordable path to achieving shared goals and assist with contract development and negotiation.

22 Work with Community Development Financial Institutitons (CDFIs) to develop inclusive renewable energy loans ($-$$$)

As discussed in Strategy 8, private capital is often expensive or completely out of reach for low-income and credit-challenged households, even if energy savings provide cash flow for repayment. City support, in the form of loan loss reserves or interest rate buydowns, could reduce liability for mission-driven CDFIs, making affordable capital available to income-limited and credit-challenged families without the need for a City-administered loan fund.

Budget:

- Depends on scale and approach. Loan loss reserves can range from 5% of total lending to 75%, depending on the target market, the desired loan term, and the interest rate. Interest rate buydowns are similarly variable.

Timeline:

- Near Term: Establish relationships with local banks; explore options for local product offerings. Local banks can develop products of their own or partner with larger national and regional banks to offer their products.

23 Power City operations with solar ($$-$$$$)

As with energy efficiency, it is important for the City to lead by example on renewable energy. City-led solar procurement presents an opportunity to reduce operating expenses, make immediate progress on 100% Savannah goals, and develop a local solar workforce.

Budget:

- Depends on approach. If the City goes solar through a Solar Energy Procurement Agreement (SEPA), there is an opportunity for immediate savings.
- If the City pursues a grant to install solar, the system will likely have to be City-owned. In this case, the CIty would need to pay for the balance of the cost as a capital expense, or an ongoing expense if the system is financed.
- Alternatively, the City could use bond financing to construct and own a system outright.

Timeline:

- Near Term: Issue an RFP to put solar on City buildings through SEPAs (complete); monitor grant opportunities from the Georgia Environmental Finance Authority (GEFA), the Department of Energy (DOE), and others; advocate at PSC for policy changes that increase flexibility for solar siting (e.g. restore monthly netting)
- Mid Term: Prepare for a second RFP by replacing roofs as necessary.
- Long Term: Consider cost-efficacy of using bond financing to construct a large (~10 MW) solar array

24 Develop local micro-grids for critical infrastructure ($$-$$$$)

For now, most critical infrastructure is supported by a backup generator, if it has backup power at all. These generators are notoriously polluting and are also prone to failure if not carefully maintained. As prices come down and battery durations increase, solar + storage will become a more competitive option for resiliency.

Budget:

- Depends on approach. Storage is not currently cost-effective for most applications without subsidy. However, for those applications that are cost-effective, such as demand charge management, it may be possible to install solar + storage for little to no upfront cost through a SEPA or low cost loan.
- For less cost-effective applications, like backup power, grant funds may make projects pencil that wouldn't otherwise. GEFA regularly offers opportunities for funding solar + storage projects, and FEMA funding can be used for resilience projects as well.

Timeline:

- Near Term: Identify sites that are strong candidates for solar + storage. Strong candidates include sites that face high demand charges and small community sites that could serve as resilience hubs; seek grants for technical assistance for developing site plans.
- Mid Term: Seek funding to pilot a microgrid at one of the sites.
- Long Term: Replace existing generators with solar + storage at end-of-life.

25 Develop a City revolving loan fund for renewables ($$$)

Like Strategy 8, this strategy proposes to increase access to capital for low-income and credit-challenged families, while also offering better terms. The only difference is that this strategy focuses on renewable energy, which can include renewable heating technologies like geothermal heat pumps, while Strategy 8 focuses on energy efficiency.

Budget:

- See strategy 8.

Timeline:

- See strategy 8

26 Financially support renewable energy projects in Savannah ($$-$$$$)

As described in the "How to Measure Progress" section, Savannah will need to acquire renewable energy credits (RECs) to meet its 100% renewable goals. This presents an opportunity to support renewable energy development in the community, particularly for low- and moderate-income families, through REC purchases.

Budget:

- Depends on timeframe and generosity of REC purchase. In voluntary REC markets like Georgia's, REC prices generally converge around $1.50/MWh, though they can reach as high as $7/MWh with strong demand from corporate buyers.
- One potential policy would be to offer low-income customers a $1,000 rebate for a lifetime REC transfer and all other residential customers a $500 rebate. An upfront payment like this would allow recipients who are financing their systems to save on interest.
- Alternatively, the City could pay by the REC, with low-income recipients receiving twice as much per REC as standard recipients and moderate-income recipients receiving one and a half times as much per REC as standard recipients.

Timeline:

- Near Term: Pilot a REC purchase model as part of the next Solarize campaign; monetize RECs until they are needed to support solar access initiatives.
- Mid Term: Scale REC purchase model to be a standing program.

27 Explore dual-purpose solar projects, such as agrivoltaics, parking lot canopies, and playground canopies ($-$$)

Many citizens are unfamiliar with solar energy and how it can benefit them. While we plan to provide education to address this issue, we also feel it is important to develop visible solar projects that provide tangible benefits to the community. These projects could include solar-canopies over playgrounds or parking lots, which would provide much-needed shade in the summer; accessory charging for cell phones and other devices; or agrivoltaics, which would combine solar with agriculture and protect plants from scorching.

Budget:

- Depends on location. If the solar is at a site with high daytime energy demand, the project may pay for itself over time. However, if the site in question has little electric load, the project may come at a net cost, unless state solar policies change.

Timeline:

- Near Term: Identify potential sites for dual-use projects.
- Mid Term: Explore philanthropic funding sources for these projects.

28 Organize community bulk purchasing programs for solar and storage ($-$$)

While the cost of solar and storage has declined significantly, these technologies are still financially out of reach for many families. Community bulk purchasing programs like Solarize campaigns can reduce costs by aggregating demand to negotiate a lower price.

Budget:

- Low- to no-cost to issue an RFP and select an installer.
- Funding to compensate community groups for outreach would increase success.
- Additionally, grants or inclusive financing programs may be necessary to ensure equal access for low- and moderate-income (LMI) families.

Timeline:

- Near Term: Pilot inclusive financing models that increase access for LMI customers (underway); organize another Solarize campaign within two years.
- Mid Term: If successful, seek funding to scale inclusive financing program up to a permanent offering.

29 Form a coalition of local employers and businesses to advocate for renewable energy policy changes at the state level ($)

Businesses have a tremendous amount of influence in state politics. If businesses join with cities to advocate for policy change, we are more likely to get some traction on issues like "Scrap the Cap."

Budget:

- Cost should be relatively low. Primary expense will be outreach funding to educate local businesses about policies that should be changed.

Timeline:

- Near Term: Engage with businesses through small business town halls and other community events (underway); share information about existing policies and how they encourage or discourage renewable energy; encourage businesses to submit public comments during relevant Public Service Commission proceedings.

30 Advocate for federal policy changes and increased funding ($)

Though states, cities, and businesses have continued to work hard to reduce emissions, federal leadership will be required to achieve reductions that are consistent with the goal to limit warming to 1.5 degrees C. To supplement the lobbyist described in Strategy 5, we intend to meet at least twice a year with our Senators and Representative to advocate for policies like direct pay for clean energy tax credits; a strong clean energy standard; and increased funding for programs like the Weatherization Assistance Program.

Budget:

- Low to now cost. Expenses may include light travel and outreach events (e.g. lunch and learns, morning coffees, etc.) with businesses

Timeline:

- Near Term: Identify contacts in Senators' offices; identify contact in Representative's office; schedule introductory meetings with each; develop coalition of business leaders and community members to join in these meetings (see Strategy 43).

31 Participate in PSC proceedings to support renewable energy development ($)

Though Georgia ranks in the top 10 states for solar deployment, the state still receives the majority of its energy from fossil fuels. Moreover, Georgia has prioritized large utility-scale systems over smaller systems, even though multiple studies show that a mix of small- and large-scale solar will be cheaper in the long-run. Both individually and in partnership with other 100% cities, Savannah intends to intervene in PSC proceedings to advocate for increased support for local solar and an even quicker transition to renewable energy.

Budget:

- Depends on level of engagement. Savannah could intervene at minimal cost, or it could join with other parties to hire expert witnesses or commission reports to support its position.

Timeline:

- Near Term: Intervene in 2022 Integrated Resource Planning Cycle; intervene in other relevant proceedings, like rate cases.

32 Make it easier for the community to purchase and use EVs ($$)

As a smaller, sprawling City, Savannah is very car-dependent. Though we plan to improve alternatives like walking, biking, and public transit, cars will remain an essential piece of the transportation landscape for the forseeable future. Thus, we intend to make it easier for the community to own and use EVs through the following initiatives:

- Buildout of public charging infrastructure in parking garages (underway), on streetlights and power poles, and at popular destinations.
- Community bulk purchase programs to negotiate lower prices.
- Dealer incentive programs to increase access to EVs for test drives.
- Community incentive programs, such as preferential or free parking.

Budget:

- The cost of EV charging infrastructure varies depending on whether the charger is networked or not and whether the charger is a level 1, level 2, or DC fast charger.
- Dealer incentive programs could be in-kind contributions, like advertising which dealerships have EVs on-site or financial, like offering salespeople $500 for every EV they sell.
- Community incentive programs related to parking would not require money to be spent but would modestly reduce revenue.

Timeline:

- Near Term: Build out charging infrastructure.
- Mid Term: Organize community bulk purchase program and incentive programs.

33 Improve and expand pedestrian transportation options ($$$$)

For residents who can't afford a car, pedestrian transportation options like sidewalks and bike lanes are crucial for getting to work, getting groceries, and visiting loved ones. These modes of transportation are also beneficial for human health and the environment.

Improving and expanding pedestrian transit could take many forms, including:

- Allocating additional funding for mowing and maintainence of trails and sidewalks
- Enforcing fines for vehicles that park in bike lanes or on sidewalks
- Implementing Complete Streets per City ordinance as right-of-way and street widths allow
- Expanding the protected pedestrian transit network (bikes, trails, sidewalks) where possible
- Placing bike racks at popular locations like grocery stores and busier bus stops to facilitate use of the transportation network

Budget:

- Off-road Trails - ~$2 million per mile
- Sidewalks - ~$250,000 per mile
- Bike Lanes - $150,000 - $500,000 per mile (unprotected vs fully protected)

Timeline:

- Near Term: Completion of Truman Trail Phase 2B; pre-design and design work for Tide to Town
- Mid Term: Continued design and buildout of Tide to Town and other protected infrastructure as conditions allow.

34 Improve and expand public transit options ($-$$$)

Compared to individual vehicles, public transit is environmentally preferable because it can move a large number of people with less fuel. However, these benefits cannot be realized if public transit is perceived to be slow or difficult to use.

Budget:

- City costs are hard to determine since most public transit is operated by the Chatham Area Transit Authority.

Timeline:

- Near Term: Set up regular meetings with CAT to discuss improvement opportunities and potential collaboration
- Mid Term: Explore pilot projects and funding opportunities for improving service

35 Electrify City vehicles ($-$$$)

As with energy efficiency and solar, the City has an important role to play in leading the way on electric vehicles (EVs). If trusted local leaders drive electric vehicles, residents may feel more comfortable driving EVs themselves.

Budget:

- Though EVs continue to be more expensive than internal combustion engine (ICE) vehicles upfront, these costs are offset through lifetime savings on maintenance and fuel.

Timeline:

- Near Term: Continue to replace light duty ICE vehicles with EVs at their natural ends of life; encourage staff to use EVs to increase familiarity, especially for short trips; transition high-use vehicles like code-enforcement vehicles to EVs.
- Mid Term: Pilot heavy duty electric vehicles like garbage, recycling, and bucket trucks; pilot electric vehicles for intercept vehicles.
- Long Term: Completely transition heavy duty fleet to EVs.

36 Electrify community transit options ($-$$$)

Though public transit provides climate benefits in any form, the benefit is far greater when that transit is electric. We plan to work with the Chatham Area Transit Authority (CAT) to encourage the transition to electric. We also plan to explore ways to shift the Downtowner program and other rideshares toward EVs.

Budget:

- As with Strategy 34, City costs for electrifying public transit are hard to determine since most public transit is operated by the Chatham Area Transit Authority.
- Similarly, the cost of accelerating the electrification of rideshare will depend on the City's investment. City involvement could range from low cost educational initiatives about EVs to targeted financial incentives.

Timeline:

- Near Term: Set up regular meetings with CAT to discuss electrification opportunities and potential collaboration
- Mid- to Long Term: Outreach to rideshare drivers to encourage electrification

37 Introduce new mobility options ($-$$$$)

To increase familiarity with electrification, it would be beneficial to introduce new electric mobility options. These could include:

- An electric vehicle share program
- An electric bike or scooter share program

Moreover, as we strive to reduce use of personal vehicles, it may be helpful to add new mobility options, such as:

- City-owned trolleys
- A tram between the airport and downtown
- New ferry options, such as between Savannah and Tybee Island and between Savannah and Hilton Head Island

Budget:

- One EV share company estimates costs at $1,250 per car per month, with some of this cost being offset by user fees.

Timeline:

- Near Term: Pilot a round-trip EV share program at a community center; solicit cost estimates and develop rules for bike/scooter share programs.
- Mid Term: Explore funding opportunities for the other mobility options mentioned above.

38 Incorporate "green" skills training into existing workforce training programs ($-$$)

Community organizations across the City already offer workforce training programs for youth, veterans, and returning citizens. The City hopes to work with these community partners to train citizens for the energy transition. Examples include training participants to install solar, perform energy audits, drive commercial vehicles, or pour sidewalks.

Budget:

- Some community partners may be prepared to develop new curricula with existing budgets. Others will need financial assistance to adjust their programs or pay for industry certification exams.

Timeline:

- Near Term: Meet with organizations with existing workforce training programs to discuss fields that are expected to grow during the clean energy transition; identify areas where they will need support to train participants for these careers; partner with these organizations to identify funding opportunities.

39 Develop new workforce training programs ($-$$)

Some of the jobs that will increase in importance during the clean energy transition lack existing local training programs. These underrepresented jobs include solar installers and geothermal technicians.

Budget:

- Depends on City's proposed level of support. The City could provide resources to help trainees access existing financial resources like Pell grants. The City could also support the expansion of existing workforce training programs to include new skills (underway for solar).

Timeline:

- Near Term: Identify jobs that have an immediate or near-term need for trained workers; identify workforce training resources that are available for free through industry network memberships.

40 Promote existing local green businesses ($)

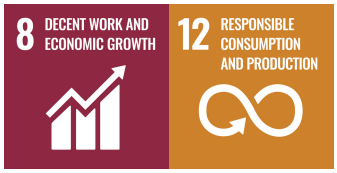
Many businesses in Savannah are already striving for sustainability, whether through a switch to electronic documentation or reduced use of plastic straws. We hope to tap into that existing commitment to sustainability to drive investment in energy efficiency, renewable energy, and electric vehicles. Specifically, we hope to incentivize this behavior through a new green procurement process that shows preference for businesses that have improved the sustainability of their operations or offer an envrionmentally preferable product or service.

Budget:

- Depends. This new green procurement process will show preference to businesses that are leading on sustainability initiatives. For example, if the City is selecting a restaurant to cater an event, preference will be shown for restaurants that have "greened" their operations or offer environmentally friendly packaging. This may result in a modest cost increase, or costs may stay the same.

Timeline:

- Near Term: Meet with purchasing department and City attorney to understand how a green procurement policy would work and what would and would not be allowed.
- Mid Term: Develop a process for registering as a "green" supplier; develop a scale to differentiate suppliers according to progress.



41 Support creation or expansion of green businesses ($-$$)

While workforce training will be a great first step, our ultimate goal is to build local capacity and true wealth through the creation or expansion of small businesses.

Budget:

- Capital Support - While financial resources for business creation already exist, there may be opportunities for enhancing these resources. One example would be providing loan loss reserves to de-risk private capital for business creation.
- Transferrable skills training - Some skills can be transferred to other business areas. For example, those who own businesses for roofing or electrical work could easily learn how to add solar installation to their scope of services.
- Outreach - The City's Economic Development Office already offers free courses to help residents start businesses. However, these may not be well known in certain communities.

Timeline:

- Near Term: Offer entrepreneurship trainings for existing businesses, particularly LDBE businesses
- Mid Term: Follow up with workforce training graduates who have a few years' experience about starting their own businesses (e.g. connect them to resources in the Economic Development Office); Work with the Small Business Assistance Corporation (SBAC) to offer more affordable start-up capital to aspiring green business owners.

42 Develop and Implement an Equitable Community Communication Plan ($$)

Durable climate action will not be possible without the consent and support of the community. We plan to seek this through several forms of ongoing engagement, including:

- Social media campaigns
- Traditional media—TV, radio, newspaper
- Outdoor advertising at bus stops and parks and on benches
- On-the-ground outreach through neighborhood associations, faith communities, and other community groups
- Taskforces and working groups
- Move in materials
- Water department communications
- Community events like block parties

Budget:

- Some forms of outreach will be low cost or even free (e.g. social media, speaking at neighborhood meetings). Other forms, like TV or newspaper advertising or community events, will carry a cost.

Timeline:

- Near Term: Host community events in energy burdened areas to promote free or low-cost home repair and weatherization programs; develop new working groups to address policy issues and generate innovative ideas; increase advertising for 100% Savannah through traditional and outdoor advertising.

43 Develop Business Outreach Strategy for 100% Savannah ($)

The support of the business community will be crucial to the success of 100% Savannah. First, businesses represent a large percentage of energy use, so they can help our goals by reducing their energy use. Second, businesses have a large amount of political and cultural influence, which means they can drive policy and behavioral change that government officials cannot. Finally, businesses are active participants in the community and represent a potential source for funding, in-kind contributions (whether meeting spaces, legal advice, or food), and volunteer hours.

Budget:

- Primary costs would relate to educational and outreach events (e.g lunch and learn or happy hour).

Timeline:

- Near Term: Host educational events for businesses about how they can green their operations and support policy changes that promote renewable energy and energy efficiency; develop a formal coalition for policy advocacy. Proposed actions include participating in Savannah-Chatham Day at the state capitol; public comment in relevant PSC proceedings; and annual meetings with members of the GA delegation.

44 Develop strategy for working with other areas of City government ($)

While the Sustainability Office will lead the way on 100% Savannah, the clean energy transition requires participation from every office in the City.

Budget:

- Most of these actions have no direct cost. However, larger cross-departmental projects may require more staff capacity.

Timeline:

- Near Term: Hold 15-30 minute meetings between Sustainability Office and each department head to discuss overlapping initiatives and potential partnerships; establish a directory of departmental points of contact; meet with City Manager and Mayor to ensure that federal relief and infrastructure funding is distributed with 100% Savannah in mind.
- Mid Term: Revitalize Thrive Green Team for ongoing idea generation, problem solving, and cross-departmental projects and partnerships.

45 Expand and levarage partnerships with other governments and NGOs ($)

Savannah is not the first City to set a 100% goal and it will not be the last. That is why we will work closely with a variety of partners to share best practices, develop joint projects, and advocate for policy changes.

Current and potential partners include:

- Regional, national and international networks like the Southeast Sustainability Directors' Network, Climate Mayors, and ICLEI.
- Other 100% Cities in Georgia and across the Southeast
- Community groups, NGOs, and faith communities
- Local governments like Chatham County, Tybee Island, Thunderbolt, Port Wentworth, and Pooler.

Though Savannah's participation to this point has been focused on learning, we hope to eventually become a leader for other cities.

Budget:

- Membership Fees and Conference Travel - While some of the networks above are free, many require dues to support professional staff to assist with lobbying, grant support, and resource development.
- Community Support Payments - Some community outreach will be more effective if it comes from trusted community partners. For this partnership to scale, some compensation will be required.
- Shared Costs - One benefit to the networks above is that the cost of consultants, legal advice, or lobbying efforts can be shared.

Timeline:

- Near Term: Identify areas where community outreach will be most effective; formalize and routinize relationships with nearby local governments.