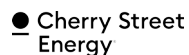




# DEKALB CLEAN ENERGY TRANSPORTATION TRANSITION PLAN



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# TEAM DESCRIPTIONS

## Southface

### **Southface Institute**

Founded in 1978, Southface has long been known for its role as a trusted convener, especially in industry engagement in sustainability at the intersection of the built environment. Southface's deep technical expertise and practitioner experience with high-performance green buildings in both residential and commercial new construction, as well as in operations and maintenance of existing buildings, makes us well-qualified for this work. We have a proven track record in clean energy and sustainability planning across Southface. Our research and advocacy efforts with state housing finance agencies, including but not limited to the Georgia Department of Community Affairs and the Alabama Department of Economic and Community Affairs, have provided us with unique insight into the impact of state energy and construction codes on local green building as well as the hard and soft costs of high-performance green building in relation to multifamily affordable housing in specific – a familiar and critically important topic to us. Further, Southface provides technical consulting services across a variety of certification programs, including EarthCraft, ENERGY STAR®, Enterprise Green Communities, BIT Building, and LEED. This boots-on-the-ground experience positions us to learn from and influence the evolving marketplace dynamics in and around clean energy.



### **Energetics**

Energetics (a division of VSE Corporation), founded in 1979, is a full-service energy and management consulting firm that brings nationally recognized expertise in both climate vulnerability and resilience planning in transportation systems and critical infrastructure. Our staff includes experts in climate risk and resilience, greenhouse gas accounting, transportation systems, and critical infrastructure.



### **IB Environmental**

IB Environmental (ibE) is an LSBE founded five years ago. CEO and founder Stacey Berahzer has been in the utility affordability business since 2004. Most of her nationally recognized work has focused on water affordability; however, the company has assembled experts in energy, data, and GIS to tackle utility affordability and environmental protection more broadly. IB Environmental works with organizations to address equity issues for limited-income utility customers, improve watershed management, and encourage climate change mitigation by making green practices and jobs more economically viable.

## ● Cherry Street Energy®

### Cherry Street Energy

Cherry Street Energy is a next-generation renewable power company built to provide world-class solar programs to iconic companies, municipalities, and institutions without the upfront costs and complexities typically associated with procuring renewable energy infrastructure. We design, build, own, operate, maintain, and improve renewable power infrastructure. We have extensive experience helping our institutional customers understand their “behind the meter” solar potential, and in building those distributed generation portfolios for our customers including the City of Atlanta, Fulton County, Macon-Bibb County, and Emory University.



### Clean Cities Georgia

Clean Cities Georgia (CC-GA) is a 501(c)3 nonprofit organization promoting healthful air through the reduction of petroleum consumption in the transportation sector by advancing the use of alternative fuels and vehicles/equipment, idle reduction strategies and technologies, hybrid electric and electric vehicles, and fuel economy improvement. CC-GA was founded in 1993 as the first of nearly 100 U.S. Department of Energy (DOE) sponsored coalitions across the U.S. that help meet the objectives of improving air quality, developing regional economic opportunities, and reducing the use of petroleum fuels in transportation.

Southface, Energetics, IB Environmental, Cherry Street Energy, and Clean Cities Georgia served in different capacities on the Plan. The consultant team would like to thank all key partners who were essential in completing this project.

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### Key Partners

DeKalb County Board of Commissioners

DeKalb County's Planning and Sustainability Department

DeKalb County Super District 6 Office

Exchange Recreation Center

Hairston Crossing Library

Scott Candler Library

# EXECUTIVE SUMMARY

As a prosperous and growing community, DeKalb County takes its role seriously in reducing the impact of emissions related to its energy consumption. DeKalb recognizes that it must go beyond the minimum efforts called for by the Intergovernmental Panel on Climate Change in its very low greenhouse gas emissions scenario to help account for other communities' inability to act. As such, DeKalb County is planning to eliminate its government and county carbon emissions from electricity by 2035, with all remaining county uses, including transportation, eliminated by 2050.

This document, DeKalb's Clean Energy Transportation Transition Plan (Plan), is intended to guide DeKalb's energy transition and address the County's contributions to the climate crisis while improving living conditions and addressing equity issues. This Plan describes a path to a clean energy future while facing an aggressive goal and conditions outside DeKalb's control.

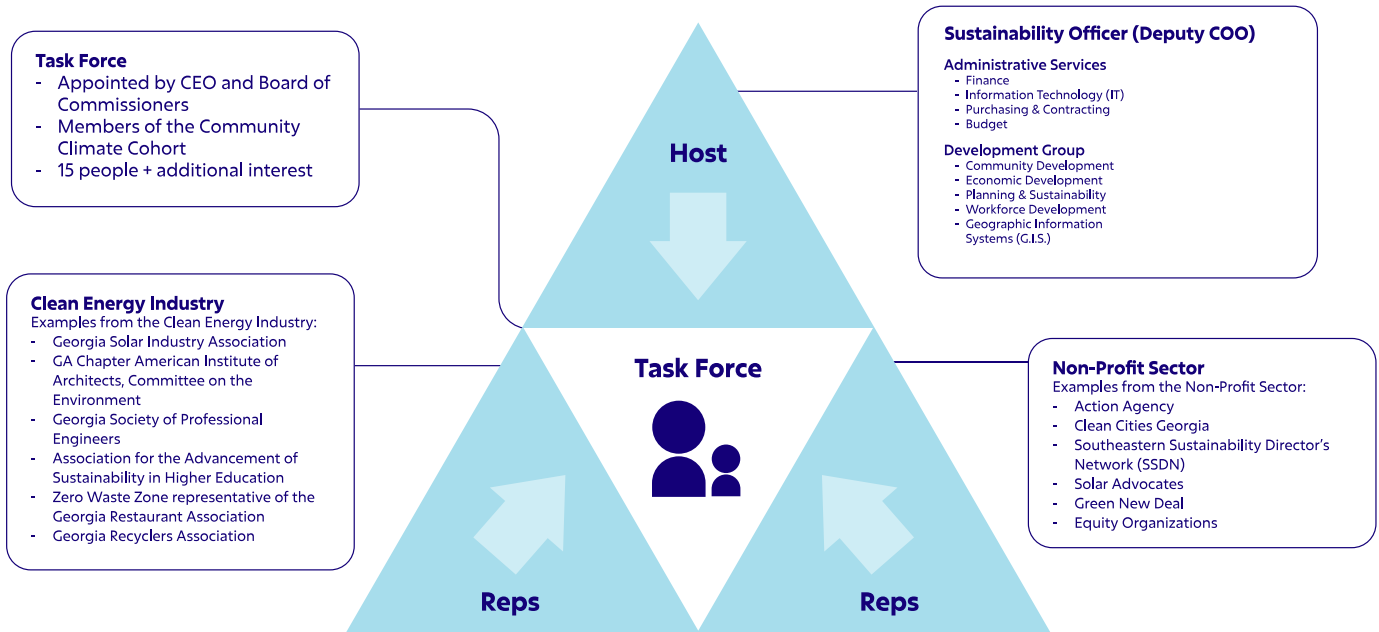
DeKalb's Clean Energy Transportation Transition Plan was developed with deep-level engagement from DeKalb County's residents through various forms of community engagement. Through a series of in-person community events focusing on sustainability myth-busting, weatherization improvements, energy bill analysis, and regulatory analysis, the residents of DeKalb County engaged at all levels of the Plan.

These events served as opportunities to educate community members about the Plan and other areas where DeKalb County is taking action.

Ascertained from the creation of the Plan, The consultant team identified five Pillars of Progress that serve as core values for DeKalb County. These pillars are the main drivers for change and should be top of mind when implementing the recommended deliverables from the Plan. The Pillars of Progress are listed below and are discussed in greater detail later in the Plan.

1. Invest in Community
2. Sustain Sustainability
3. Manage Energy
4. Lead by Example
5. Data, data, data

# THE PLAN AT A GLANCE



DeKalb's Clean Energy Transportation Transition Plan intends to serve as the initial roadmap for its journey away from fossil fuels. DeKalb County recognizes that a transition away from fossil fuels will ultimately impact its county residents in many ways. Prioritizing residents, Southface Institute, Energetics, IB Environmental, Cherry Street Energy, and Clean Cities Georgia helped provide analytical and community engagement expertise.

Community engagement played a critical role in the development of the Pillars of Progress. Not only did community engagement serve as an educational opportunity to learn about sustainability at all levels, but it was also an opportunity for the consultant team to learn the needs of the community.

DeKalb County has already made efforts to improve the lives of its residents through economic development, accessible transportation, and diversified housing, yet there is still much work to be done. A fundamental goal for the County is to address historical and current inequities while building toward a clean and renewable energy future. During the formulation of the Plan, the County and the consultant team landed on these five Pillars of Progress that serve as foundational pieces when executing the Plan.

Ascertained from the creation of the Plan, The consultant team identified five Pillars of Progress that serve as core values for DeKalb County through the newly proposed Sustainability Office. Central to progress on Clean Energy in peer municipalities are their Sustainability



Offices. Locating the Sustainability Office in DeKalb's unique government structure is key. Lessons on a Sustainability Office from other municipalities include:

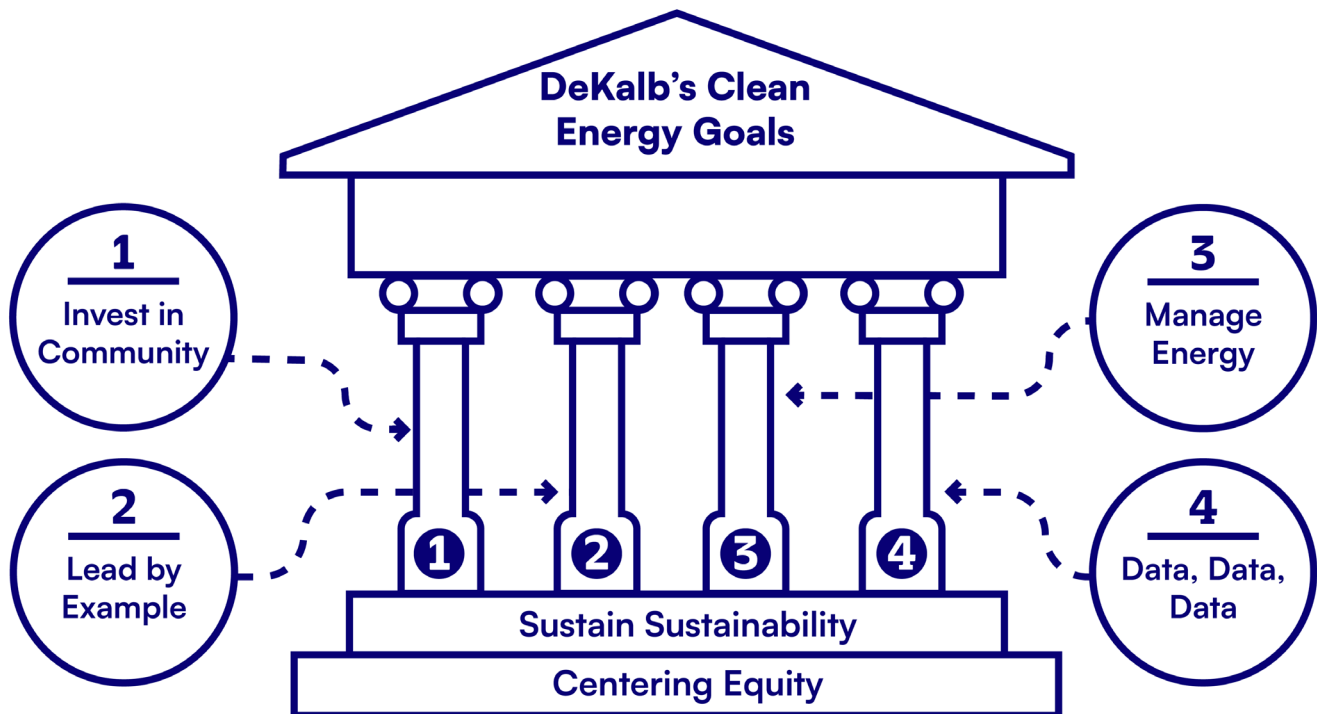
- Budgetary influence across the organization
- Close enough for elected executives to implement mandates
- Distant enough from elected executives to continue work at administration changes
- Sufficient staff for implementation
- Connection to the community for dissemination of programs

The pillars are the main drivers for change and provide structure when implementing the recommended deliverables from the Plan. The Pillars

of Progress are listed below and are discussed in greater detail later in the Plan.

To metaphorically represent these pillars in the DeKalb Community, the consultant team stylized the portico from DeKalb's historic neoclassical courthouse. Foundational elements are noted on the base steps. Key action items are represented on the columns holding up the lofty Clean Energy Goals in the pediment. This stylization serves as a mnemonic device for the Pillars and Plan.

1. Invest in Community
2. Sustain Sustainability
3. Manage Energy
4. Lead by Example
5. Data, data, data



# INTRODUCTION

DeKalb County, founded in 1822, became the 56th county in Georgia. DeKalb County was known for its thriving agriculture, dairy farming, and granite quarrying industries.<sup>1</sup> DeKalb's diverse community set the County up for success. Today, it is no coincidence that the City of Clarkston, located in DeKalb County, is the most diverse city per square mile in America.<sup>2</sup> Backed by its diverse history, today, DeKalb County's thriving communities, business districts, educational institutions, abundant green spaces, and more make DeKalb a county like no other.

That goal is at the core of the Plan and guides the County's efforts to combat the impacts of climate change. Community engagement revealed that many DeKalb residents are currently feeling the effects of climate change. The Southeast is at high risk of more frequent heatwaves and rising average temperatures. These increased temperatures are expected to exacerbate respiratory illnesses like asthma.<sup>3</sup> Children especially are negatively affected by asthma, which is associated with increased emergency room visits and missed school days. Like many urban areas, DeKalb is susceptible to the heat island effect. This phenomenon occurs when natural land cover is displaced by buildings, asphalt, and other impervious features, resulting in increased rates of heat absorption and retention. Over time, this effect results in increased reliance on air-conditioning and, therefore,

increased energy consumption, air pollution, and heat-related diseases, such as heat exhaustion and heat stroke, and mortality rates.<sup>4,5</sup> The need for more air-conditioning to keep people cool during summer months increases energy bills. Residents who do not have sufficient access to air conditioning may need access to cooling centers to avoid extreme illness or death.

Moreover, many households in DeKalb County experience an energy burden. Energy burden is quantified as the percentage of household income spent on electricity and/ or natural gas bills caused by excessive energy usage, inefficient appliances, and/or poor housing stock.<sup>6</sup> For families already facing financial struggles, higher energy bills that accompany increased temperatures can cause higher levels of stress and health issues.<sup>7</sup> The Intergovernmental Panel on Climate Change (IPCC) states in its latest report that current plans to address climate change are not enough to limit warming to 1.5°C above pre-industrial levels – a threshold scientists believe is necessary to avoid more catastrophic events.<sup>8</sup> DeKalb County has pledged to cut carbon emissions, serving as an example to other cities around the United States. Committing to a renewable energy transition will reduce climate emissions, improve public health, support jobs and economic development, and help the County achieve clean energy goals.

# A WAY FORWARD

On May 23rd, 2022, DeKalb County issued a Request For Proposal (RFP) for the Clean Energy Transportation Transition Plan.<sup>9</sup> This Plan is intended to guide DeKalb's energy transition and address the County's contributions to the climate crisis while improving living conditions. DeKalb will shift energy consumption away from fossil fuels in an economically sustainable and equitable way, ensuring that residents, business owners, worshippers, visitors, commuters, and all DeKalb County residents enjoy the benefits of this transition. DeKalb County has decided to break up the goal into targeted, intermediate timelines to tackle the ambitious goal of shifting toward 100 percent clean and renewable energy:

- One Hundred Percent (100%) renewable energy for County electricity use by 2035, including at least 50% renewable energy by 2025
- One Hundred Percent (100%) renewable energy for DeKalb County community-wide electricity supply by 2045
- One Hundred Percent (100%) renewable energy in all energy-use sectors, including transportation, by 2050



DEKALB COUNTY ISSUED A REQUEST FOR PROPOSAL (RFP) FOR THE CLEAN ENERGY TRANSPORTATION TRANSITION PLAN. THIS PLAN IS INTENDED TO GUIDE DEKALB'S ENERGY TRANSITION AND ADDRESS THE COUNTY'S CONTRIBUTIONS TO THE CLIMATE CRISIS WHILE IMPROVING LIVING CONDITIONS.

2035

100% RENEWABLE ENERGY FOR COUNTY ELECTRICITY USE BY 2035, INCLUDING AT LEAST 50% RENEWABLE ENERGY BY 2025

2045

100% RENEWABLE ENERGY FOR DEKALB COUNTY COMMUNITY-WIDE ELECTRICITY SUPPLY BY 2045

2050

100% RENEWABLE ENERGY IN ALL ENERGY-USE SECTORS, INCLUDING TRANSPORTATION BY 2050



# SUSTAINABILITY OFFICE PILLARS OF PROGRESS

## **Invest in Community**

The first pillar takes an equity perspective and focuses on helping residents reduce their energy burden. Structured from Task 5's community engagement events, this pillar was developed to empower residents at the individual, community, and state levels.

In order to empower DeKalb County residents, DeKalb needs to utilize its fiscal station to foster investments that will provide the upfront capital, which will be repaid through energy savings, to make energy investments affordable to the residents of DeKalb County.

Below are examples of community investment programs that DeKalb County can partake in to provide a more affordable energy improvement pathway for its residents:

- EV Charging
- Weatherization
- PACE
- PAYS™
- Community Solar
- Solarize
  - PPA
  - Purchases
- Energy Code Optimization

## **Sustain Sustainability**

In an effort to ensure that the Plan will continue to serve as a guide for

DeKalb County's energy transition, a new position has been proposed within the Chief Operating Officer's (COO) office. A Sustainability Officer (Deputy COO) will lead the implementation process of the Plan. The main role of the Sustainability Officer will be to future-proof the Plan so that real and effective energy investments can be made. Lessons from other municipalities have led to the recommendation of a full-time, well-funded position be established, with the right individual bridging the gap between the community and the county.

## **Manage Energy**

Also, an Energy Analyst position responsible for tracking and managing DeKalb County's energy use is proposed. Similarly, with experience with other municipalities, this position will more than pay for itself in cost savings. Additional savings can be reinvested, making the Energy Analyst a driver of clean energy investment.

## **Lead by Example**

DeKalb County's energy commitments to clean and renewable energy investments throughout government operations set an example for the continued investment for the County's residents. Furthermore, this becomes a resource to the community for small businesses and residents to make clean energy investments.

## **Data, Data, Data**

The Consultant team found that gathering, securing, tracking, managing, and using data is a massive need for DeKalb County.

In an effort to track data, the County can choose from the many data-

tracking tool options (ex. ICLEI and Energy Star Portfolio Manager) that will lead to more accurate and measurable data. Regardless of the tool, regular tracking will generate the insight needed for effective decisions.

Clean and renewable energy has the potential to lower energy bills, improve public health, and create more local, high-paying jobs. However, it is essential that this transition equitably benefits all members of the community. As DeKalb County embarks on transitioning its energy supply to clean and renewable energy, it is critical to understand the community's demographic makeup so that all voices are considered.





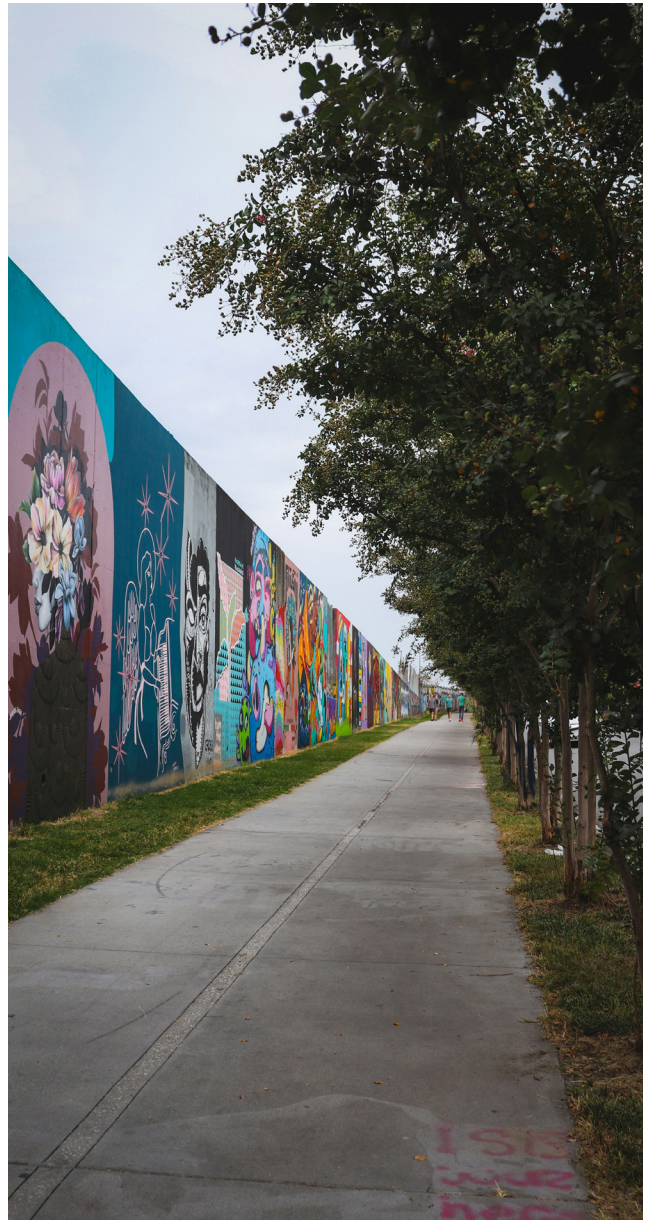
# DEKALB COUNTY TODAY

DeKalb County is home to roughly 765,000 diverse residents across different age groups, education levels, racial demographics, and professions. Approximately 47% of households in DeKalb are higher-income families with a college education.<sup>10</sup> However, stark disparities exist across the County.

Within DeKalb County, a number of households are experiencing an energy burden. Energy burden can be caused by various factors, including poor construction, outdated appliances, deteriorating housing, and/or excessive energy consumption.<sup>11</sup> One reason these households may have higher energy burdens is that they often face financial barriers to adopting more capital-intensive, energy-saving equipment and appliances. HVAC, water heating equipment, and appliances such as refrigerators and dryers are the most energy-intensive to use and costly to upgrade. High energy burdens are particularly problematic for renters, lower-income households, and communities of color who still suffer the effects of systemically racist housing policies.<sup>12,13</sup>

This Plan outlines how DeKalb County can move its energy supply to clean and renewable resources efficiently and equitably. Clean energy technologies, such as energy efficiency and rooftop solar, are more cost-effective than ever and improve the health of those living

in and around the community.<sup>14</sup> Investments in energy efficiency can support individuals living in inefficient housing by reducing their energy bills and can improve economic mobility by freeing up financial resources.<sup>15</sup> Understanding these technologies and their associated costs and benefits can guide the County on how to pay for energy upgrades. DeKalb County residents can benefit from clean energy investments made possible through programs, subsidies, and other governmental assistance programs.



# UTILITY LANDSCAPE

There are political limitations to the actions that DeKalb can feasibly take to transition to 100% clean and renewable energy. Understanding those limitations is a crucial component of this Plan. Stakeholders must be aware of what is in their control so they can make the most feasible, efficient, and impactful contributions to their community.

DeKalb residents have little choice in their energy providers. While a handful of natural gas utilities operate within the county, including Atlanta Gas Light, Gas South, and SCANA Energy, Georgia Power is the electric utility serving the majority of households and businesses operating in DeKalb. Georgia Power, a subsidiary of Southern Company, is a vertically integrated monopoly electric utility, meaning that the company owns and operates most of the power plants, power lines, and the related infrastructure that produce and deliver electricity to the DeKalb community. This type of market structure means that the vast majority of DeKalb residents and businesses do not have the option to buy retail electricity services from any other company.

The decisions of Georgia Power and its regulator, the Georgia Public Service Commission (PSC), heavily influence DeKalb's clean energy planning. The Company creates integrated resource plans (IRPs) over a three-year cycle, which are reviewed in hearings before the PSC.

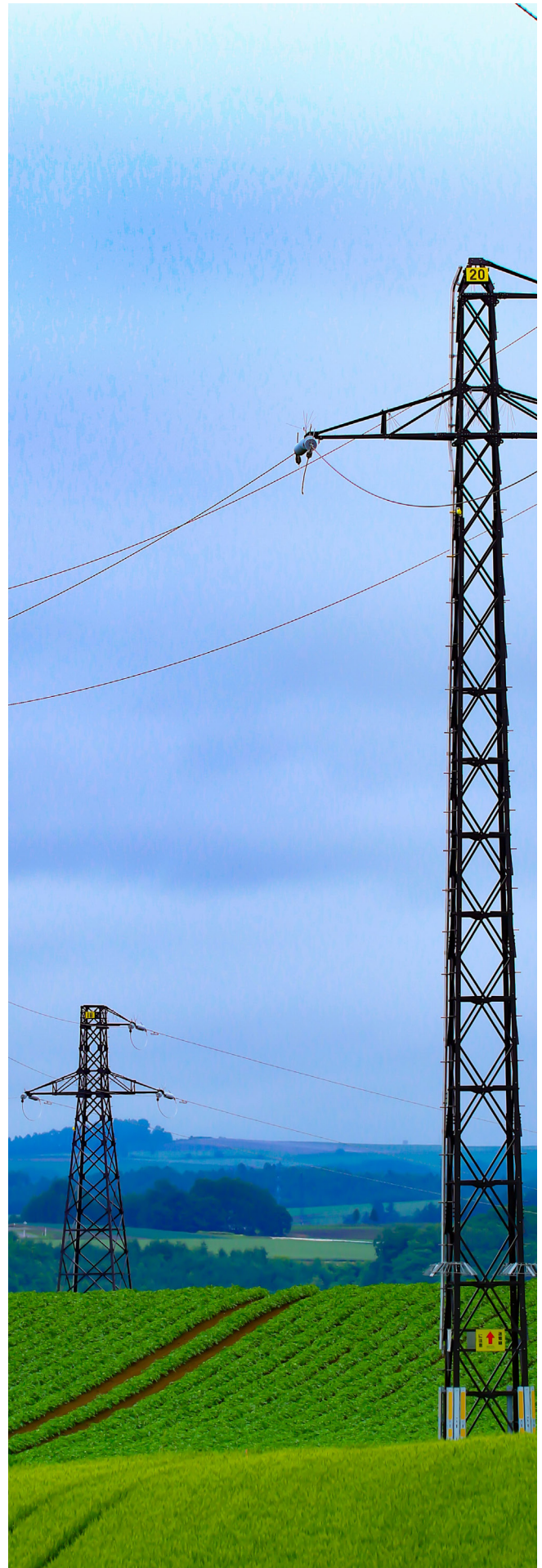
IRPs determine the mix of resources the utility uses to produce electricity. For example, the "mix of resources" may determine how much capacity from coal-fired power plants and renewable energy Georgia Power will need to meet their projected demand.

IRPs also influence how much the utility invests in energy efficiency programs and to which customers these programs are targeted. Rate cases are separate from the IRP process but set the price (cents per kilowatt hour) DeKalb residents and businesses pay for power. Rate structures discussed in these proceedings include the price rooftop solar owners are paid for energy exported back to the Company's grid. By choosing to supply the grid with fossil-fueled resources, Georgia Power and the PSC ultimately determine the carbon intensity of the electricity that DeKalb consumes. Georgia Power currently discourages customers from installing solar on their rooftops by charging additional fees for clean rooftop solar.<sup>16</sup> Fortunately, DeKalb is actively intervening in integrated resource planning through public input hearings and partnership opportunities and will continue to do so in the coming years. Formal interventions have included testifying against Georgia Power's decision to continue reliance on fossil fuels and advocating for improvements in the Company's energy efficiency programs. Informal intervention has included participating in public engagement sessions and submitting public comments to members of the PSC. These intervening activities help show Georgia Power staff and members of the PSC the wants and needs of the Company's customers



and can influence their future decisions. Ultimately, since the utility and its regulator will determine the greenhouse gas content of the County's electricity, DeKalb must work indirectly to decarbonize electricity. In addition to intervening with the PSC, DeKalb can reduce community electricity consumption by encouraging rooftop solar and energy efficiency.

The County's relationship with Georgia Power also includes the collection of municipal franchise fees, which could potentially be a financial tool in the County's transition to clean and renewable energy. Municipal franchise fees are a form of tax paid by customers across Georgia Power's service territory. These franchise fees are meant to cover the cost of Georgia Power's use of public space (also known as public "right-of-way") for energy infrastructure.<sup>17</sup> Franchise fees are collected across Georgia Power's service territory and distributed to Georgia cities and counties proportional to their population. This funding can be used to support municipal and community clean energy projects. In investing in its community and its energy transition, DeKalb is leading the way for a cleaner, less burdensome energy future.<sup>18</sup>



# RECOMMENDATIONS ON ADDRESSING DEKALB'S CLEAN ENERGY GOALS AND ENERGY-EFFICIENT METHODS TO MEET THE COUNTY'S ENERGY NEEDS

As DeKalb County looks to make climate-smart commitments, defining clear clean energy goals is crucial for effective implementation. Understanding the history and uniqueness of DeKalb, curating these goals must be tailored specifically to the County and the residents of DeKalb. Taking all of this into consideration, Southface and Energetics have completed an analysis of the County's Clean Energy Goals. The analysis serves as a realistic approach to assessing the attainability of these clean energy commitments. Further, this analysis combines the results of Task 1 and Task 2 as Energy Efficiency is a central approach to achieving the County Goals.

When building out clean energy pathways, energy efficiency improvements are often necessary. Usually, these upgrades are the most cost-competitive and yield the highest energy savings. For DeKalb County, conducting a thorough analysis of energy

efficiency improvements on a county-wide scale will lead to energy savings that will last decades. A true clean energy portfolio is not complete without energy efficiency improvements. Not only will these suggested improvements benefit the county infrastructure, but the residents of DeKalb County will also be able to make energy efficiency improvements. Thanks to the historic Inflation Reduction Act (IRA), these improvements can be made in much more affordable ways, making energy efficiency upgrades an equitable clean energy investment.<sup>19</sup> The below details clean energy and energy efficiency pathways for the County to consider. A summary of more detailed approaches can be found in the DeKalb Climate Action Scenarios, located in the appendix.

The priorities for meeting DeKalb County's Clean Energy Goals are summarized in three areas of focus: reducing energy consumption, creating and implementing a clean energy plan, and strengthening the energy transition with a suite of smaller – yet equally strong – supporting measures. Within each listed priority, a sample of key measures provides an example and direction to addressing that priority; however, the full suite of recommendations (as well as implementation considerations, cost estimates, possible barriers, etc.) can be found in the full scenarios.

By first reducing energy consumption, the County can invest in low-cost measures to improve efficiency and reduce energy costs while evaluating an implementation plan for renewable energy and power generation. Additionally, reducing energy consumption means that less renewable energy will need

to be generated/purchased.

Since there is no pathway to achieving the County's Clean Energy Goals without clean energy, the second priority should be renewable power generation. While implementation of renewable energy will happen later, the assessment of the County's onsite solar generation potential contained in this report should be expanded to include additional resources and investments budgeted to begin immediately for the best sites. Additionally, the County should solicit quotes for power purchase agreements (PPA) and associated infrastructure, then levy a cost/benefit analysis of onsite generation versus PPA (and what mix of the two works to meet the County's needs). Once an assessment is complete, the County should implement the transition as soon as possible.

Finally, a suite of supplementary measures is recommended to complete the County's transition. The individual actions will have a small impact when viewed independently, but together, they will greatly contribute to achieving the County's goals. Each action will be implemented on different timeframes and with different stakeholders.

### **PRIORITY I: REDUCE ENERGY CONSUMPTION**

Reducing the need for energy is a crucial first step. By reducing energy burdens and consumption, the County will quickly make progress toward its Clean Energy Goals. As outlined in the scenarios, reducing energy consumption involves improving building efficiency and electrification, increasing tree cover and greenery to reduce the Urban

Heat Island Effect and promote natural cooling, and reducing vehicle fuel consumption.

### **Key Measures:**

- Optimize airport operational efficiency, including aircraft cooling and turnaround time.
- Building Efficiency Improvements, Electrification, and efficiency standard certification for County buildings.
- Fleet efficiency optimization, downsizing, and conversion to EV.
- Increased tree canopy and green spaces

### **PRIORITY II: CREATE AND IMPLEMENT A RENEWABLE ENERGY PLAN**

DeKalb County's pathway to a clean energy transition involves alternative clean energy sourcing. This can include solar, wind, and offshore power, among others. Renewable electricity can be generated onsite, through the development of clean energy capabilities (such as solar panel installation), or purchased through power purchase agreements (PPAs). Per the scenarios, it is recommended that the County begin with PPAs while finding optimal locations for solar panel sites on County property.

### **Key Measures:**

- Create a renewable energy plan, considering possible sites and generation methods (i.e. solar, wind, hydroelectric, etc.), along with cost estimates, and an implementation timeline.
- Solicit quotes from providers for Power Purchase Agreements (PPA), including



considerations for projected population growth and future climate hazard impact on electricity demand.

### **PRIORITY III: SUPPLEMENTARY MEASURES**

A clean energy plan and efficiency optimization will achieve the majority of emissions reductions needed to meet DeKalb County's Clean Energy Goals. The remaining bulk of emissions reductions will come from a concerted effort to implement smaller supplementary measures, such as waste & water capital improvements, information campaigns, recycling technology improvements, and resilience measures. While each individual action's impact will be small, the total impact of all actions will pull DeKalb County across the finish line.

#### **Key Measures (Examples)\*:**

- Organic waste collection campaign, including collection plan and information/education
- Mitigate, capture, and utilize fugitive landfill gas emissions
- Flood protection and drainage improvements
- Planting of resilient native plant species in County green spaces
- Capital improvements to waste and water plant infrastructure

\*A full list of supplementary actions can be found in the scenarios and the Action Inventory.





## TASK 3

# ANALYSIS OF DEKALB COUNTY'S MUNICIPAL SOLAR POTENTIAL

Located within Metro Atlanta, DeKalb County's clean energy goals will affect the county, its residents, and neighboring counties. DeKalb's solar potential is a pivotal clean energy investment that can dramatically reduce the county's reliance on fossil energy. Given that DeKalb County has a large number of owned/leased county buildings, the canvas for the potential for rooftop solar for the county is quite large. Again, thanks to the IRA, investing in solar projects is becoming more affordable. Residents of DeKalb County can also benefit from increased investment in solar energy. Investments in community solar or residential solar programs can allow citizens of DeKalb to experience cleaner, more resilient energy.

### **Analysis of DeKalb County's Municipal Solar Potential**

Cherry Street Energy was selected by Southface to perform an analysis of DeKalb County's municipal solar potential that would align with the following goals of the Clean Energy Transportation Transition Plan:

- County-wide goal of 50% renewable energy adoption by 2025
- County-wide goal of 100%

renewable energy adoption by 2035

- Community-wide goal of 100% renewable energy adoption by 2045

### **Methodology**

DeKalb County, Georgia has categorized a clear and ambitious goal to utilize 100% Clean Energy and Clean Transportation powering the County's needs by 2050. Due to the timeline and broad description of DeKalb County's request for solar potential, the method of assessments focused on sites that are currently actionable by the County. It was not assumed that the County had an interest in purchasing private land to produce more solar capacity or in building additional infrastructure throughout the County to host solar power.

Our assessment focused on developed land or property that is either wholly owned or solely leased by DeKalb County. This information was compiled from three public sources of information: the DeKalb GA County Facilities Map, the Select DeKalb Site Selector, and the DeKalb County Parcel Viewer.

After compiling information from the above resources, 92 sites were assessed for solar feasibility. Following that broad feasibility assessment, a more in-depth solar viability analysis was performed by determining the structural feasibility of each building and rooftop, the financial feasibility of each installation, and additional considerations for both Cherry Street and the County. All assessments were desktop assessments; on-site surveys were not performed due to time and resource limitations.

Assessing structural feasibility for a solar installation involves reviewing the age of the building’s roof, the overall slope of the rooftop, and the type of roof that would need to bear the weight of the panels. In addition to such roofing considerations, the potential for shading was analyzed (and hence reduced solar production) by adjacent or nearby buildings, structures, or vegetation. Lastly, any County-owned facilities that were slated for decommissioning or sale in the near or middle term were removed to ensure that any solar installations would be able to produce on-site power for a minimum of 20 years.

For potential ground-mount installations, it was determined viability based on properties that had no publicly stated plans for construction or use by DeKalb County for the foreseeable future. Additionally, flood zones and zoning limitations were assessed for each facility in DeKalb County’s Facility map.

Next a financial feasibility analysis was conducted. This analysis assumed that DeKalb County would proceed only with respect to sites that provided a positive financial benefit for the County over the 20 to 25-year life span of a solar array. This analysis included reviewing the 2019 electrical billing information for the sites in question.

The billing information from 2019 was assumed to best reflect the future energy consumption of the facilities reviewed, compared to the potentially irregular electrical usage data from the COVID-19 pandemic and work-from-home mandates.

After assessing the 2019 electrical billing information, the costs were

escalated to reflect the 2024 energy rates for each utility. Assuming consumption has not changed at each facility since 2019, it was determined that the appropriate size of each array would provide the best financial outcome.

## SIZING CONSIDERATIONS

### I. Current Energy Mix

Cherry Street analyzed the DeKalb County Government’s current energy mix using data from Georgia Power’s Facts and Figures tool. The summarized energy mix data by MW generated and the percentage of renewables is featured below. Please note that this data is a representative sample only and does not represent the most up-to-date information. More data on county-owned buildings both in and outside of Georgia Power’s service territory is needed in order to complete our analysis.

	MWs	% Renewable Energy Mix
<b>Current Renewable Energy Mix</b>	10.45	9%
<b>50% County Wide by 2025</b>	58.04	50%
<b>100% County Wide by 2035</b>	116.09	100%

Current energy mix for DeKalb County is comprised of gas, oil, nuclear, coal, and renewable sources.

Based on the available data, renewable energy sources account for only 9% of DeKalb County’s current energy mix. Thus, to achieve its goals, the County will need to aggressively expand on-site solar power generation on every County-owned building where doing so is structurally feasible.

## II. Current Energy Consumption

Using our electricity usage data from 2019, Cherry Street was able to compile the energy demand of each department across the DeKalb County Government:

County Department	Total (kWhs)
Administrative	21,544,769
DCG	34,908,798
Fire Stations	8,985,944
Parks	3,284,031
Airport	966,676
Police	19,650,002
Sanitation	1,726,600
Senior Centers	2,355,631
Watersheds	74,900,800
<b>Total</b>	<b>168,323,251</b>

2019 total electric generation in kWhs by DeKalb County Government department

## Addressable Capacity

Using available electricity data from DeKalb County and Georgia Power, Cherry Street estimated the total potential for adding solar PV capacity to the County's existing infrastructure. It was determined that DeKalb County could install nearly 18,302 kW (DC)<sup>1</sup> of on-site solar power between rooftops and ground mounts. The addition of this amount of capacity would increase the County's share of renewable energy in its overall energy mix by an additional 16%, bringing DeKalb's renewable energy total to 25%.

<sup>1</sup> In DeKalb County, the expected yield or performance ratio of a solar system is 1450 kWh/kWp. Thus, 18,302 kW-DC of installed solar would be expected to produce 26,537,900 kWhs (18,302 x 1450) or 15.8% of total generation (26,537,900/168,323,251 = 15.8%).





Site Name	Estimated Solar Capacity kW (DC)
Polebridge WWT	6920
Scott Candler Filter Plant	2860
Snapfinger Creek WTP	1302
Court House	940
Tax Commissioner (North)	760
Animal Services	605
Sherriff's Department	548
Tax Commissioner - South Office	433
South Precinct	360
178 Sams Street	299
Dunwoody Library	238
Sanitation Central Admin	232
Workforce Development	231
Watershed Management	220
Lou Walker Senior Center	214
T.O. Vinson Health Center	165
Avis G. Williams Library	137
East DeKalb Health Center	130
Public Library Processing	125
Redan Recreation Center	125
Treasury & Accounting	121
Tucker-Reid H. Cofer Library	102
Bruce Street Senior Center	95
North DeKalb Health Center	94
North DeKalb Senior Center	87
Salem-Panola Library	86
Exchange Recreation Library	84
Hairston Crossing Library	79
East Precinct	73
Gresham Recreation Center	68
South DeKalb Senior Center	63
DeKalb-Atlanta Senior Center	61
Medical Examiner	61
Mason Mill	54
Tucker Precinct	48
Tax Commissioner - North Office	45
Central DeKalb Senior Center	38
Roads & Drainage	38
NH Scott Recreation Center	37
Chamblee Library	35

## Potential Sites for Solar

The following table lists our top thirty-nine (39) County-owned buildings and sites that we believe to be the best candidates for solar PV installations, organized from largest estimated capacity to smallest. For each system, Cherry Street modeled solar PV production using Hanwha, Q.Peak Duo XL-G10.3/BFG 475W modules. The estimated solar capacity (kW-DC) for each building is subject to change based on module and equipment availability.

## Conclusion

Cherry Street appreciates the opportunity to present this full assessment of DeKalb County's on-site solar PV potential. Based on our detailed site feasibility studies, rate analyses, and engineering assessments, the above procurement strategy would allow the County to jump from 9% to 25% renewable energy usage in its overall energy mix, making substantial headway toward its longer-term Clean Energy goals.<sup>20,21,22,23</sup>

## TASK 4

# RECOMMENDATIONS ON INCREASING EQUITY AND ADDRESSING ENERGY BURDEN WITHIN THE COUNTY

Today, equity issues within DeKalb County remain prevalent. Energy burden is commonly defined as any household spending six percent or more of their monthly income on energy needs.<sup>6</sup> Mapping these energy burden hotspots is critical for ensuring that clean energy investments are being made within these areas. Historically, these neighborhoods have been disinvested in and overlooked. When creating the Plan, DeKalb's energy-burdened hotspots were of high priority as these neighborhoods would benefit from direct financial assistance and overall higher levels of clean energy investment. Addressing these issues is critical for ensuring the longevity of the Plan.

### SECTION SUMMARY

As part of the DeKalb County Clean Energy Transportation Transition Plan, IB Environmental (ibE) conducted an equity analysis utilizing census data metrics including income, poverty, and supplemental nutrition assistance program (SNAP). This data was then combined with energy and water utility bill data. The result was various metrics

that assess the financial distress of residents of the County. Tables are provided that compare how different income brackets within the County are affected by typical electricity bills. Maps are also provided that subdivide the County into census tracts.

These maps illustrate how the financial stress on customers is distributed across the County. Specific "pockets of poverty" (PoPs) are highlighted on the maps, directing the County and other assistance programs on where to focus their efforts most.

### AFFORDABILITY ASSESSMENT

To assess equity within the County, the project team considered affordability in the following ways:

#### **Affordability for the Average Residential Customer:**

- Percent of Median Household Income Spent on Energy Bills (%MHI)
- Range of Percent of Household Incomes Spent on Energy Bills

#### **Affordability for Low-Income Customers:**

- % of household income spent by low-income households
- % of household incomes spent by low-income homeowners

#### **Overall Socioeconomic Status:**

- DeKalb County compared to State averages
- DeKalb County compared to National averages

## SECTION 1: AFFORDABILITY FOR AVERAGE RESIDENTIAL CUSTOMERS

Information on affordability is available from the United States Census on different levels. The “household” level best reflects the citizens of the County. “Household” includes all the people who occupy a housing unit as their usual place of residence, whereas “homeowners” are defined as those persons who own their own home and are not renting.

While many efforts were made to obtain average/typical residential bill amounts from both electricity and gas utilities, this data was not provided. Fortunately, the model ibE created allows the input of any bill amount. In this report, inputs of \$100 for electricity and \$50 for natural gas are used, which are considerably below some of the published estimates. For example, according to EnergySage, in Atlanta, GA, the average monthly electric bill for residential customers is \$252 per month, calculated by multiplying the average monthly consumption by the average electric rate: 1,602 kWh multiplied by 16 cents per kWh. Therefore, this assessment, at \$150 per month, is very conservative in terms of the level of energy burden in the County.

The most commonly used indicator of affordability of energy bills is the “% MHI,” or “percent of median household income” spent on average bills. This is calculated as the ratio of annual electricity/gas bills at the average consumption level to the median household income of the community. Half of the households in the community make at least the “median household income” (MHI) annually, and the other half makes less than the MHI.

There is no national standard for what constitutes an affordable % MHI value for energy use, but commonly used thresholds are:

- 6-10% of Median Household Income spent on energy is considered a high burden
- Greater than 10% of Median Household Income spent on energy is considered a very high burden

Table 1 shows the bills in DeKalb County for use of \$100 for electricity and \$50 for gas, per month. It shows that half of the households are paying more than 2.33% of their annual income on energy, assuming the total bill amount of \$150.

	Current Rates
Monthly energy bills / month	\$150
Annual energy bills at same level of use	\$1,800
Median Household income in 2022 for DeKalb County, Georgia	\$77,169
Energy bill % MHI	<b>2.33%</b>

**Table 1.** depicts the current rates where the Energy bills are set at \$150 per month.



## SECTION 2: AFFORDABILITY FOR LOW-INCOME CUSTOMERS

Because DeKalb’s Clean Energy Transportation Transition Plan prioritizes equity in its assessment of affordability, this Plan elects to use metrics that specifically account for low-income customers in lieu of other commonly used affordability indicators, such as % MHI, which may not fully highlight the needs of low-income customers. There is also an association between renters and higher affordability issues, so this section distinguishes renters from homeowners for some metrics. For many communities, a substantial portion of their citizens make less than the MHI of their community. For example, there is a large number of households that make less than \$25,000/year. In those cases, a larger portion of household income will be spent to pay the same monthly charges for energy as those who make more than \$25,000/year.

So, even though many communities often use % MHI to assess the overall burden of their energy bills, it is prudent to focus attention and assistance on low-income customers specifically. Table 2 identifies the percentage of people in different income brackets, highlighting the three lowest income brackets.

Income bracket (All Households)	% of service population in 2022 (includes homeowners and renters)	% of service population in 2022 of homeowners (excluding renters)	Minimum portion of household income spent by these customers annually
Less than \$10,000	5.7%	2.9%	18.00%
\$10,000 to \$14,999	2.4%	1.6%	12.00%
\$15,000 to \$24,999	6.5%	4.0%	7.20%
\$25,000 to \$34,999	7.2%	4.6%	5.14%
\$35,000 to \$49,999	10.6%	8.6%	3.60%
\$50,000 to \$74,999	16.4%	14.6%	2.40%
\$75,000 to \$99,999	11.9%	12.1%	1.80%
\$150,000 or more	22.6%	32.6%	0.90%

**Table 2.** Displays the percentage of customers within the DeKalb customer base across income brackets, where the assumed bills are \$100 for electricity and \$50 for gas. Red text signifies low-income households.

As seen in Table 2, homeowners in DeKalb have higher incomes than renters. This creates specific equity challenges. It makes the case for focusing equity initiatives on renters, but this group can be difficult to reach. The contact information on file with the utility may be for the landlord and not the renter. Lower incomes also mean that renters have a higher energy burden, as seen in Table 3.

### SECTION 3: RANGE OF PERCENT OF HOUSEHOLD INCOMES SPENT ON ENERGY

Percent of household income spent on bills	Minimum percent of households	Minimum percent of homeowners
2%	48.8%	36.3%
3%	32.4%	21.7%
4%	21.8%	13.1%
5%	21.8%	13.1%
10%	8.1%	4.5%

**Table 3.** Depicts the percentage of income spent on a Monthly \$150 Energy Bill.

More than 48% of households would spend at least 2% of their income on energy bills if their monthly bill is \$150. In contrast, only 36% of homeowners would spend at least 2% of their income on energy bills under the same conditions. This highlights some of the economic disparities between homeowners and renters.

### SECTION 4: KEY SOCIOECONOMIC INDICATORS FOR DEKALB COUNTY

In addition to the consideration of energy bills, this report also identifies metrics that further characterize the economic conditions of DeKalb County (Table 8). These indicators, while not direct measurements of utility burden, provide a depth of insight that more fully captures the economic state of a given community.

Year: 2022	DeKalb County, GA	Georgia	United States
Median Household Income	\$77,169	\$72,837	\$74,755
% Unemployment	3.3%	2.6%	2.7%
% Not in the labor force	32.8%	36.1%	36.5%
% of all people with income below poverty	13.4%	12.7%	12.6%
% with Social Security income	26.3%	29.3%	31.1%
% with Supplemental Security Income	4.3%	5.1%	5.1%
% with cash public assistance income	2.3%	1.7%	2.5%
% with Food Stamp/SNAP benefits	12.2%	13.2%	12.4%

**Table 4.** Depicts key socioeconomic indicators, comparing DeKalb County's socioeconomic statistics with state and national averages. Each value for DeKalb County shown in red, indicates that the value is 'more stressed' than the state and national averages.

Figure 1.1 - Lower Assumed Monthly Bills

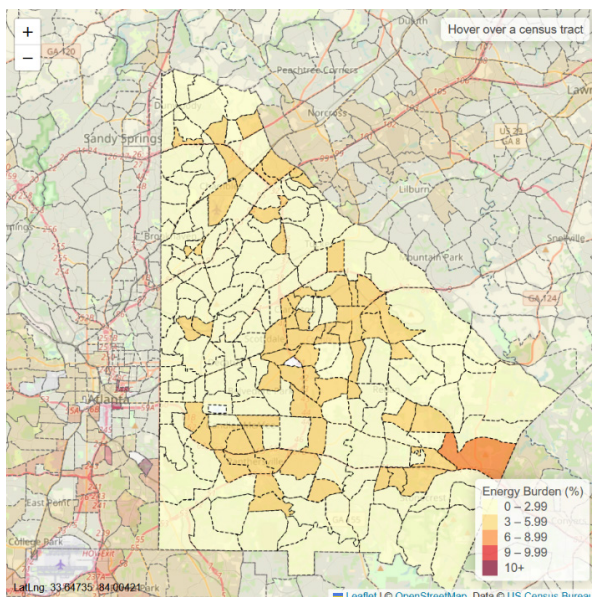


Figure 1.1 assumes monthly bills are \$100 for electricity and \$50 for gas.

Figure 1.2 - Higher Assumed Monthly Bills

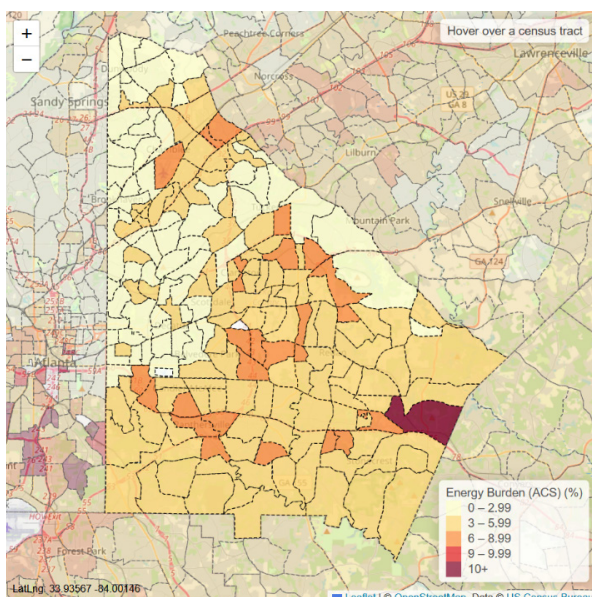


Figure 1.2 assumes monthly bills are \$150 for electricity and \$80 for gas.

Energy burden is higher in the Southeastern United States than in most parts of the country. Due to rate increases such as a 12% cost shift in 2023, approved by the Public Service Commission, from Georgia Power Company to customers, households—especially low-income households—previously not burdened or only mildly burdened are at risk of experiencing a greater energy burden.

Poverty Indicators in DeKalb County

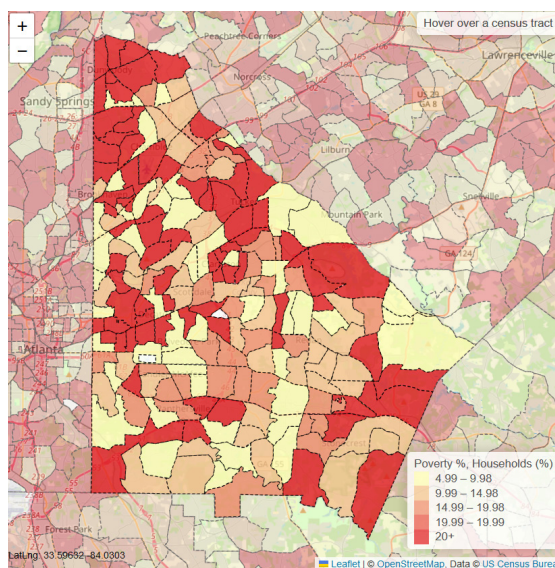


Figure 2.1 displays the Percent of Households in Poverty by Census Tract

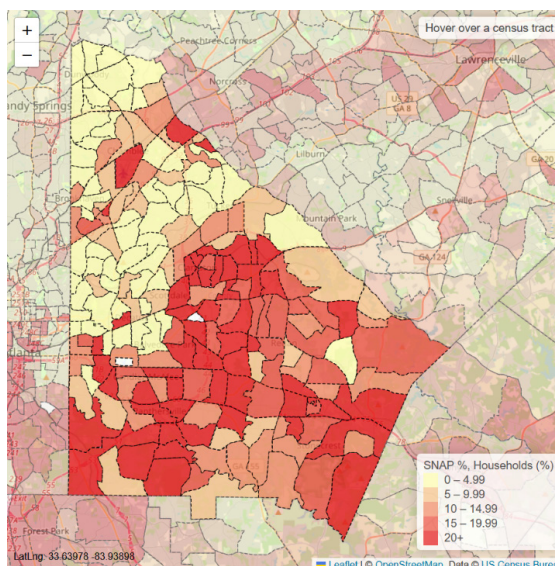


Figure 2.2 displays the Percent of Households Receiving SNAP by Census Tract

Poverty has a stronger concentration in the southern half of DeKalb County, and the likelihood of encountering households receiving Supplemental Nutrition Assistance Program (SNAP) benefits increases in these southern areas. A notable exception in the northern half of the county is the area around Buford Highway, which has long been known for its large Latino and Asian community.



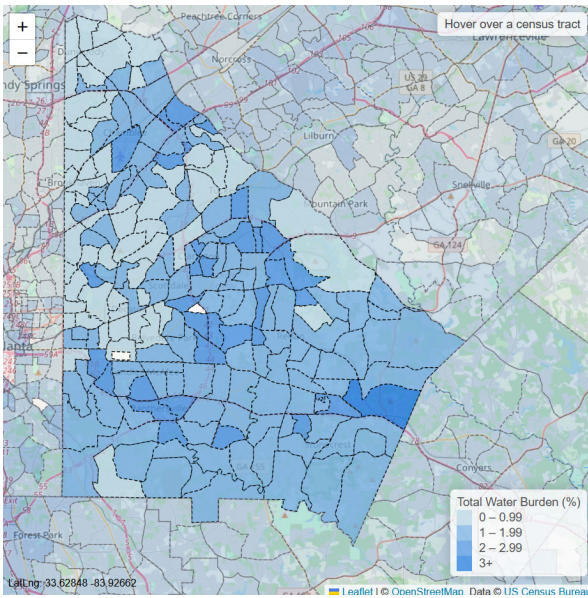


Figure 3.1 Total Water Burden (%) by Census Tract

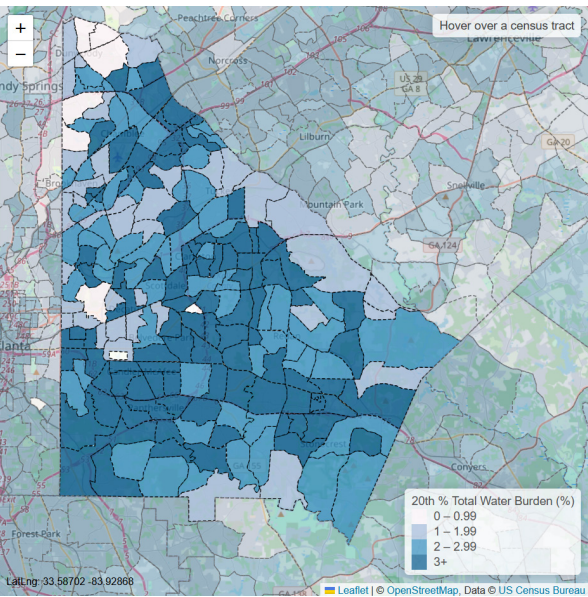


Figure 3.2 20th Percentile Total Water Burden (%) by Census Tract

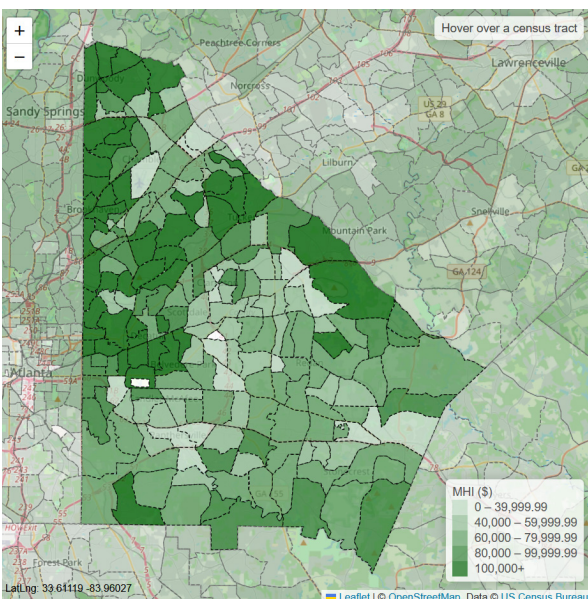


Figure 4.1: Median Household Income by Census Tract in DeKalb County

Figure 3.1 depicts Total Water Burden, which is defined as the percentage of household income spent on drinking water, wastewater, and stormwater expenses.<sup>24</sup> A Total Water Burden above 3% is considered high; elevated levels of Total Water Burden are found in the southern half of DeKalb, closer to the City of Atlanta city center, in East Atlanta, and in Clayton County. The more northern suburbs of DeKalb experience a lower Total Water Burden.

Apart from the median, the “20th percentile” has evolved in the water industry as a useful metric of affordability, because it drills down to the lower income brackets of the population, as opposed to the middle.

DeKalb County has both pockets of poverty and pockets of wealth. The more affluent households by census tract are in darker green, while less affluent households are in lighter green. As noted in earlier sections, there is a higher concentration of wealth towards the northern half of the county, with an area of exception again being the multicultural Buford Highway.

## SECTION 5. ALLEVIATING INEQUITIES BY INVESTING IN COMMUNITY

There is a broad spectrum of strategies that can be employed to address inequality. This Plan's strategy centers on alleviating inequalities through investing in the community, efforts best exemplified by the PAYS™ and PACE programs, highlighted below.

A Pay as You Save (PAYS™) program enables energy efficiency upgrades for utility customers without upfront costs. Customers pay for improvements with energy savings over time through their utility bills, leading to lower energy usage and savings for the customer. This is a form of on-bill financing.

The Property Assessed Clean Energy (PACE) financing model provides funding for energy efficiency and renewable energy projects by allowing property owners to repay the costs with their property tax bills. This mechanism facilitates access to upfront financing and allows repayment over multiple owners, encouraging the type of deep retrofits that can help build generational wealth. Considering that approximately a quarter of total energy use in Georgia comes from residential use, this program has the potential to affect substantial use impacts (consumer costs, indoor air quality, etc.) subsequent to a reduction in fossil-fueled energy consumption.

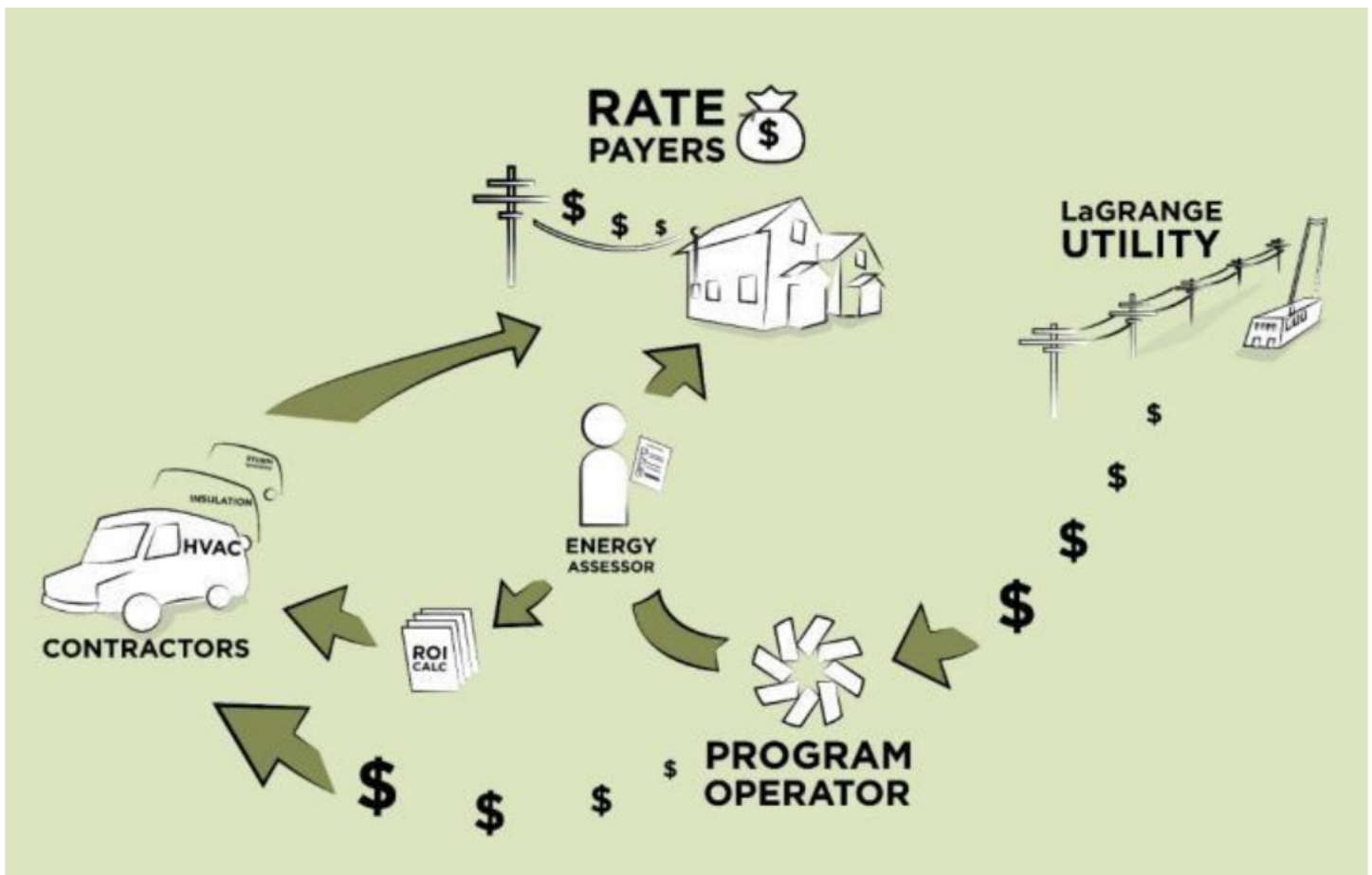


Figure 5. PAYS Program Diagram by Southface (for LaGrange, GA)

## Customer Assistance Programs

There are several programs that can help customers with urgent needs in relieving energy burden. As discussed in the blog post, Low-Income Energy Assistance Programs in Georgia, the assistance programs fall into two main buckets: bill payment assistance programs and energy efficiency programs. A good starting point for a customer to plug into some of these programs is the Partnership for Community Action since that organization runs a few different assistance programs.

The following list provides examples of CAPs:

- Energy-Saving Efficiency and Education Programs by Utilities - e.g. Georgia Power's Senior Discount
- Family Support Program - Partnership for Community Action
- Project Share - Salvation Army - DeKalb County
- DeKalb Caring for Others
- Low-Income Household Energy Assistance Program (LIHEAP) - Partnership for Community Action (USDHHS)
- Low-Income Household Water Assistance Program (LIHWAP) - Partnership Community Action (USDHHS) (though ended in 2023, there is some work to get it restarted)
- Emergency Rent, Mortgage, and Utility Assistance - Society of St. Vincent de Paul
- DeKalb Emergency Assistance Program - Urban League of Greater Atlanta
- Emergency Assistance Program - Jewish Family & Career Services of Atlanta

## Further Discussion

**Water Burdens:** Apart from the existing assistance programs listed above, many water utilities have their own assistance program to help their low-income customers. A utility-specific program is especially important since the national water assistance program ended in 2023. The County can look at some local examples of such programs and consider adopting relevant aspects. Assistance with essential needs such as water, housing, etc., leaves more money in the household budget for paying energy bills.

**Solar Power:** The opportunity for lower-income households to participate in solar energy has been a controversial conversation. Due to the relatively high upfront costs of solar installation, it has been a challenge to devise systems where people without a lot of disposable income can participate. Georgia Bright is an example of a program that has evolved to address that gap. Nonprofits like Capital Good Fund are using federal tax credits to reduce the cost of solar panels for low to moderate-income homeowners. The first round of Georgia BRIGHT will install solar panels on the homes of 200 Georgia households making less than \$150,000 a year. Any homeowner (or tax-exempt organization) in Georgia is eligible. Georgia Bright uses federal funding, grants, and discount bulk purchase discounts to bring the homeowner's power bill down — saving the average family 20% a month or about \$10,000-\$15,000 over the term of the lease. The program has received over \$150 million in federal funding to expand over the next 5 years to service thousands of households across Georgia.

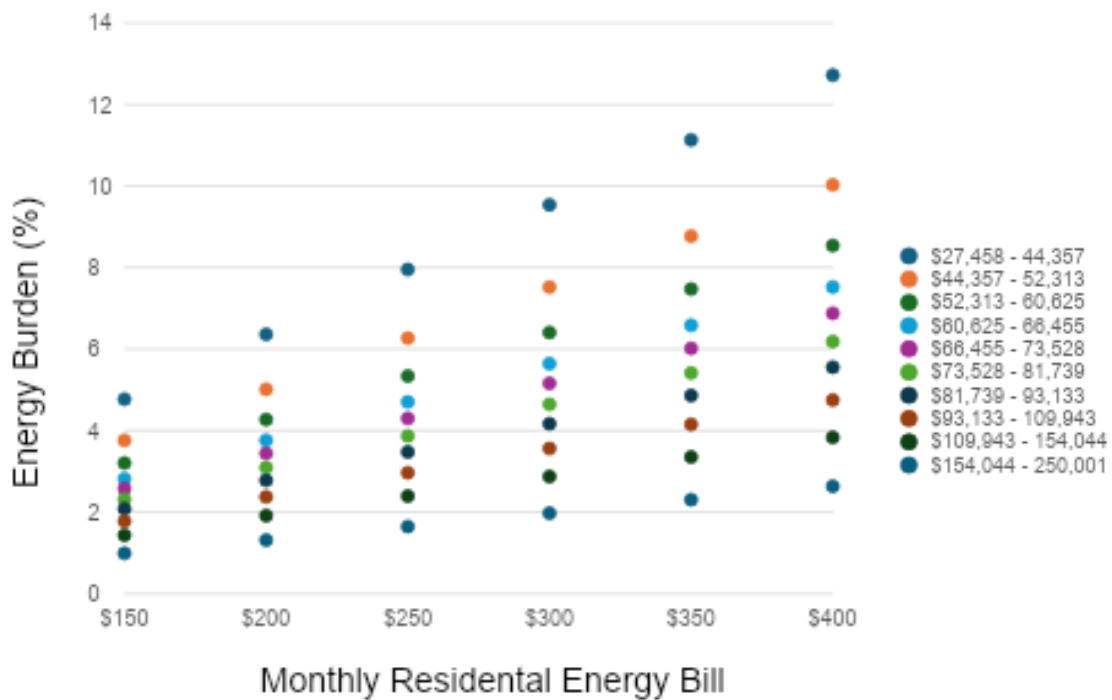


During review of the first version of the Plan, the DeKalb County Board of Commissioners Central Staff team had asked the project team to also include an incremental equity mapping analysis. Below are the results.

**Energy Burden:** Refers to the percentage of household income spent on energy expenses. The figure below illustrates Energy Burden (%) across 10 income bins, where each bin encompasses approximately 76,000 residents. The income range for each bin is determined by the population distribution. Energy Burden (%) is shown for monthly residential energy bills, increasing in \$50 increments, ranging from \$150 to \$400.

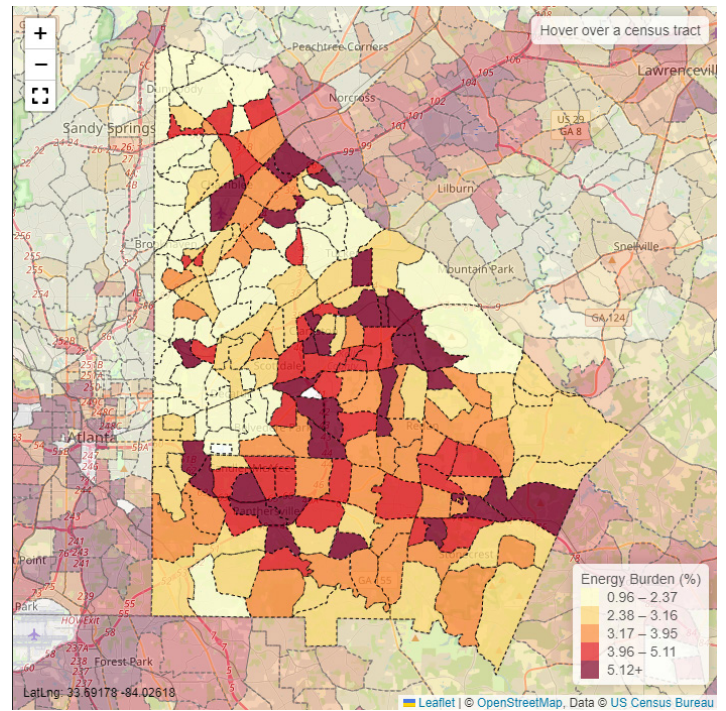
Lower Boundary MHI (\$)	Upper Boundary MHI (\$)	Population
\$27,458	\$44,356	75,616
\$44,357	\$52,312	73,187
\$52,313	\$60,624	78,981
\$60,625	\$66,454	76,483
\$66,455	\$73,527	72,981
\$73,528	\$81,738	78,804
\$81,739	\$93,132	75,866
\$93,133	\$109,942	75,353
\$109,943	\$154,043	77,790
\$154,044	(No Upper Limit)	76,148

**Table 1.** Income Bins. Energy Burden Across Increasing Monthly Residential Energy Bills

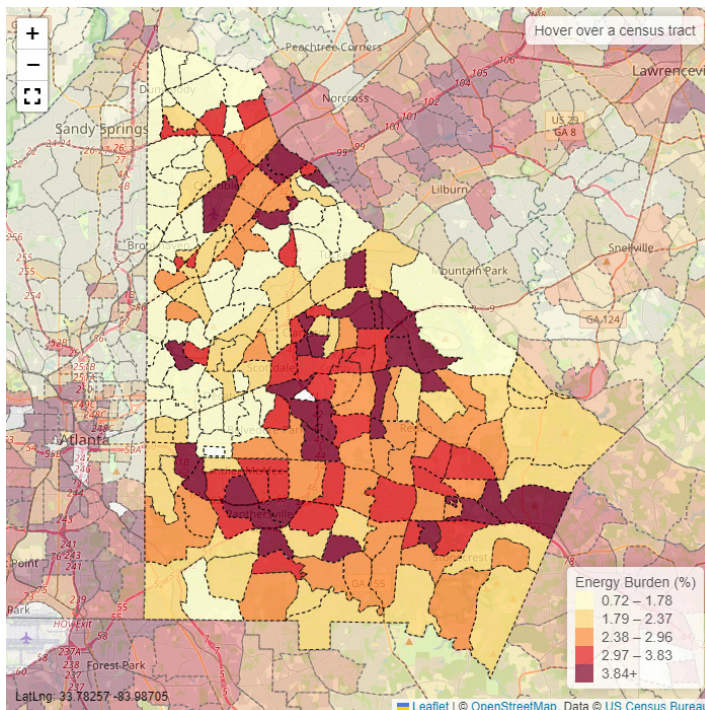


Supplemental mapping figures included in this document display a spectrum of monthly costs for utility bills for residential utilities in DeKalb County. The goal of these added figures is to provide a broader representation of energy bills percentage of median household income for DeKalb residents. Note that the unit uses Energy Burden, which is the percentage of a household's income that is spent on energy costs.

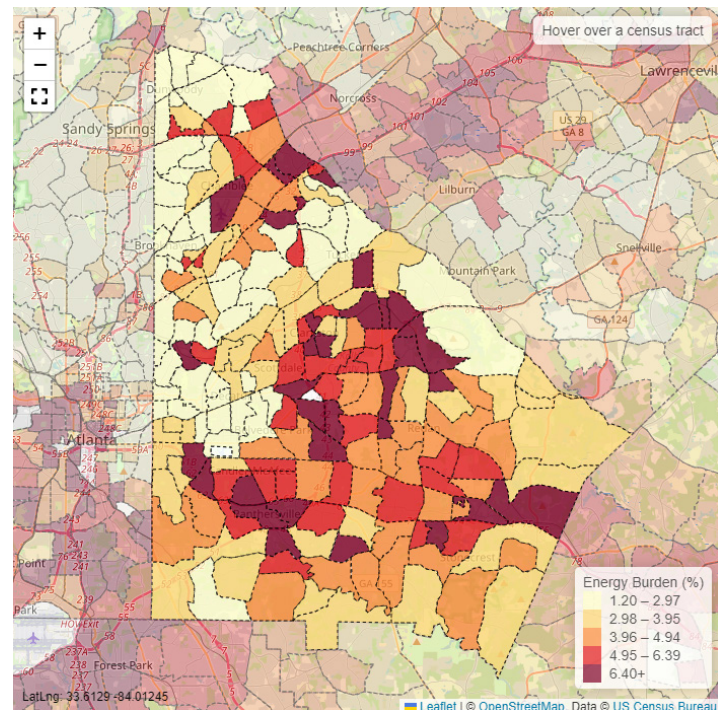
**Supplemental Figure 2. Monthly Residential Energy Utility Bill set to \$200**



**Supplemental Figure 1. Monthly Residential Energy Utility Bill set to \$150**

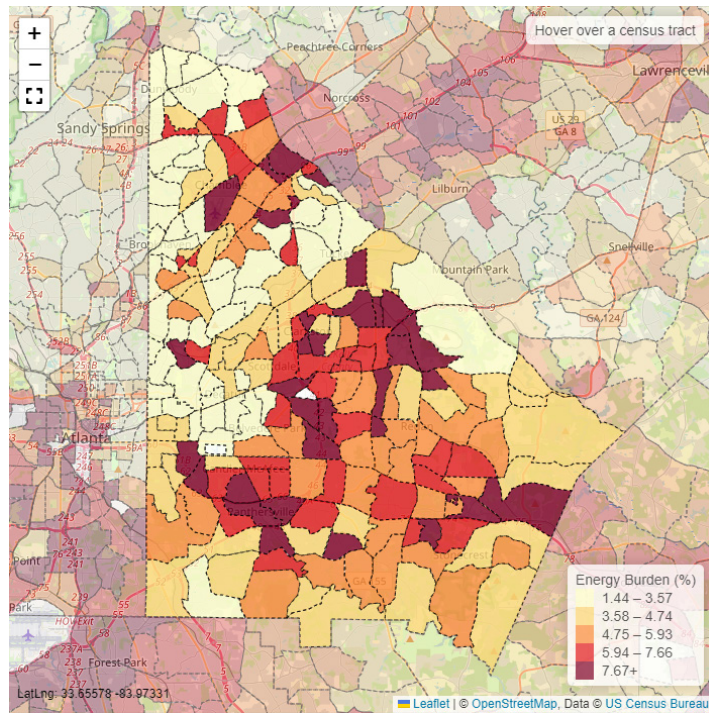


**Supplemental Figure 3. Monthly Residential Energy Utility Bill set to \$250**

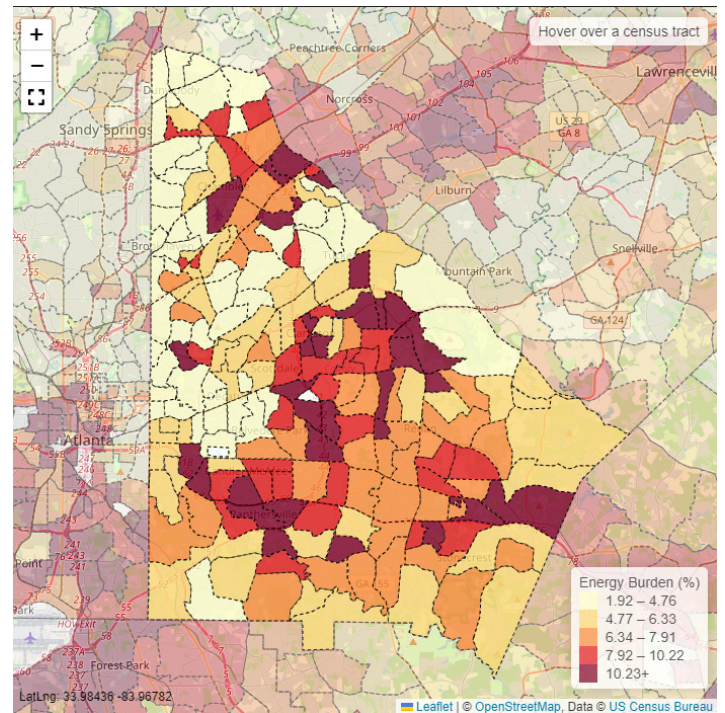




**Supplemental Figure 4. Monthly Residential Energy Utility Bill set to \$300**



**Supplemental Figure 5. Monthly Residential Energy Utility Bill set to \$400**





TASK 5

# PUBLIC STAKEHOLDER INCLUSION FOR AN OPEN, INCLUSIVE, AND TRANSPARENT PLANNING PROCESS

Throughout the community engagement process, citizens of DeKalb County, industry professionals, and academic leaders participated in community engagement sessions. Four community engagement sessions were held in person, which informed over 150 community members on various topics related to clean energy. Each session was led by industry experts and policy leaders who offered a unique perspective on the clean energy industry and focused on various levels of engagement.

The Community Climate Champions Cohort was identified as a mechanism for developing a group of interested citizens and industry professionals to be the clean energy voice of DeKalb County.

At each community event, community input was recorded on topics like the uniqueness of DeKalb County, feedback on deliverables of the Plan, and sharing energy-related anecdotes from both individual and community perspectives. In an effort to make all sessions as interactive as possible, flip charts were hung to record community input, and breakout groups were employed to collect citizen-level and industry-level input. For equity purposes, for members of the community who could not attend the community events, recorded webinars and event slide decks have been made public and can be found at [www.cleanenergyDeKalb.com](http://www.cleanenergyDeKalb.com). Below is a summary of each community event that was held.

## Preliminary Schedule



## **Clean Energy Myth Busting - October 14, 2023 | Attendees 100+**

Like most things, there are some common misconceptions around clean energy investments, especially at the homeowner/renter level.

This session focused on five common myths about clean energy. Partnering with DeKalb's Green New Deal Summit, the consultant team presented to participants in two rounds of sessions. Educating members of the community on these myths served as a great way for citizens to gain access to accurate information regarding various clean energy decisions and investments that can be made.

## **Air Sealing in Existing Homes - November 8, 2023 | Attendees 30+**

With DeKalb County primarily being a bedroom community, the focus of the 2nd community event centered around home energy improvements, specifically air sealing. A properly sealed building envelope potentially saves 30% of a household's energy costs. Sealing techniques are low-cost and easily achievable in a Do It Yourself (DIY) effort. Partnering with DeKalb's World Planning Day, the consultant team hosted a community engagement session with a presentation and a hands-on demonstration component. According to the 2050 DeKalb Unified Plan, the median year for homes built in DeKalb County is 1981.<sup>25</sup> In contrast, the National Home Builders Association indicates that the median age of housing stock in Georgia ranges from 23 to 30 years.<sup>26</sup> Recognizing this difference, this community event was extremely important given the older age of DeKalb's housing stock. Led by industry professionals, this community event outlined

the energy and economic benefits associated with proper air sealing.

## **Demystify Your Energy Bill & Discover Ways to Lower It - February 6th, 2024 | Attendees 30+**

Everyone pays for utilities, but not everyone understands what they are paying for. The 3rd community event centered around understanding energy bills. This community event helped residents understand what charges ratepayers cannot control and measures they can take to lower their bills. The location for this event was the Candler-McAfee neighborhood, which is federally defined as energy-burdened. With this in mind, citizens were encouraged to bring their energy bills for utility representatives, industry experts, and policy leaders to analyze and provide advice on ways to drive down energy costs. Community members shared various programs they are partaking in that have significantly reduced their energy bills.

## **Discover How Your Utility is Regulated - March 16th, 2024 | Attendees 20+**

The 4th community event centered around educating members of the community on how Georgia Power and Electric Membership Corporations (EMC) are regulated. Industry professionals led the conversation on the Public Service Commission (PSC) and the Integrated Resource Plan (IRP), among other materials. To incentivize community input, breakout groups between citizens and industry professionals were held after the presentation for further discussion and brainstorming on how DeKalb can implement clean energy, given the regulatory uncertainty.

## TASK 6

# ASSISTANCE IN DEVELOPMENT OF A CLEAN ELECTRICITY AND VEHICLE PROCUREMENT STRATEGY

According to the U.S. Environmental Protection Agency, 28% of national Greenhouse Gas (GHG) emissions come from the transportation sector. Accounting for over ¼ of total GHG emissions, decarbonizing the transportation sector is essential for achieving the national clean energy goals.<sup>27</sup> However, in DeKalb County, transportation accounts for 48% of county-wide emissions. Developing an expansive community charging network will allow more residents of DeKalb County to enjoy the benefits of driving an electric vehicle while reducing their dependence on carbon-intensive gasoline. Moreover, investing in EV charging infrastructure will increase the range of the County's fleet.

DeKalb County's Fleet Management team has one of the leading green fleets in the state, if not the nation. Since 2014, DeKalb County Fleet Management has frequently placed in the top 10 of 100 Best Fleets across North America, ranking #1 Best Fleet in 2018. DeKalb's fleet reduced 14% of total gasoline gallon equivalents and 7% of GHG emissions last year alone. The fleet has 363 Compressed Natural Gas (CNG) trucks, 63 Propane vehicles, and now up to 111 Electric

Vehicles (EVs). Fleet Manager Robert Gordon projects that their fleet will be 100% zero emissions in the next 20 years. With the public fleet already serving as a leader in the clean transportation transition, the Clean Cities Georgia (CC-GA) team chose to focus on other ways to increase the overall adoption of zero-emission vehicles.

By prioritizing EV infrastructure and strategically placing charging stations in areas frequented by community members, likelihood of EV adoption can be significantly enhanced. This approach is a highly effective method for reducing carbon emissions. Transitioning to electric personal vehicles is a particularly achievable goal. According to a Mobility Survey conducted in the Atlanta metro area:

- 72% of respondents prefer personal vehicles
- 25% prefer buses
- 11% carpool
- 24% use rideshares

The remaining percentages are distributed among bikes, scooters, trains, and other transit options.<sup>28</sup> Given these preferences, focusing on personal vehicles represents the most promising demographic for encouraging EV conversion.

Through a series of mapping exercises, looking at the locations of existing charging stations, taking into account city limits, county-owned properties, key community gathering spaces, and the areas of DeKalb most overburdened by transportation pollution, the team decided on a list of ten locations to propose for both fleet and community charging. As can be evidenced by the map below, DeKalb County has very little



charging in the southern half of the county, where the most energy-burdened and pollution-burdened community members reside. The gray areas on the map represent cities that are excluded from the energy burden hotspot analysis, representing city limits where DeKalb County cannot directly influence outcomes. The analysis focuses solely on unincorporated DeKalb County, with the darkest blues indicating communities that bear the largest burden of environmental injustices.

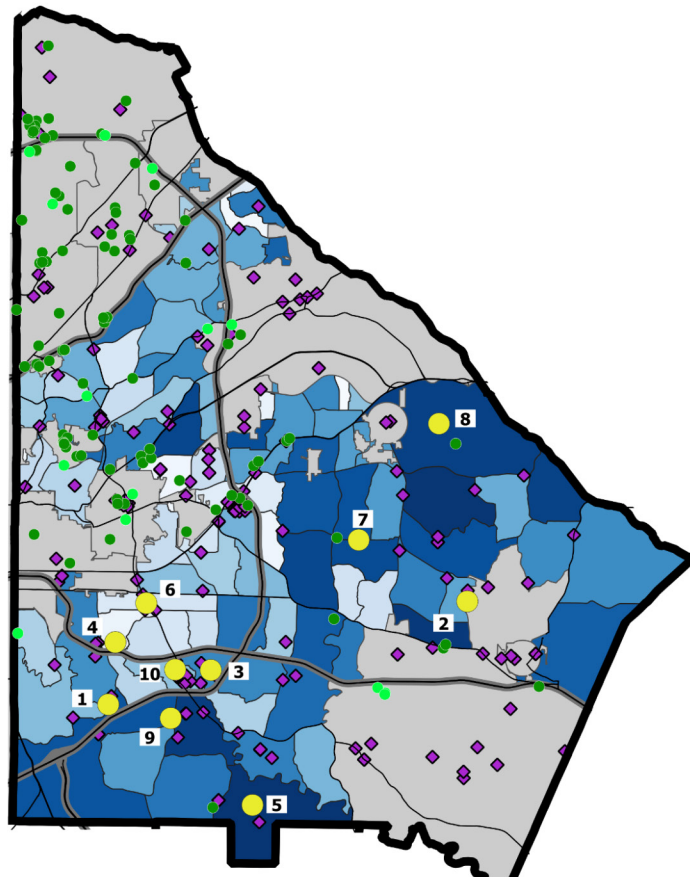
The team surveyed locations in these areas that are community gathering places, preferably on county property or near county facilities for easy fleet access, have additional amenities, and are safe locations for EV-driving residents to charge. Although 85% of charging is done at home, this

works only for single-family residents, not residents in apartments, condos, and multi-family dwellings. Public charging is crucial to increase adoption and show residents, particularly those who do not own a single-family home, that they can be assured of a local place to charge if they purchase a used or new EV. In addition, it offers more charging options for EV owners who can charge at home but would like to 'top off' their vehicle's charge while on the go.

CC-GA hosted a community meeting on July 31st, 2024, to solicit input from community members on the initial recommended locations. There was significant community interest from local residents and EV owners regarding the charging locations, with an emphasis on safety, nearby

Sources:  
 ERSI  
 DeKalb County GIS  
 Department  
 US Environmental Protection  
 Agency

- Proposal Locations
- Charging Stations
  - DC
  - L2
  - ◆ DeKalb Owned Facilities



activities while charging, and the ability to leave vehicles overnight safely. Residents offered several key notes of feedback to be incorporated into the final selection of locations:

- Requested more locations be included that covered more areas in the South half of DeKalb County
- Locations selected based on safety considerations such as lighting, walkability for nearby residents to leave vehicles overnight, placed in the front of parking lots to increase visibility, including cameras as an added safety feature
- Offer a variety of levels of charging: Level 1 near apartments where they can charge overnight; Level 2 with a time cap of 2 hours to ensure access for multiple vehicles; Level 3 at a few key locations near highways and transit hubs for quick charges and traveling needs
- Reduce energy burden on the grid in already energy-burdened areas by incorporating solar canopies to supplement the grid with clean energy
- Incorporate resiliency into the charging locations with potential travel pods

After receiving this input from invested community members, the CC-GA team revisited the list of recommended locations and ranked them according to levels of safety, walkability, nearby amenities, and whether it was close to residents (see Appendix for details). A couple of locations were removed from the final list due to safety concerns, and a couple of locations were added that

the community highly encouraged. The locations below are a starting point to further EV adoption and are by no means an exhaustive list. Phase I includes county-owned facilities where charging can swiftly be added as funds become available to the county. Phase II includes facilities that are highly trafficked but would require partnerships with other property owners in order to implement, which would also likely require more time to complete.

## Phase I County-Owned Charging Locations

(in order of priority based on safety, amenities, and walkability)



### Gresham Park

Features: Pool, walking trails, residents and nearby school



### Redan Recreation Center

Features: Walking trails and sporting center, residential area nearby



### Exchange Recreation Center

Features: Pool, residents, playground



### NH Scott Recreation Center

Features: Walking trails, residents, and playground



### Ellenwood Library

Features: Near residents, near future recreational facility (Ellenwood Recreational Center)



### Scott Candler Library

Features: Near shops and apartments



### Hairston Crossing Library

Features: Near shops and residents



## Phase II Partnership Charging Locations

(in order of priority based on safety, amenities, and walkability)



### Stone Mountain Park

Features: Biking and hiking trails, water activities, camping, laser show, holiday activities



### Georgia State University: Perimeter College Decatur Campus

Features: Walking trails and access for students while taking classes



### South DeKalb Mall

Features: Shops

## TASK 7

# CREATION, EDUCATION, AND ENGAGEMENT OF A DEKALB CLIMATE TASK FORCE

As outlined in the RFP under Task 7, the DeKalb Climate Task Force is envisioned as the implementation task force for the DeKalb Clean Energy Transportation Transition Plan.

After careful deliberation with County Staff, the consultant team is suggesting a new position be added within the Chief Operating Officer's (COO) office that will lead a Sustainability Office and DeKalb Climate Task Force and be responsible for implementing all components of the Plan. A Deputy COO-Sustainability Officer will be responsible for the implementation of the Plan.

### **SUSTAINABILITY OFFICER (DEPUTY COO)**

The Sustainability Officer (Deputy COO) will be positioned within the COO's office and will oversee the implementation of the DeKalb Clean Energy Transportation Transition Plan. This role is responsible for additional future planning for clean energy and energy efficiency actions, ensuring timely clean energy investments according to the Plan's outcomes, and facilitating cross-departmental coordination for effective implementation within various county departments.

## **IMPLEMENTATION BODIES**

DeKalb County requested Southface to review a proposed Environmental Justice Commission. As part of the DeKalb Clean Energy Transportation Transition Plan, Task 7 calls for the creation, education, and engagement of a DeKalb Climate Task Force. In an effort to fulfill this requirement, Southface has reviewed the proposed Environmental Justice Commission and proposed model legislation for its institutionalization.

The original deliverable called for a task force responsible for the implementation and accountability of the DeKalb Clean Energy Transportation Transition Plan. With the addition of an environmental justice component, Southface and the consultant team believe that it is a great step toward an equitable, just, and sustainable future. After a review of the original Environmental Justice Commission, Southface is proposing a joint Environmental Justice and Sustainability Board to ensure the institutionalization of the Plan.

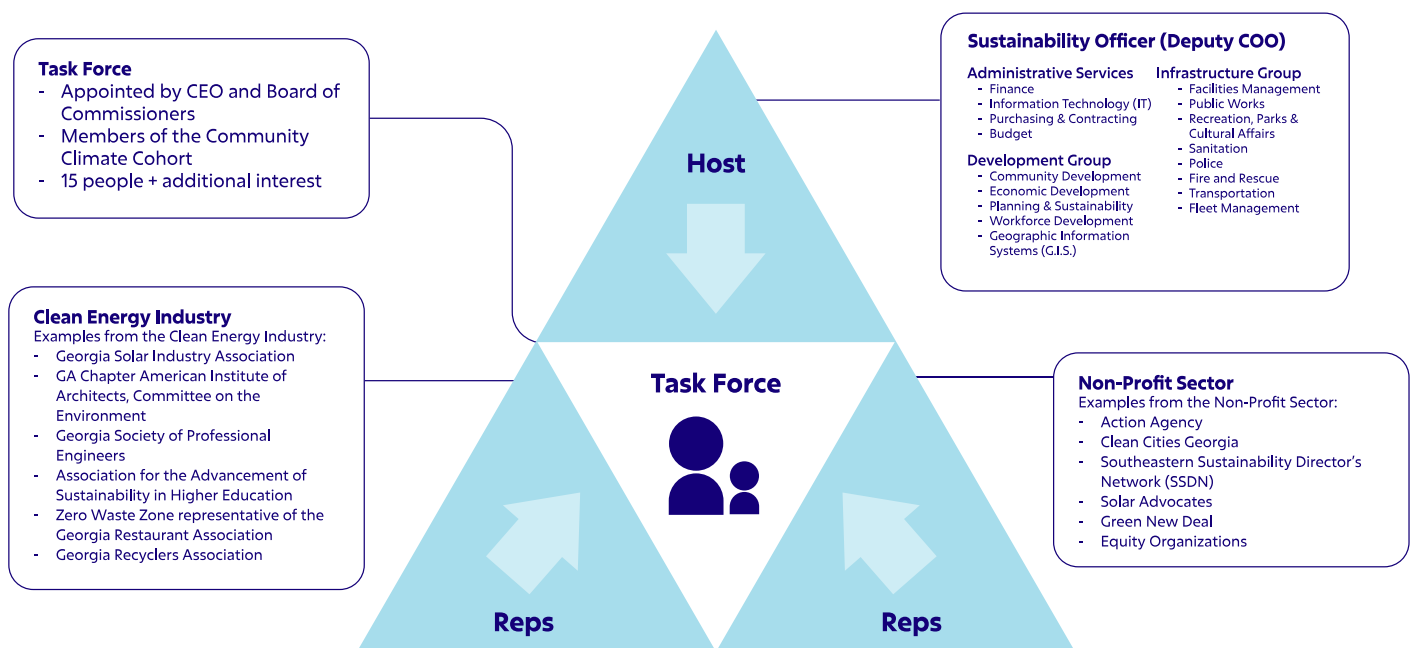
### **THE ENVIRONMENTAL JUSTICE AND SUSTAINABILITY BOARD**

The proposed Environmental Justice and Sustainability Board offers a unique position that ensures the implementation and institutionalization of the Plan and also applies environmental justice support for each implementation item. Therefore, a bicameral structure is proposed wherein The Environmental Justice and Sustainability Board consists of two subcommittees working together to ensure an effective and holistic implementation of the tasks. The subcommittees are the Sustainability Committee and The Environmental Justice Committee.

## THE SUSTAINABILITY COMMITTEE (CLIMATE TASK FORCE)

The Sustainability Committee will collaborate with the Sustainability Officer (Deputy COO), advising, strategizing, and executing the implementation of the Plan.

This committee will hold the Sustainability Office accountable for its role in implementing the Plan within DeKalb County. Additionally, the committee will disseminate community initiatives from the Plan through their networks, providing a voice for DeKalb County residents. It will include representatives from the clean energy industry and the nonprofit sector. Following the language of the original deliverable, this committee will act as the Climate Task Force. Below is an infographic that depicts the Sustainability Committee (Climate Task Force).





## THE ENVIRONMENTAL JUSTICE COMMITTEE

The Environmental Justice Committee will ensure that all DeKalb County projects, including the Plan, consider the needs of disadvantaged communities and communities of color. The committee's mission includes conducting scientific analyses, reviewing case studies, and providing expertise on various issues, including:

- Researching and creating a list of facilities that pose a threat to human health or the environment.
- Reviewing past and ongoing enforcement actions taken by the Environmental Protection Division.
- Analyzing economic factors that may have led to the concentration of hazardous facilities in low-income neighborhoods and predominantly African American communities.
- Reviewing statutes, rules, and policies of DeKalb County and their roles in environmental justice.
- Assessing data and methodologies to identify neighborhoods at high risk from environmental threats.
- Evaluating enforcement statutes and rules related to hazardous facilities.
- Reviewing efforts by state and local agencies to ensure equitable workforce representation of people of color and individuals from low-income families and promoting career opportunities in the environmental field.

- Examining communication methods used by the Environmental Protection Division to reach people of color and low-income families.
- Proposing approaches to incorporate environmental equality and justice considerations in policies, procedures, and legislation.

The Environmental Justice Committee will meet monthly to analyze DeKalb County projects. The committee will comprise 17 voting members and 5 non-voting members, totaling 22 members, with a Sustainability Officer (Deputy COO) serving as the Chairperson.

A two-body structure will be implemented by the Sustainability Officer (Deputy COO), enabling each body to work effectively. By adopting this structure, DeKalb County will be well-positioned to successfully implement the Plan's deliverables and address other persistent environmental justice issues within the County.

TASK 8

# DEVELOPMENT OF GREENHOUSE GAS INVENTORY FOR COUNTY GOVERNMENT FACILITIES AND FLEET, AND COMMUNITY COUNTY-WIDE

Just like other counties, DeKalb County's carbon footprint is extensive. From fostering many small businesses to hosting the most interstate road miles of any Metro Atlanta county and even operating the County's municipal solid waste facilities, DeKalb remains persistent in its pursuit to serve. Understanding all of these important functions that allow the County to operate, it is important to establish a baseline of Greenhouse Gas (GHG) emissions for the County. The Plan takes a closer look into each industry throughout the County and breaks down the current GHG inventory for DeKalb. This level of analysis is crucial for making progress. Identifying the most carbon-intensive sectors can help identify clear pathways to help decarbonize those sectors.

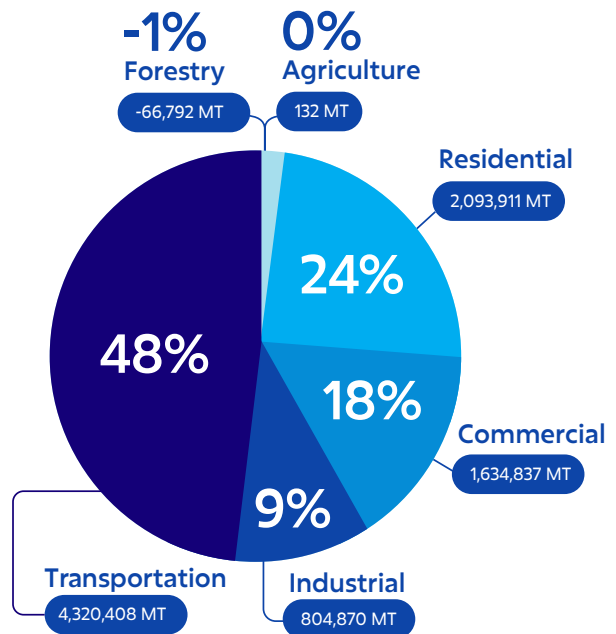
The project team sought to build an inventory from the ground up, requiring:

- Data (electricity purchases, natural gas, vehicle miles traveled, etc)
- A tracking tool (e.g. ICLEI Clearpath)
- Stakeholder buy-in/support (county offices, utilities, etc.)
- The inventory would be developed for both county and community emissions

The following data was missing in order to conduct a full ground-up analysis:

- Clear data from some utilities (especially natural gas)
- Community-wide data (energy use, VMT, etc)
- Other data requested (agriculture, waste management, industrial processes, land use)
- ClearPath/other software

2022 Community-wide Emissions by Sector



Due to the lack of data for a ground-up analysis, the project team moved to a top-down analysis utilizing EPA tools to determine community-wide emissions. In order to determine a breakdown of community-wide emissions vs. DeKalb County operational emissions, the project team utilized the following methodology:

- Gathered data from Drawdown GA's Greenhouse Gas Emissions Tracker
- Calculated statewide emissions from monthly data published by:
  - Department of Energy's Energy Information Administration
  - Department of Transportation
  - Environmental Protection Agency

- Local indicator variables were then used to calculate DeKalb County's share of statewide emissions, including:

- Population and housing characteristics (Census Bureau's American Community Survey)
- Employment info (Census Bureau's Quarterly Workforce Indicators)
- Vehicle miles traveled (Dept. of Transportation)
- Forest coverage (National Land Cover Database)
- Agriculture crop harvests and animal counts (Dept. of Agriculture's Census of Agriculture)





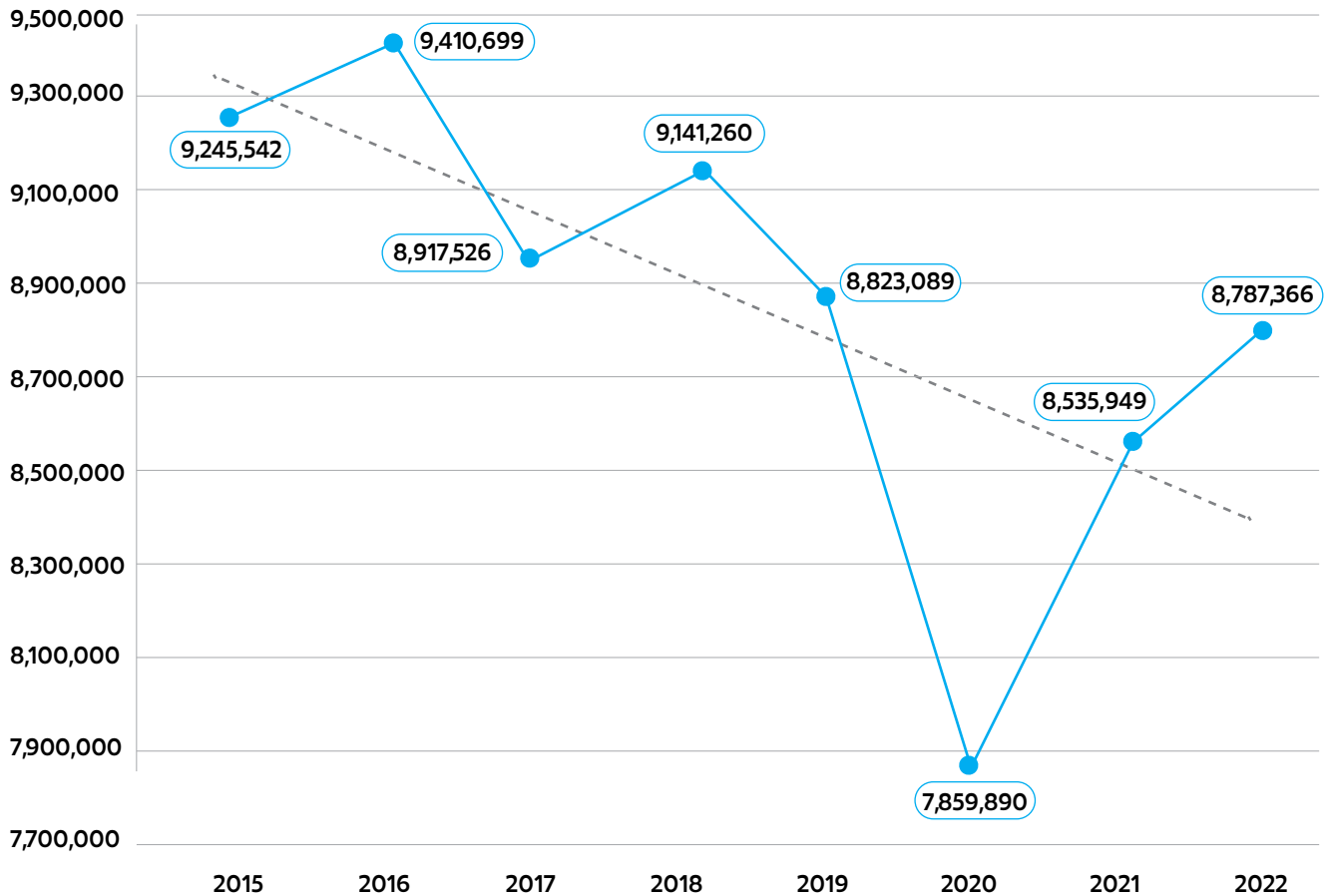
## County Operations Emissions (2022 electricity and fleet)

Source	KWh	MWh	scf*	Gallon	Multiplier	Total GHG Emissions (MT)
GA Power	153,670,203	153,670			896.440lb/MWh	62,474.43
Snapping Shoals	3,015,308	3,015			896.440lb/MWh	1,225.87
Walton	745,775	746			896.440lb/MWh	303.19
CNG			1,464,655.75		.05444 per scf	36.13
Diesel				747,506.06	10.21 per gallon	3,461.24
Unleaded Gas				1,588,752.12	8.78 per gallon	6,326.19
Propane				26,721.49	12.68 per gallon	153.66
<b>Total</b>						<b>73,980.75</b>
<b>% of county transportation/electricity emissions</b>						<b>0.92%</b>

\*scf = Standard Cubic Feet

## 2022 DeKalb Community Emissions in Context

Total Yearly CO2 Emissions (MT)



TASK 9

# DEVELOPMENT OF CLEAR BENCHMARKS AND MILESTONES FOR THE COUNTY DURING THE TRANSITION TO 100% CLEAN AND RENEWABLE ENERGY AND TRANSPORTATION

Based on the DeKalb Climate Action Scenarios, a series of milestones are described below across DeKalb County assets. Additional details can be found in the DeKalb Climate Action Scenarios located in the appendix.



# MILESTONES PRESENT-2030

Sector	Milestones/Actions to be completed
Airport	<ul style="list-style-type: none"> <li>Evaluate and Reduce Non-Essential Airport, Aircraft Energy Use</li> </ul>
Buildings	<ul style="list-style-type: none"> <li>Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings</li> <li>Adopt Enhanced Energy Efficiency Requirements for New County Buildings</li> <li>Retrofit Existing Buildings to High Energy Efficiency Standards</li> <li>Add Dedicated Staff for Facilities Transformation</li> </ul>
Fleets	<ul style="list-style-type: none"> <li>Fleet Efficiency Optimization</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>Initiate a Carbon Mitigation Plan at 5 year update of this plan. Ensure inclusion in Unified Plan update. A Carbon Mitigation plan creates offsets where community emissions: 1) are not on track for elimination and 2) are sourced outside of the community's control.</li> <li>"Amend Chapter 1 of the Unified Plan with New Specific Policies related to the Tree Canopy. Also, Chapter 3. Policy Spotlights</li> </ul>
Municipal Solid Waste	<ul style="list-style-type: none"> <li>Promote Waste Reduction in County Departments and Targeted Community Sectors</li> <li>Extend Recycling Collection and Enhance Waste Reduction Efforts in County Departments and Community MSW</li> <li>Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations (begin)</li> </ul>
Parks & Recreation	<ul style="list-style-type: none"> <li>Expand Green Spaces and Urban Tree Cover in DeKalb County (begin)</li> <li>Improve Park Resilience and Mitigation Potential (begin)</li> </ul>
Streets	<ul style="list-style-type: none"> <li>Incentives for Non-Road Commuters</li> <li>Review DeKalb's Complete Streets Policy for carbon sequestration, EV charging, and micro-mobility opportunities</li> <li>County-Wide Urban Heat Island Effect (UHI) Mitigation Plan</li> <li>Update Streets Design Guidance for UHI Mitigation (begin)</li> </ul>
Waste & Water	<ul style="list-style-type: none"> <li>Promote Water Use Efficiency</li> </ul>



# MILESTONES 2030-2040

Sector	Milestones/Actions to be completed
Airport	<ul style="list-style-type: none"> <li>• Future Planning, Resilience, and Energy Transition Preparation</li> </ul>
Buildings	<ul style="list-style-type: none"> <li>• Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings</li> <li>• Adopt Enhanced Energy Efficiency Requirements for New County Buildings</li> <li>• Retrofit Existing Buildings to High Energy Efficiency Standards</li> </ul>
Fleets	<ul style="list-style-type: none"> <li>• Infrastructure and Operations Expansion</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>• Clean Energy and Microgrid Zoning Incentives</li> </ul>
Municipal Solid Waste	<ul style="list-style-type: none"> <li>• Launch Organic Waste Collection and Composting for All Sanitation Customers</li> <li>• Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects</li> <li>• Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations (complete)</li> </ul>
Parks & Recreation	<ul style="list-style-type: none"> <li>• Expand Green Spaces and Urban Tree Cover in DeKalb County (complete)</li> <li>• Improve Park Resilience and Mitigation Potential (complete)</li> </ul>
Streets	<ul style="list-style-type: none"> <li>• County Active Transportation Master Plan</li> <li>• Pilot Partnership for Use of Non-Road Utility Vehicles</li> <li>• EV Charging Network Master Plan (implementation complete)</li> </ul>
Waste & Water	<ul style="list-style-type: none"> <li>• Monitor and Mitigate Fugitive Methane Emissions</li> <li>• Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)</li> <li>• Electrify and Modernize Equipment</li> </ul>

# MILESTONES 2040-2050

Sector	Milestones/Actions to be completed
Buildings	<ul style="list-style-type: none"> <li>Acquire 100% Renewable Electricity and Ensure New Building Electrification</li> </ul>
Fleets	<ul style="list-style-type: none"> <li>Full Fleet Conversion to Zero-Emission Vehicles</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>Integrate Carbon Mitigation into Unified Plan (implementation complete)</li> </ul>
Municipal Solid Waste	<ul style="list-style-type: none"> <li>Onsite Solar Generation at Seminole Rd. Landfill</li> </ul>
Streets	<ul style="list-style-type: none"> <li>Update Streets Design Guidance for UHI Mitigation (implementation complete)</li> </ul>
Waste & Water	<ul style="list-style-type: none"> <li>Implement the Water and Wastewater Master Plan and Support Capital Improvement Plan</li> <li>Evaluate Sewer and Stormwater System Sufficiency under Climate Change Scenarios</li> </ul>

## TASK 10

# DEVELOPMENT OF A CLEAR PROCESS WHEREBY THE COUNTY COMMISSION WILL RECEIVE UPDATES ON PROGRESS AND TAKE STEPS TO HIT BENCHMARKS

The proposed Sustainability Officer (Deputy COO) position will be responsible for reporting progress on benchmarks. In addition to benchmarks, the Sustainability Officer will provide updates on timelines and next steps as the Plan is implemented.

The Sustainability Officer (Deputy COO) should be independent from other Operations groups so as to provide cross-group benefits often found in sustainability practices. For example, operational savings from facility management provide budgetary benefits for the infrastructure group. Benchmarking, identifying, and tracking energy savings is best executed across groups.

Additionally, the Sustainability Officer (Deputy COO) position, while answerable to the CEO, should avoid direct connections so as to avoid losing momentum during administration changes. Being part of the permanent bureaucracy

is the best path to success in accomplishing the long-term goals of the Plan.

The following framework helps DeKalb County promote the evolution and continuum of institutionalizing sustainability. Additional positions, including Energy Manager, Deputy Sustainability Officers, and a cabinet of department sustainability directors and managers, will constitute the Sustainability Office.

Four functions of a Sustainability Office and four phases of evolution frame this description. Activities range from elected officials, creation of a sustainability office, positions therewith, and funding of the work to developing community support and cultivating public expectations that sustainability initiatives will be sustained and expanded.<sup>29</sup>

## THE FOUR FUNCTIONS OF A SUSTAINABILITY OFFICE

### 1. Planning Government's Sustainability Initiatives

Develop vision, definition, cases, goals for sustainability, and the role of local government. Develop initiatives, plans, and budgets – within departments and across governments. Establish performance metrics, scoreboards, and progress reporting processes. Study other cities' sustainability efforts. Coordinate sustainability planning and goals across departments.

### 2. Developing a Government Culture of Sustainability

Engage employees in thinking and caring about sustainability and trying new behaviors. Conduct internal communications and education to promote a culture of sustainability. Embed sustainability goals and initiatives in employees' position



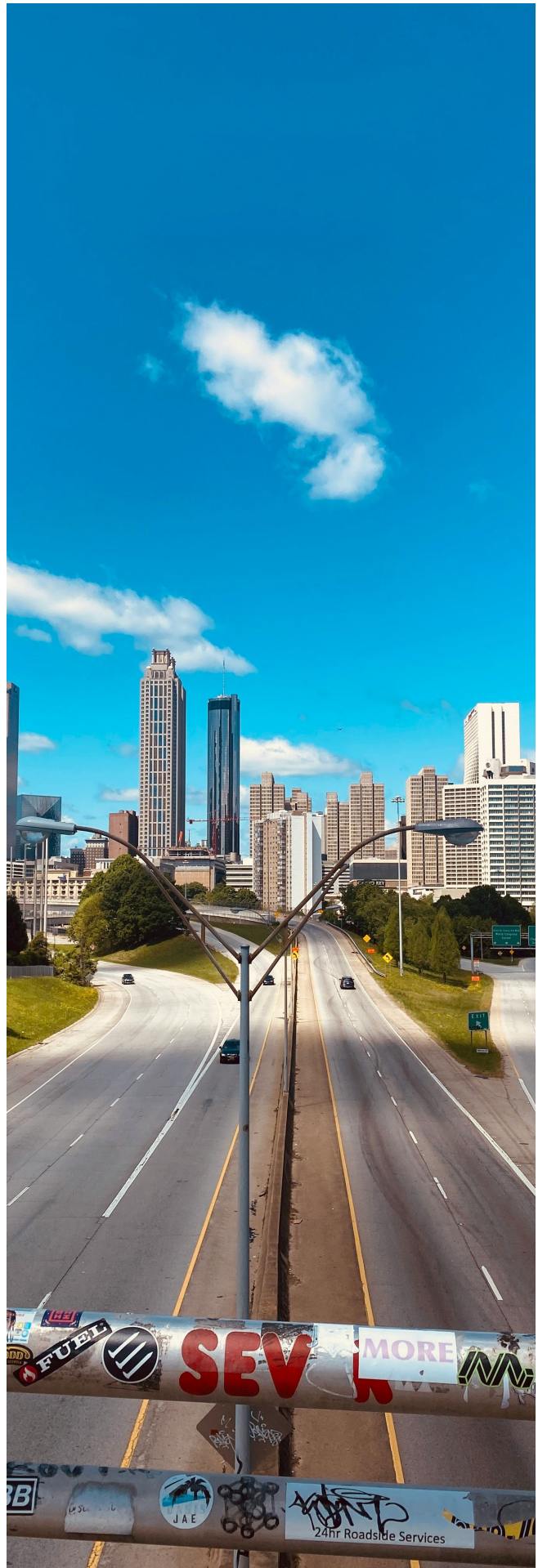
descriptions and performance evaluations.

### **3. Developing Community Support and Action**

Communicate with the public and media about the sustainability vision and initial initiatives. Develop a website(s) with resources for sustainability actions. Partner with civic organizations to undertake community visioning processes and community-based sustainability education. Engage stakeholders and constituencies in developing plans and partnering with other governments on external initiatives. Engage leaders of communities in coordinating and collaborating. Develop a community-wide sustainability scoreboard. Support public outreach/education to increase community awareness of benefits.

### **4. Building Government's Structures for Sustainability**

Create sustainability functions with staff and short-term funding. Build connections with outside experts and peers in other cities. Fundraise to support budget and staffing for sustainability initiative development. Create technical advisory groups. Create incentives (rewards, sanctions) for departments and agencies to achieve goals. Adopt a performance scoreboard for publicizing and monitoring. Create a government-wide sustainability knowledge creation and innovation function. Coordinate among departments to achieve shared goals.



# CLEAN ENERGY ACTIONS

DeKalb County's commitment to 100% clean energy community-wide by 2045 is a critical step toward reducing emissions, improving public health, boosting job creation, and reducing energy bills for all households. Based on the milestones presented in Task 9, DeKalb has the potential to provide 'green' local jobs for hundreds of individuals cumulatively by 2050. The Balanced scenario (located in the appendix) will generate hundreds of millions in net benefits. This includes tens of millions in public health savings and household bill savings. Choosing to shift to 100 percent clean and renewable energy in a short time span is not easy; however, DeKalb County is progressive in regard to climate change mitigation and community development. DeKalb had already made great strides toward achieving its clean and renewable energy goal before its initial decision to adopt this plan, including a region-leading clean fleet and landfill gas capture.

Ascertained from the creation of the Plan, The consultant team identified five Pillars of Progress that serve as core values for DeKalb County. These pillars are the main drivers for change and should be top of mind when implementing the recommended deliverables from the Plan.

The Pillars of Progress are:

1. Invest in Community
2. Sustain Sustainability
3. Manage Energy
4. Lead by Example
5. Data, data, data

## Invest in Community

As described in the DeKalb Today section, DeKalb County has always recognized the significance of its residents. For this reason, DeKalb County has made clean energy commitments to ensure that DeKalb remains a thriving community. DeKalb County also recognizes that it is just as important that its residents are able to make similar clean energy investments within their own homes.

To do this, it is in DeKalb County's best interest to provide funding opportunities to its residents to invest in clean energy improvements. With the recommendation of a Sustainability Officer (Deputy COO) and an Energy Manager, DeKalb County could help finance some of these funding opportunities through energy cost savings. These funds are to help elevate some of the upfront capital costs for residents to invest in clean energy.

Along with energy savings, DeKalb can participate in a myriad of community investment programs to be able to provide more funding opportunities to residents. Below are a few examples with explanations following:

- PAYST™
- PACE
- EV Charging
- Weatherization
- Community Solar
- Solarize
  - PPA
  - Purchases
- Energy Code Optimization

A Pay As You Save (PAYS™) program enables energy efficiency upgrades for utility customers without upfront costs. Customers pay for improvements with energy savings over time through their utility bills, leading to lower energy usage and savings for the customer.

The Property Assessed Clean Energy (PACE) financing model provides funding for energy efficiency and renewable energy projects by allowing property owners to repay the costs with their property tax bills. This mechanism facilitates access to upfront financing and allows repayment over multiple owners.

Another community investment that DeKalb County can make is investing in community electric vehicle (EV) charging. Installing publicly accessible EV charging infrastructure will allow residents who may not have access to an “at-home” charger, an option to charge their vehicle. Also, this can give residents the confidence to purchase an EV because of the available and accessible public charging infrastructure.

DeKalb County can also make investments in weatherization. Educating residents of DeKalb County on the impact of weatherization can save residents hundreds or, in some cases, thousands of dollars annually. These home improvements can make a real difference in overall energy usage and can help the county achieve a GHG reduction in energy consumed.

Investing in solar energy is also essential for DeKalb County residents. Whether it is community solar or utilizing power purchase agreements (PPA), clean energy generation is a critical investment that DeKalb must

make for its residents. Assisting in the delivery of solar to households, Solarize programs have already proven successful. Solarize programs remove marketing costs and capitalize on bulk buying to drive solar installation.

Lastly, adopting more stringent energy code optimization requirements will ensure that new construction within the county will consume less energy, saving DeKalb County residents money.

### **Sustain Sustainability**

DeKalb County understands that the clean energy investments they make today will impact generations of DeKalb residents to come. It is imperative that DeKalb County takes the necessary steps to ensure the longevity of the Plan. By instituting a Sustainability Officer (Deputy COO), DeKalb can take a concrete step to ensure that the Plan remains a top priority. Though there are many responsibilities that the Sustainability Officer is responsible for, the goal of this position is to ensure departmental cross-cutting so that outcomes of the Plan are implemented. Understanding the complexities that come with County government, it is imperative that the outcomes of the Plan are woven within the County government’s operations.

### **Manage Energy**

Not only is investing in clean energy generation important for DeKalb County, but managing energy is critical to ensuring effective consumption of energy. In addition to the Sustainability Officer, an Energy Manager position is also imperative to the County’s sustainability commitments. Managing energy usage across



County facilities will allow the County to better understand its energy usage and identify areas where the County is overconsuming. By doing this, this can lead to large energy savings. This then can be reinvested to provide clean energy incentives for the residents of DeKalb.

### **Lead by Example**

Leading by example is critical to ensuring continued investment by DeKalb County residents. By investing in clean energy pathways now, DeKalb's investments become resources to the community.

Understanding DeKalb County's impact on various stakeholders, the consultant team has outlined initial goals that DeKalb can reasonably achieve in a short horizon to lead by example.

- By 2026, DeKalb County can set up a Sustainability Office staffed by a Sustainability Officer (Deputy COO) and Energy Manager.
- By 2030, DeKalb County can commit to a 30% reduction in energy consumption in the county portfolio of buildings.
- By 2026, DeKalb County can install Electric Vehicle (EV) Chargers in all proposed locations.
- By 2025, DeKalb can set aside sufficient funding to capture IRA funding for a goal of 50% Clean Energy for County Operations.

### **Data, Data, Data**

All the outcomes from the Plan will help lead DeKalb to a clean energy future, but to ensure that the County is progressing, there is a large need for accurate data. In today's world, data drives change. DeKalb

must ensure that all data related to the Plan is accurate, trackable, measurable, and secure. In order to make real and effective change, DeKalb must make investments to strengthen its data.

Energy data tracking tools like ICLEI and Energy Star Portfolio Manager are two tools that DeKalb County should consider to effectively track its data. Regardless of the tool chosen, regular data tracking is essential for effective decision-making.

### **Final Thoughts**

DeKalb County has a real opportunity to forge its path in the global fight against climate change. The decisions that DeKalb County makes today will impact generations to come. It is essential that DeKalb County understands its role in the fight against the climate crisis and takes steps to address it, not only for the County but for the people that call DeKalb "home."

# INDEX

1. DeKalb History Center. (2024, March 12). County history: DeKalb County, Georgia. DeKalb History Center. <https://DeKalbhistory.org/exhibits-DeKalb-history-center-museum/DeKalb-county-history/>
2. Yang, Y. (1970, January 1). Refugee resettlement in the most diverse square mile in America: A study of Clarkston, Georgia. DASH Home. <https://dash.harvard.edu/handle/1/37365058>
3. Bernstein, A. S., Sun, S., Weinberger, K. R., Spangler, K. R., Sheffield, P. E., & Wellenius, G. A. (2022). Warm Season and Emergency Department Visits to U.S. Children’s Hospitals. *Environmental Health Perspectives*, 130(1). <https://doi.org/10.1289/ehp8083>
4. United States Environmental Protection Agency. (2019, May 22). Reduce Urban Heat Island Effect. US EPA. <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>
5. US EPA, O. (2016, July 1). Climate Change Indicators: Heat-Related Illnesses. US EPA. <https://www.epa.gov/climate-indicators/heat-related-illnesses>
6. Office of Energy Efficiency and Renewable Energy. Low-Income Community Energy Solutions. Energy.gov. Retrieved May 24, 2022 from <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>
7. Tourjée, D. (2016, September 6). The Cost of High Utility Bills Is Mental Health. *Vice*. <https://www.vice.com/en/article/8x44p4/the-cost-of-high-utility-bills-is-mental-health>
8. Hicke, J.A., S. Lucatello, L.D., Mortsch, J., Dawson, M., Domínguez Aguilar, C.A.F., Enquist, E.A., Gilmore, D.S., Gutzler, S., Harper, K., Holsman, E.B., Jewett, T.A., Kohler, and K. Miller, 2022: North America. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.
9. Smith, M. (2022). RFP no. 22-500610 For Clean Energy Transportation Transition Plan. <https://www.DeKalbcountyga.gov/sites/default/files/RFP%2022-500610%20-%20Clean%20Energy%20Transportation%20Transition%20Plan%20%28cc%29.pdf>
10. US Census. (n.d.). Explore Census Data. Data.census.gov. [https://data.census.gov/profile/DeKalb\\_County](https://data.census.gov/profile/DeKalb_County)
11. Drehobl, A., & Ross, L. (2016, April 20). Lifting the High Energy Burden in America’s Largest Cities: How Energy Efficiency Can Improve Low-Income and Underserved Communities | ACEEE. *Www.aceee.org*. <http://www.aceee.org/research-report/u1602>
12. Davis, L. (2012, November 26). Renting Inefficiency. *Energy Institute Blog*. <https://energyathaas.wordpress.com/2012/11/26/renting-inefficiency/>
13. Rothstein, R. 2017. *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright Publishing.
14. Matasci, S. (2019, January 4). How solar panel cost and efficiency have changed over time. *Solar News; EnergySage*. <https://news.energysage.com/solar-panel-efficiency-cost-over-time/>

15. Energy STAR Portfolio Manager. (2021). Building Performance Standards: Overview for State and Local Decision Makers [Fact Sheet]. <https://www.epa.gov/>
16. Georgia Power Company. (2020). Renewable and Nonrenewable Tariff Schedule. <https://www.georgiapower.com/content/dam/georgia-power/pdfs/residential-pdfs/residential-rate-plans/RNR-10-1.pdf>
17. Utility franchise fees. Institute for Local Self-Reliance. (2020, June 25). Retrieved June 21, 2022, from <https://ilsr.org/energy/utility-franchise-fees/>
18. City of Decatur. (2022, April 18). Clean Energy Decatur. Clean Energy Decatur. <https://cleanenergydecatur.com/>
19. US Congress. (2021, September 27). Text - H.R.5376 - 117th Congress (2021-2022): Build Back Better Act. [www.congress.gov](https://www.congress.gov). <https://www.congress.gov/bill/117th-congress/house-bill/5376/text>
20. DeKalb County GIS. (n.d.-c). Story Map Tour. [DeKalbgis.maps.arcgis.com](https://DeKalbgis.maps.arcgis.com). Retrieved August 2, 2024, from <https://DeKalbgis.maps.arcgis.com/apps/MapTour/index.html?appid=cc3c5e9bd8f547a4b8b168e16998500e>
21. DeKalb County GIS. (n.d.-b). Site Selector... [Gis.DeKalbcountyga.gov](https://gis.DeKalbcountyga.gov). Retrieved August 2, 2024, from <https://gis.DeKalbcountyga.gov/siteselector/>
22. DeKalb County GIS. (n.d.-a). ArcGIS Web Application. [DeKalbgis.maps.arcgis.com](https://DeKalbgis.maps.arcgis.com). <https://DeKalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584>
23. Georgia Power. (n.d.). By The Numbers. [www.georgiapower.com](https://www.georgiapower.com). <https://www.georgiapower.com/company/about-us/facts-and-financials.html>
24. Developing a new framework for household affordability. (n.d.). <https://www.awwa.org/Portals/0/AWWA/Government/DevelopingNewFrameworkForAffordabilityReport.pdf>
25. Zhao, N. (2023, February 7). Age of Housing Stock by State. [Eyeonhousing.org](https://eyeonhousing.org). <https://eyeonhousing.org/2023/02/age-of-housing-stock-by-state-4/#:~:text=Aging%20Housing%20Stock->
26. DeKalb 2050 Unified Plan. (n.d.). RECENT DEVELOPMENT ACTIVITY. [https://www.DeKalbcountyga.gov/sites/default/files/2022-07/Pages%20from%20DeKalb%20Existing%20Conditions%20and%20Needs%20Assessment\\_Part2.pdf](https://www.DeKalbcountyga.gov/sites/default/files/2022-07/Pages%20from%20DeKalb%20Existing%20Conditions%20and%20Needs%20Assessment_Part2.pdf)
27. United States Environmental Protection Agency. (2023, April 11). Inventory of U.S. Greenhouse Gas Emissions and Sinks | US EPA. US EPA. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>
28. Atlanta Baseline Nationwide Mobility. (2020). Atlanta Mobility Survey. ALG Research
29. USDN. (n.d.-b). [https://www.usdn.org/uploads/cms/documents/usdn\\_innovation\\_report-civic\\_tech-1-2016.pdf](https://www.usdn.org/uploads/cms/documents/usdn_innovation_report-civic_tech-1-2016.pdf)

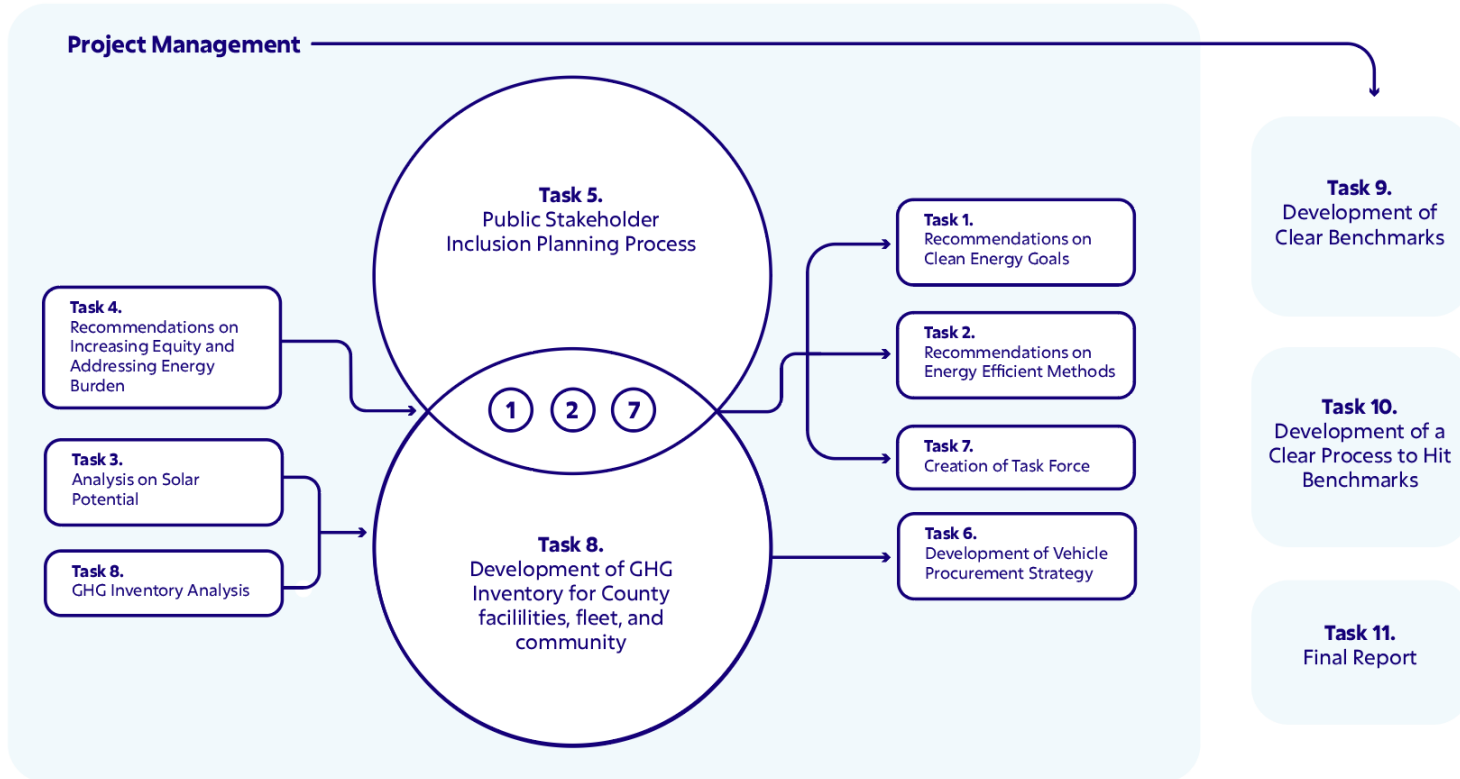


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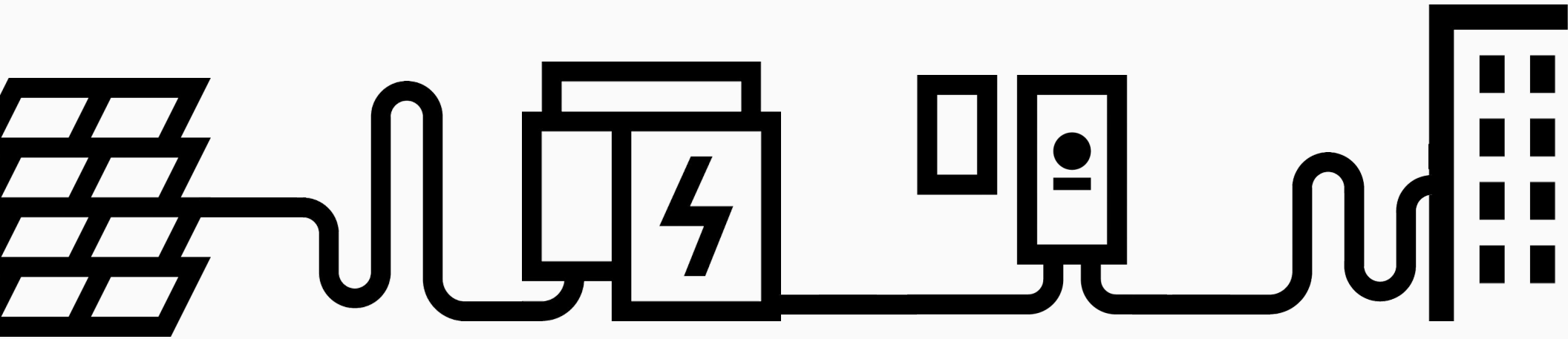
# PROJECT RELATIONSHIP DIAGRAM







**●  
—** Cherry Street  
Energy



**Supporting your transition  
to renewable energy.**





# Selection Criteria



## Structural Feasibility

**Roof Mount**  
Roof age <10 years  
Not obstructed by buildings or trees  
Not planned to be demolished or sold

1

**Ground Mount**  
Level ground  
No construction planned on site  
Close to interconnection point  
*\*We will need further guidance with all the sites chosen that roof age information is up to date as other sites may qualify*

## Financial Feasibility

Appropriate utility rate for solar  
Energy use pattern matches solar production.  
*\*needs further assessment/access to information*

2

## Other Considerations

Political considerations  
Marketing and engagement potential

3

Dekalb's Goal

# 100% Clean Energy Plan

- ☀️ 50% Renewable Energy By 2025 - County Wide
- ☀️ 100% Renewable Energy By 2035 - County Wide
- ☀️ 100% Renewable Energy By 2045 - Community Wide



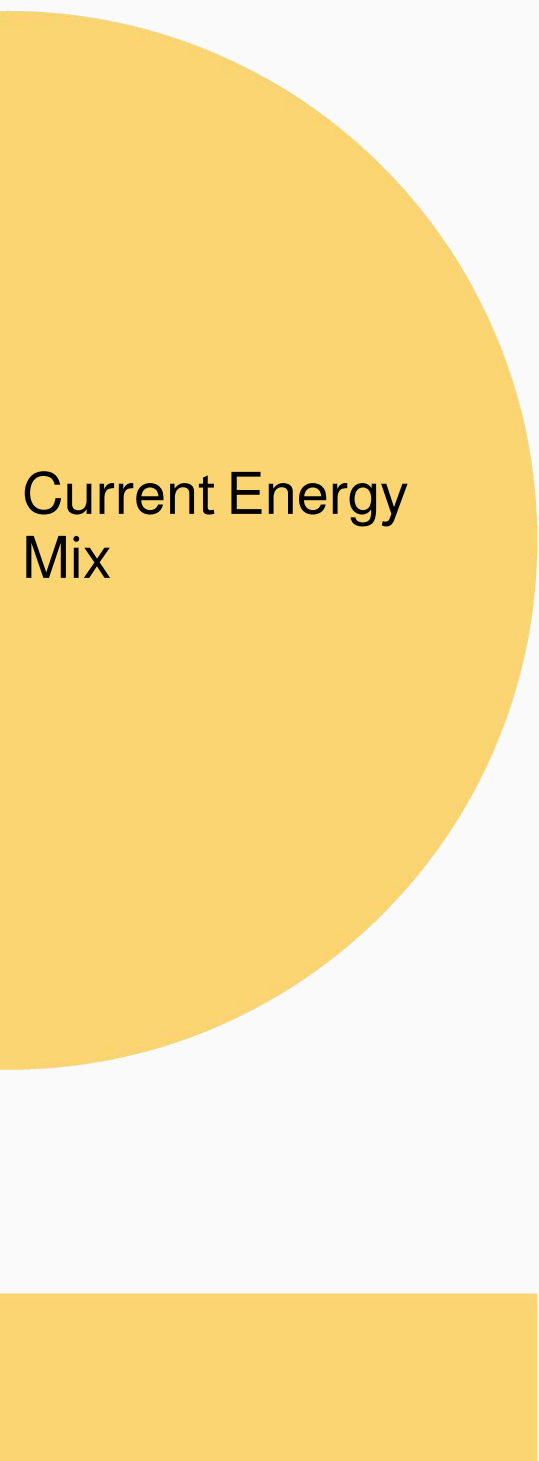
# Breaking down energy use.

Dekalb County Government's energy usage is a mixture of gas, oil, nuclear, coal, and renewable sources. Those sources account for 9% of the mix.

	MWs	% Renewable Energy Mix
<b>Current Renewable Energy Mix</b>	10.45	9%
<b>50% County Wide by 2025</b>	58.04	50%
<b>100% County Wide by 2035</b>	116.09	100%



*This information is sourced from the energy portfolio mix from [Georgia Powers Facts & Figures](#) as a representative sample of the energy make-up for Dekalb. More information will be needed from Dekalb regarding existing on-site solar generation through Dekalb County government and list of sites not on the GPC energy infrastructure.*



Current Energy Mix

# Government-wide power usage (2019)

County Department	Total (kWhs)
Administrative	21,544,769
DCG	34,908,798
Fire Stations	8,985,944
Parks	3,284,031
Airport	966,676
Police	19,650,002
Sanitation	1,726,600
Senior Centers	2,355,631
Watersheds	74,900,800
<b>Total</b>	<b>168,323,251</b>

Energy  
Consumption

# Dekalb County's total solar power capacity.

Cherry Street's analysis has determined that Dekalb County has an incredible opportunity to meet its renewable energy goal through incorporating solar power.

The county can generate nearly 17,000 kW (DC) of on-site, clean energy through solar power.

This can amount to 15% of the overall renewable energy needed to meet the 100% clean energy goal.

Addressable  
Capacity

# Potential Sites

Site Locations	Solar Capacity (kW DC)	Site Locations	Solar Capacity (kW DC)
Polebridge WWT	6920	Sanitation Central Admin	232
Scott Candler Filter Plant	2860	Workforce Development	231
Court House	940	Watershed Management	220
Tax Commissioner (North)	760	Lou Walker Senior Center	214
Animal Services	605	T.O. Vinson Health Center	165
Sheriff's Department	548	Avis G. Williams Library	137
Tax Commissioner - (South)	433	East Dekalb Health Center	130
South Precinct	360	Public Library Processing	125
178 Sams Street	299	Redan Recreation Center	125
Dunwoody Library	238	Treasury & Accounting	121



*These figures assumes a Hanwha, Q.Peak Duo XL-G10.3/BFG 475W panel is used for construction.*



# Potential Sites Cont.

Site Locations	Solar Capacity (kW DC)	Site Locations	Solar Capacity (kW DC)
Tucker-Reid H. Cofer Library	102	Dekalb-Atlanta Senior Center	61
Bruce Street Senior Center	95	Medical Examiner	61
North Dekalb Health Center	94	Mason Mill	54
North Dekalb Senior Center	87	Tucker Precinct	48
Salem-Panola Library	86	Tax Commissioners - North Office	45
Exchange Recreation Center	84	Central Dekalb Senior Center	38
Hairston Crossing Library	79	Roads & Drainage	38
East Precinct	73	NH Scott Recreation Center	37
Gresham Recreation Center	68	Chamblee Library	35
South Dekalb Senior Center	63		

*These figures assumes a Hanwha, Q.Peak Duo XL-G10.3/BFG 475W panel is used for construction.*



# Thank you!

Keep On Shining™



# Sources

- Dekalb GA County Facilities Map:
  - <https://dekalbgis.maps.arcgis.com/apps/MapTour/index.html?appid=cc3c5e9bd8f547a4b8b168e16998500e>
- Select Dekalb Site Selector
  - <https://gis.dekalbcountyga.gov/siteselector/>
- Dekalb County Parcel Viewer
  - <https://dekalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584>



SEQ	ACCT-NO	ACCT-ID	NAME-1	DOING BUSINESS AS	ADDRESS LINE 1	ADDRESS LINE 2	ADDRESS LINE 3	ADDRESS LINE 4	BILL-DATE	PREV. BAL.	CURRENT DUE	TOT-AMT DUE	RATE	METER #	SERV. FROM	SERVICE TO	PREV. READING	CURRENT READING	METER CONSTANT	KWH	ACTUAL KW	BILL KW
			<b>Watershed - Blue</b>	SUMMARY BILL																		
			<b>Sanitation - Yellow</b>	GEORGIA POWER COMPANY																		
			<b>Jail - Grey</b>	SUMMARY BILL	ELECTRONIC SPREADSHEET																	
			<b>Other - White</b>																			
			<b>Police Headquarters &amp; Public Safety/Courts - Light Blue</b>																			
SB ACCT-NO			<b>Airport - Accent Blue</b>	SB ACCOUNT NAME	INVOICE DATE	DUE DATE	TOTAL BILL															
3667946002			<b>Parks &amp; Recreation - Green</b>	DEKALB COUNTY GOVERNMENT	1/16/2019	1/31/2019	\$ 1,410,631.86															
			<b>Fire Station &amp; Headquarters - Pink</b>	1300 COMMERCE DR																		
			<b>Roads &amp; Drainage/Traffic - Gold</b>																			
			<b>Senior Center - Dark Blue</b>	ACTNG SVCS/ROBIN MCKNIGHT																		
			<b>Health Center - Light Green</b>																			
			<b>Administration - Orange</b>	DECATUR GA 30030																		
			<b>FLEET MAINTENANCE - Purple</b>																			
			<b>Watershed - Blue</b>																			
11	4051248003		<b>Watershed #5</b>	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 5	5900 PEACHTREE INDUSTRIAL BLVD		CHAMBLEE GA 30341	1/10/2019	0	\$ 225.62	\$ 225.62	GS-C		12/8/2018	1/10/2019	49314	50586	1	1272	0	0
229	3914758001		ELEV TANK	DEKALB COUNTY GOVERNMENT		1127 W HOWARD AVE UNIT 8021		DECATUR GA 30030	1/16/2019	0	\$ 23.03	\$ 23.03	GS-I	2817458	12/12/2018	1/14/2019	3638	3651	1	13	0	0
94	0198618030		PRESSURE MONITO	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR	3669 MORELAND AVE		DECATUR GA 30032	1/1/2019	0	\$ 73.53	\$ 73.53	GS-I		12/4/2018	1/4/2019	53200	53550	1	350	0	0
307	1277784005		BOOSTER STATION	DEKALB COUNTY GOVERNMENT	BOOSTER STATION	3742 MIDLAND RD		DECATUR GA 30032	12/28/2018	0	\$ 1,767.85	\$ 1,767.85	PLM-H	3118630	11/27/2018	12/27/2018	49857	50335	40	11120	84	79
478	3225745007		ELEVATED TANK	DEKALB COUNTY GOVERNMENT	ELEVATED TANK	3250 COVINGTON HWY	UNIT 8021	DECATUR GA 30032	12/17/2018	0	\$ 176.37	\$ 176.37	GS-C	5770732	11/15/2018	12/17/2018	42255	43248	1	993	0	0
497	3327756021		<b>DeKalb CO. Watershed Mgt. CIP (Lease)</b>	DEKALB COUNTY GOVERNMENT		4572 MEMORIAL DR		DECATUR GA 30032	12/18/2018	0	\$ 2,798.99	\$ 2,798.99	PLM-C	3296546	11/15/2018	12/17/2018	3949	4064	160	18400	51	91
30	6359840016		WATER TOWER	DEKALB COUNTY GOVERNMENT	FIRE STATION 26	2522 MCAFEE RD UNIT 8021		DECATUR GA 30032	12/21/2018	0	\$ 113.86	\$ 113.86	GS-I	4027665	11/21/2018	12/21/2018	61002	61612	1	610	0	0
213	7193776007		ELEVATED TANK	DEKALB COUNTY GOVERNMENT	ELEVATED TANK	1901 MASON MILL RD	UNIT 8021	DECATUR GA 30033	1/3/2019	0	\$ 53.85	\$ 53.85	GS-I	5732352	12/3/2018	1/3/2019	56780	57004	1	224	0	0
259	0003404000		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4124 FLAKES MILL RD		DECATUR GA 30034	12/28/2018	0	\$ 8.97	\$ 8.97	OL GOVT		11/28/2018	12/28/2018						
260	0003408006		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4124 FLAKES MILL RD	UNIT MAIN	DECATUR GA 30034	12/28/2018	0	\$ 93,634.70	\$ 93,634.70	RTDPLLI	E82686	11/28/2018	12/27/2018	0	0	1	1734427	2995	1000
446	2966836002		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	3537 WESLEY CHAPEL RD		DECATUR GA 30034	1/11/2019	0	\$ 2,054.20	\$ 2,054.20	TOUGSDI	3536925	12/10/2018	1/10/2019	19417	19430	160	2080	259	259
78	0463272013		PRESSURE MON 10	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 10	5400 COVINGTON HWY		DECATUR GA 30035	1/2/2019	0	\$ 73.71	\$ 73.71	GS-I		12/7/2018	1/9/2019	49700	50050	1	350	0	0
171	0003390403		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		2746 LAURELWOOD RD; LIGHTING		DORAVILLE GA 30340	12/28/2018	0	\$ 1,035.75	\$ 1,035.75	OL GOVT		11/28/2018	12/28/2018						
251	5538487003		PRESS MON 15	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 15	3588 OAKCLIFF RD		DORAVILLE GA 30340	1/9/2019	0	\$ 370.32	\$ 370.32	GS-C		12/7/2018	1/9/2019	44777	46049	1	1272	0	0
256	0003382401		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4830 WINTERS CHAPEL RD		DORAVILLE GA 30360	1/2/2019	0	\$ 179,776.89	\$ 179,776.89	RTDPMTI	E86473	12/1/2018	12/31/2018	0	0	1	3046977	5082	4576
258	0202907033		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4826 WINTERS CHAP RD		DORAVILLE GA 30360	1/10/2019	0	\$ 23.09	\$ 23.09	GS-I	3261700	12/6/2018	1/9/2019	36141	36158	1	17	0	0
300	1851211054		LIGHTING	DEKALB COUNTY GOVERNMENT	LIGHTING	4901 WINTERS CHAPEL RD		DORAVILLE GA 30360	12/28/2018	0	\$ 174.36	\$ 174.36	OL GOVT		11/28/2018	12/28/2018						
338	2746237018		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		0 LAURELWOOD RD		DORAVILLE GA 30360	12/28/2018	0	\$ 16.33	\$ 16.33	OL GOVT		11/28/2018	12/28/2018						
343	8555776002		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	0 WINTERS CHAPEL UNIT 8021		DORAVILLE GA 30360	1/10/2019	0	\$ 251.86	\$ 251.86	GS-I		12/8/2018	1/10/2019	67923	69983	1	1460	0	0
345	9327806001		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4830 WINTERS CHAPEL RD		DORAVILLE GA 30360	1/3/2019	0	\$ 27.39	\$ 27.39	OLUNR		12/3/2018	1/3/2019						
12	0311411006		PRESSURE MONITO	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR	8200 MALL PKWY		LITHONIA GA 30038	12/17/2018	0	\$ 73.37	\$ 73.37	GS-I		11/15/2018	12/17/2018	53072	53422	1	350	0	0
28	0525597022		PRESSURE MONITO	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR	3316 SNAPFINGER RD		LITHONIA GA 30038	1/7/2019	0	\$ 73.63	\$ 73.63	GS-I		12/5/2018	1/7/2019	53200	53550	1	350	0	0
62	2703461010		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	4674 BRANDI BAY		LITHONIA GA 30038	1/7/2019	0	\$ 380.43	\$ 380.43	TOU-MBI	3303639	12/5/2018	1/7/2019	81667	85191	1	3524	15	0
114	5303479035		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	5396 BEECHWOOD FOREST DR		LITHONIA GA 30038	12/28/2018	0	\$ 393.99	\$ 393.99	PLS-I	3099207	11/27/2018	12/27/2018	8781	11003	1	2222	7	19
118	6923814006		PRESSURE MON #6	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 6	3800 BIG MILLER GROVE WAY		LITHONIA GA 30038	1/2/2019	0	\$ 73.45	\$ 73.45	GS-I		11/30/2018	1/2/2019	53200	53550	1	350	0	0
133	0003402104		<b>DeKalb County Water &amp; Sewer Plant</b>	DEKALB COUNTY GOVERNMENT		4664 FLAT BRIDGE RD		LITHONIA GA 30058	1/2/2019	0	\$ 54,302.42	\$ 54,302.42	RTDPLLI	E47286	12/1/2018	12/31/2018	0	0	1	1001452	1801	637
137	0003405203		LIGHTING	DEKALB COUNTY GOVERNMENT	LIGHTING	4664 FLAT BRIDGE RD		LITHONIA GA 30058	12/28/2018	0	\$ 51.38	\$ 51.38	OL GOVT		11/28/2018	12/28/2018						
149	0869607018		STORAGE TANK	DEKALB COUNTY GOVERNMENT	STORAGE TANK	6670 PARKWAY DR		LITHONIA GA 30058	1/11/2019	0	\$ 5,586.49	\$ 5,586.49	PLM-I	3119772	12/9/2018	1/11/2019	37628	38174	80	43680	214	176
187	2607737031		PUMP	DEKALB COUNTY GOVERNMENT	PUMP	6203 WINDY RIDGE TRL		LITHONIA GA 30058	1/16/2019	0	\$ 199.98	\$ 199.98	GS-I	3174182	12/13/2018	1/15/2019	94481	95635	1	1154	0	0
219	3204321007		PRESS MON #2	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 2	2826 EVANS MILL RD		LITHONIA GA 30058	12/17/2018	0	\$ 74.71	\$ 74.71	GS-I		11/15/2018	12/17/2018	48650	49000	1	350	0	0
220	3204892010		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	2475 OAKLEAF CIR		LITHONIA GA 30058	1/15/2019	0	\$ 151.99	\$ 151.99	GS-I	3174698	12/12/2018	1/14/2019	42890	43721	1	831	0	0
252	4670825022		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	1300 GREEN RIDGE AVE		LITHONIA GA 30058	1/11/2019	0	\$ 220.01	\$ 220.01	GS-I	3123697	12/9/2018	1/10/2019	6095	7380	1	1285	0	0
257	4834799007		LCC 2 LIFT	DEKALB COUNTY GOVERNMENT	LCC 2 LIFT	1485 ROCK CHAPEL RD		LITHONIA GA 30058	1/16/2019	0	\$ 6,113.66	\$ 6,113.66	TOUGSDC	3194918	12/13/2018	1/16/2019	55459	56108	120	77880	192	192
308	6451799005		LCC 3 LIFT	DEKALB COUNTY GOVERNMENT	LCC 3 LIFT	7120 MADDOX DR		LITHONIA GA 30058	1/16/2019	0	\$ 6,843.71	\$ 6,843.71	TOUGSDI	3119943	12/13/2018	1/16/2019	55429	56159	120	87600	210	210
421	7190843001		COMM TOWER	DEKALB COUNTY GOVERNMENT	LCC1 LIFT	6112 MYSTERY VALLEY LN		LITHONIA GA 30058	1/11/2019	0	\$ 407.73	\$ 407.73	PLS-C	1886108	12/9/2018	1/10/2019	75364	79108	1	3744	6	6
428	8320797008		LCC1 LIFT	DEKALB COUNTY GOVERNMENT	LCC1 LIFT	7364 DRAKE AVE		LITHONIA GA 30058	1/16/2019	0	\$ 5,666.63	\$ 5,666.63	TOUGSDI	3319867	12/14/2018	1/16/2019	7647	8220	120	68760	216	216
487	0054868003		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	6826 MEMORIAL DR		STONE MOUNTAIN GA 30083	12/19/2018	0	\$ 723.34	\$ 723.34	PLS-I	3139053	11/18/2018	12/18/2018	8953	9059	40	4240	28	26
105	0861520032		PRESSURE MON 7	DEKALB COUNTY GOVERNMENT	PRESSURE MONITOR 7	405 N HAINSTON RD		STONE MOUNTAIN GA 30083	12/19/2018	0	\$ 74.64	\$ 74.64	GS-C		11/19/2018	12/19/2018	49350	49700	1	350	0	0
244	1261775018		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	1391 JULIETTE RD		STONE MOUNTAIN GA 30083	12/21/2018	0	\$ 231.19	\$ 231.19	GS-I	3124086	11/20/2018	12/20/2018	87517	88881	1	1364	0	0
293	1779049027		PUMP STATION	DEKALB COUNTY GOVERNMENT	PUMP STATION	1664 LEWIS WAY		STONE MOUNTAIN GA 30083	12													



22	6183254011	Sanitation	DEKALB COUNTY GOVERNMENT		3720 LEROY SCOTT DR			DECATUR	GA	30032	12/19/2018	0	\$	5,490.00	\$	5,490.00	PLM-C	3171004	11/18/2018	12/18/2018	36783	38342	40	62360	117	133	
271	0117525002	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR TRLR 4			DECATUR	GA	30034	1/3/2019	0	\$	485.29	\$	485.29	PLS-C	5515458	12/2/2018	1/2/2019	41864	45689	1	3825	18	12	
274	0291734042	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR TRLR 2			DECATUR	GA	30034	1/3/2019	0	\$	568.95	\$	568.95	PLS-C	2984305	12/2/2018	1/3/2019	49318	53521	1	4203	19	13	
285	0439984504	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR TRLR 3			DECATUR	GA	30034	1/3/2019	0	\$	474.75	\$	474.75	PLS-C	2985722	12/2/2018	1/2/2019	57189	60770	1	3581	17	12	
306	0687213038	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR TRLR 5			DECATUR	GA	30034	1/3/2019	0	\$	532.38	\$	532.38	PLS-C	3157133	12/2/2018	1/2/2019	43103	47700	1	4597	19	11	
353	0895522031	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR TRLR 1			DECATUR	GA	30034	1/3/2019	0	\$	627.85	\$	627.85	GS-C	1801068	12/3/2018	1/2/2019	51222	54771	1	3549	0	0	
431	2643683141	Street Lights	DEKALB COUNTY GOVERNMENT		3714 RAINBOW DR			DECATUR	GA	30034	1/3/2019	0	\$	23.21	\$	23.21	GS-C	7522077	12/3/2018	1/3/2019	4566	4589	1	23	0	0	
48	6087697010	Sanitation	DEKALB COUNTY GOVERNMENT		1755 FAIRLAKE DR			DECATUR	GA	30034	1/3/2019	0	\$	696.83	\$	696.83	OLUNR	3237134	12/3/2018	1/2/2019	33176	37155	1	3979	12	13	
135	0003404608	Sanitation	DEKALB COUNTY GOVERNMENT		1750 ROGERS LAKE RD			LITHONIA	GA	30058	12/28/2018	0	\$	108.15	\$	108.15	OL GOVT		11/28/2018	12/28/2018							
180	0993234021	Sanitation	DEKALB COUNTY GOVERNMENT		1750 ROGERS LAKE RD			LITHONIA	GA	30058	12/18/2018	0	\$	23.09	\$	23.09	GS-C		11/16/2018	12/18/2018	1126	1146	1	20	0	0	
184	1359177013	Sanitation	DEKALB COUNTY GOVERNMENT		1750 ROGERS LAKE RD			LITHONIA	GA	30058	12/18/2018	0	\$	23.09	\$	23.09	GS-C		11/16/2018	12/18/2018	1126	1146	1	20	0	0	
303	8720799000	BUFORD SAN	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY UNIT 8110			CHAMBLEE	GA	30341	1/7/2019	0	\$	143.45	\$	143.45	GS-C	1671738	12/4/2018	1/6/2019	63539	64305	1	766	0	0	
317	8741799000	BUFORD SAN	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY UNIT 8110			CHAMBLEE	GA	30341	1/7/2019	0	\$	1162.65	\$	1162.65	TOU-MB	3515597	12/4/2018	1/6/2019	4284	4343	240	14160	62	0	
443	8762799000	BUFORD SAN	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY UNIT 8110			CHAMBLEE	GA	30341	1/8/2019	0	\$	23.17	\$	23.17	GS-C	1671737	12/4/2018	1/6/2019	9577	9583	1	6	0	0	
64	0003407501	Jail - Grey	DEKALB COUNTY GOVERNMENT	JAIL TOTALIZED ACCT	4425 MEMORIAL DR			DECATUR	GA	30032	12/28/2018	0	\$	90,200.68	\$	90,200.68	RTDPLLC	VY2550	11/28/2018	12/27/2018	0	0	0	1235091	2106	1668	
		Other - White																									
		ACCT-NO	ACCT-ID	NAME-1	DOING BUSINESS AS	ADDRESS LINE 1	ADDRESS LINE 2	ADDRESS LINE 3	ADDRESS LINE 4	BILL-DATE	PREV. BAL.	CURRENT DUE	TOT-AMT DUE	RATE	METER #	SEW. FROM	SERVICE TO	PREV. READING	CURRENT READING	METER CONSTANT	KWH	ACTUAL KW	BILL KW				
5EQ	0111641037	PEDLIGHTS (Church's Chicken	DEKALB COUNTY GOVERNMENT		PEDLIGHTS	4995 BUFORD HWY			CHAMBLEE	GA	30341	1/7/2019	0	\$	623.37	\$	623.37	PLS-C	1671476	12/4/2018	1/6/2019	44897	51144	1	6347	13	13
372	1853992034	Shopping Center	DEKALB COUNTY GOVERNMENT		Shopping Center	4795 BUFORD HWY			CHAMBLEE	GA	30341	1/8/2019	0	\$	634.36	\$	634.36	PLS-C	1670663	12/5/2018	1/7/2019	17351	23763	1	6512	14	13
164	6999782013	SVC SIGN@FRONT ?	DEKALB COUNTY GOVERNMENT	SVC SIGN @ FRONT ENTRANCE	3915 CLAIRMONT RD UNIT 8210				CHAMBLEE	GA	30341	1/4/2019	0	\$	82.27	\$	82.27	GS-C	1671652	12/3/2018	1/3/2019	97706	98094	1	388	0	0
466	9668781001	PERIMETER L S	DEKALB COUNTY GOVERNMENT		4182 DEACON LN				CHAMBLEE	GA	30341	1/9/2019	0	\$	163.32	\$	163.32	GS-C	3202174	12/6/2018	1/9/2019	25848	26753	1	905	0	0
42	4718785001	Forty Oaks Nature Preserve	DEKALB COUNTY GOVERNMENT		3790 MARKET ST UNIT 6118				CLARKSTON	GA	30021	12/19/2018	0	\$	26.83	\$	26.83	RES	2980033	11/19/2018	12/19/2018	59954	60094	1	140	0	0
43	6541408008	RESIDENTIAL	DEKALB COUNTY GOVERNMENT		1089 CASA DR UNIT 10				CLARKSTON	GA	30021	12/18/2018	0	\$	23.66	\$	23.66	GS-C	5680143	11/16/2018	12/17/2018	2931	2956	1	25	0	0
60	0003369300	Street Lights	DEKALB COUNTY GOVERNMENT		0 RES ST LT TUCKER				DECATUR	GA	30030	12/28/2018	0	\$	-	\$	-	OL GOVT		11/28/2018	12/28/2018						
100	0003404206	Street Lights	DEKALB COUNTY GOVERNMENT		0 RES ST LITS S DKL				DECATUR	GA	30030	12/28/2018	0	\$	-	\$	-	OL GOVT		11/28/2018	12/28/2018						
110	0003359108	Street Lights	DEKALB COUNTY GOVERNMENT		0 HWYS AND INTERSECT				DECATUR	GA	30030	12/28/2018	0	\$	6,222.36	\$	6,222.36	OL GOVT		11/28/2018	12/28/2018						
112	0003359206	Traffic Signal	DEKALB COUNTY GOVERNMENT		0 TRAFFIC SIG DECAT				DECATUR	GA	30030	12/28/2018	0	\$	860.36	\$	860.36	TC		11/28/2018	12/28/2018						
132	0003359402	Street Lights	DEKALB COUNTY GOVERNMENT		0 DEKALB CO PARKS				DECATUR	GA	30030	12/28/2018	0	\$	2,468.98	\$	2,468.98	OL GOVT		11/28/2018	12/28/2018						
166	0003359500	Street Lights	DEKALB COUNTY GOVERNMENT		0 RES ST LT DECATUR				DECATUR	GA	30030	12/28/2018	0	\$	422.01	\$	422.01	OL GOVT		11/28/2018	12/28/2018						
202	0003361500	Street Lights	DEKALB COUNTY GOVERNMENT		0 COURTHOUSE SQ				DECATUR	GA	30030	12/28/2018	0	\$	12.21	\$	12.21	OL GOVT		11/28/2018	12/28/2018						
263	0003364707	Street Lights	DEKALB COUNTY GOVERNMENT		0 I 20 LIGHTS				DECATUR	GA	30030	12/28/2018	0	\$	10,860.76	\$	10,860.76	OL GOVT		11/28/2018	12/28/2018						
272	0003369202	Street Lights	DEKALB COUNTY GOVERNMENT		0 HW INTERSECT TUCKE				DECATUR	GA	30030	12/28/2018	0	\$	730.87	\$	730.87	OL GOVT		11/28/2018	12/28/2018						
313	0003389802	Street Lights	DEKALB COUNTY GOVERNMENT		0 PKS AND REC N PERM				DECATUR	GA	30030	12/28/2018	0	\$	3,583.00	\$	3,583.00	OL GOVT		11/28/2018	12/28/2018						
326	0003404304	Street Lights	DEKALB COUNTY GOVERNMENT		0 ENG ONLY S DKL				DECATUR	GA	30030	12/28/2018	0	\$	751.69	\$	751.69	OL GOVT		11/28/2018	12/28/2018						
334	0003404402	Street Lights	DEKALB COUNTY GOVERNMENT		0 HWY AND INSEC S DKL				DECATUR	GA	30030	12/28/2018	0	\$	15,924.39	\$	15,924.39	OL GOVT		11/28/2018	12/28/2018						
385	0003404706	Street Lights	DEKALB COUNTY GOVERNMENT		0 PKS AND REC S DKL				DECATUR	GA	30030	12/28/2018	0	\$	6,914.34	\$	6,914.34	OL GOVT		11/28/2018	12/28/2018						
422	0003411407	Street Lights	DEKALB COUNTY GOVERNMENT		0 ENERGY ONLY TUCKE				DECATUR	GA	30030	12/28/2018	0	\$	638.95	\$	638.95	OL GOVT		11/28/2018	12/28/2018						
477	0003411907	Street Lights	DEKALB COUNTY GOVERNMENT		0 RES STLTS ST MTN				DECATUR	GA	30030	12/28/2018	0	\$	667.38	\$	667.38	OL GOVT		11/28/2018	12/28/2018						
493	0291478030	RESIDENTIAL	DEKALB COUNTY GOVERNMENT	Medlock Place	2466 VIVIAN CIR				DECATUR	GA	30030	1/11/2019	0	\$	61.29	\$	61.29	GS-I	4013960	11/28/2018	1/11/2019	55758	56028	1	270	0	0
498	0507848222	Street Lights	DEKALB COUNTY GOVERNMENT		0 ROADWAY LIGHTING DEPT H&I				DECATUR	GA	30030	12/28/2018	0	\$	19,897.71	\$	19,897.71	RLG		11/28/2018	12/28/2018						
398	0525899049	Street Lights	DEKALB COUNTY GOVERNMENT		0 ROADWAY LIGHTING DEPT SLD				DECATUR	GA	30030	12/28/2018	0	\$	353,633.43	\$	353,633.43	RLG		11/28/2018	12/28/2018						
496	4183183033	Street Lights	DEKALB COUNTY GOVERNMENT		503 DEKALB INDUSTRIAL WAY				DECATUR	GA	30030	1/14/2019	0	\$	23.31	\$	23.31	TCM	7334631	12/11/2018	1/13/2019	5158	5303	1	145	0	0
131	5171282022	RESIDENTIAL	DEKALB COUNTY GOVERNMENT		2193 SCOTT BLVD				DECATUR	GA	30030	12/27/2018	0	\$	31.62	\$	31.62	GS-C		11/27/2018	12/27/2018	15600	15678	1	78	0	0
245	9544746017	RESIDENTIAL	DEKALB COUNTY GOVERNMENT		330 CHURCH ST UPPER				DECATUR	GA	30030	1/10/2019	0	\$	1,315.07	\$	1,315.07	PLM-C	3126114	12/8/2018	1/9/2019	16990	17087	80	7760	38	52
24	0003359304	Street Lights	DEKALB COUNTY GOVERNMENT		0 ENERGY ONLY DECAT				DECATUR	GA	30031	12/28/2018	0	\$	2,732.68	\$	2,732.68	OL GOVT		11/28/2018	12/28/2018						
26	2019709303	RESIDENTIAL	DEKALB COUNTY GOVERNMENT		3511 SHERRYDALE LN UNIT				DECATUR	GA	30032	1/12/2019	0	\$	-	\$	-	TC		12/11/2018	1/12/2019						
84	0024015147	Street Lights	DEKALB COUNTY GOVERNMENT		00 MEMORIAL DR UNIT PHS-2				DECATUR	GA	30032	1/12/2019	0	\$	1,370.14	\$	1,370.14	OL REG		12/11/2018	1/12/2019						
120	0199580062	Street Lights	DEKALB COUNTY GOVERNMENT		02 FLAT SHOALS RD				DECATUR	GA	30032	1/3/2019	0	\$	33.73	\$	33.73	GS-C	7538925	12/3/2018	1/3/2019	5290	5381	1	91	0	0
140	0255936111	Street Lights	DEKALB COUNTY GOVERNMENT		00 MEMORIAL DR UNIT PHS-3				DECATUR	GA	30032	1/12/2019	0	\$	1,703.42	\$	1,703.42	OL REG		12/11/2018	1/12/2019						
186	0408924176	Street Lights	DEKALB COUNTY GOVERNMENT		0 MOUNTAIN DR				DECATUR	GA	30032	1/15/2019	0	\$	184.43	\$	184.43	OLUNR		12/13/2018	1/15/2019						
198	0414746039	Sanitation ?	DEKALB COUNTY GOVERNMENT		4450 MEMORIAL DR				DECATUR	GA	30032	12/18/2018	0	\$	4,133.34	\$	4,133.34	TOLU-MB	3139095	11/15/2018	12/17/2018	30472	31431	60	57540	252	0
205	0514529018	Street Lights	DEKALB COUNTY GOVERNMENT		00 MEMORIAL DR UNIT PHS1B				DECATUR	GA	30032	1/12/2019	0	\$	1,333.11	\$	1,333.11	OL REG		12/11/2018	1/12/2019						
218	0678243000	LIGHTING	DEKALB COUNTY GOVERNMENT	LIGHTING	2363 CAMP CIR				DECATUR	GA	30032	12/28/2018	0	\$	235.31	\$	235.31	OL GOVT		11/28/2018	12/28/2018						
433	1788901165	Street Lights	DEKALB COUNTY GOVERNMENT		00 CANDLER RD																						

383	1588364024	Community Achievement Center	DEKALB COUNTY GOVERNMENT		4522 FLAT SHOALS RD		DECATUR	GA 30034	1/8/2019	0	\$ 311.98	\$ 311.98	PLS-C	2809690	12/5/2018	1/7/2019	32427	35771	1	3344	7	6
425	1863242167	Street Lights	DEKALB COUNTY GOVERNMENT		0 RIVER RD		DECATUR	GA 30034	1/10/2019	0	\$ 58.70	\$ 58.70	OLUNR		12/8/2018	1/10/2019						
427	2343073032	Kroger Supermarket Shopping Center	DEKALB COUNTY GOVERNMENT		4919 FLAT SHOALS PKWY		DECATUR	GA 30034	1/2/2019	0	\$ 13.80	\$ 13.80	TC		11/30/2018	1/2/2019						
436	2853837002	COLUMBIA G S	DEKALB COUNTY GOVERNMENT	COLUMBIA G S	1770 COLUMBIA DR UNIT WATER		DECATUR	GA 30034	12/20/2018	0	\$ 6,132.21	\$ 6,132.21	PLM-C	3540784	11/19/2018	12/20/2018	6673	6796	400	49200	208	194
459	3061842076	South Dekalb Mall	DEKALB COUNTY GOVERNMENT		2801 CANDLER RD STE 66		DECATUR	GA 30034	1/3/2019	0	\$ 957.34	\$ 957.34	PLS-C	3138039	12/2/2018	1/3/2019	70482	81612	1	11130	31	19
461	3363613024	Community Achievement Center	DEKALB COUNTY GOVERNMENT		4522 FLAT SHOALS RD		DECATUR	GA 30034	12/28/2018	0	\$ 307.02	\$ 307.02	OL GOVT		11/28/2018	12/28/2018						
480	3901842021	South Dekalb Shopping Center	DEKALB COUNTY GOVERNMENT		2853 CANDLER RD STE 100		DECATUR	GA 30034	1/3/2019	0	\$ 83.45	\$ 83.45	GS-C	3299872	12/2/2018	1/2/2019	23052	23457	1	405	0	0
490	3911836017	Community Achievement Center	DEKALB COUNTY GOVERNMENT		4522 FLAT SHOALS RD		DECATUR	GA 30034	1/9/2019	0	\$ 1,002.70	\$ 1,002.70	TOU-MB	3341847	12/6/2018	1/9/2019	1368	1522	80	12320	37	0
495	3953836017	Community Achievement Center	DEKALB COUNTY GOVERNMENT		4522 FLAT SHOALS RD	UNIT TNSCT	DECATUR	GA 30034	1/8/2019	0	\$ 198.56	\$ 198.56	GS-C	2985436	12/5/2018	1/7/2019	70984	72113	1	1129	0	0
16	4069842015	South Dekalb Shopping Center ?	DEKALB COUNTY GOVERNMENT		2853 CANDLER RD STE 203		DECATUR	GA 30034	1/3/2019	0	\$ 1,338.88	\$ 1,338.88	TOU-MB	3120563	12/2/2018	1/2/2019	38014	38442	40	17120	56	0
39	5341836016	Street Lights	DEKALB COUNTY GOVERNMENT	SERVICE	2390 WILDCAT RD UNIT MAIN		DECATUR	GA 30034	1/8/2019	0	\$ 114.74	\$ 114.74	PLS-C	3138656	12/3/2018	1/7/2019	3254	3261	80	560	2	5
63	7849835022	Street Lights	DEKALB COUNTY GOVERNMENT		3183 RAINBOW DR		DECATUR	GA 30034	1/3/2019	0	\$ 344.13	\$ 344.13	OL REG	4026509	12/3/2018	1/3/2019	1986	1991	1	5	0	0
123	0909191028	Great Faith Ministries Atlanta	DEKALB COUNTY GOVERNMENT		1500 AGAPE WAY		DECATUR	GA 30035	1/9/2019	0	\$ 66.33	\$ 66.33	GS-I	3145237	12/6/2018	1/8/2019	24332	24635	1	303	0	0
139	7413850028	Street Lights	DEKALB COUNTY GOVERNMENT		2074 S HAIRSTON RD		DECATUR	GA 30035	12/27/2018	0	\$ 23.17	\$ 23.17	TCM	7328962	11/27/2018	12/27/2018	6067	6186	1	119	0	0
145	8529852004	SCARBROUGH L S	DEKALB COUNTY GOVERNMENT	SCARBROUGH L S	5810 COVINGTON HWY		DECATUR	GA 30035	1/7/2019	0	\$ 264.34	\$ 264.34	GS-I	3174913	12/4/2018	1/6/2019	25030	26602	1	1572	0	0
147	0003389606	Street Lights	DEKALB COUNTY GOVERNMENT		0 ENERGY ONLY NORTH		DORAVILLE	GA 30340	12/28/2018	0	\$ 607.77	\$ 607.77	OL GOVT		11/28/2018	12/28/2018						
197	0108417036	Chiefs Futbol Club	DEKALB COUNTY GOVERNMENT		3650 PLEASANTDALE RD		DORAVILLE	GA 30340	1/3/2019	0	\$ 266.24	\$ 266.24	OLUNR		12/3/2018	1/3/2019						
238	0111114037	Citgo Gas Station	DEKALB COUNTY GOVERNMENT		5417 BUFORD HWY NE		DORAVILLE	GA 30340	1/9/2019	0	\$ 668.27	\$ 668.27	PLS-C	1670626	12/6/2018	1/9/2019	8330	14998	1	6678	14	14
250	0671364037	PEDLIGHTS	DEKALB COUNTY GOVERNMENT	PEDLIGHTS	5215 BUFORD HWY		DORAVILLE	GA 30340	1/7/2019	0	\$ 604.43	\$ 604.43	PLS-C	1671685	12/4/2018	1/6/2019	21291	27734	1	6443	12	12
255	7542717001	Chiefs Futbol Club	DEKALB COUNTY GOVERNMENT		3650 PLEASANTDALE RD		DORAVILLE	GA 30340	1/2/2019	0	\$ 3,392.73	\$ 3,392.73	OL-UGAT	3227620	10/28/2018	12/30/2018	7097	7143	40	1840	2	212
351	0435698028	Street Lights	DEKALB COUNTY GOVERNMENT		2111 MOUNT VERNON RD		DUNWOODY	GA 30338	12/18/2018	0	\$ 22.46	\$ 22.46	GS-I	7571947	11/14/2018	12/14/2018	0	0	1	0	0	0
360	0620786003	DEK CNT QVT FIN	DEKALB COUNTY GOVERNMENT		5187 TILLY MILL RD	UNIT 8021	DUNWOODY	GA 30338	1/16/2019	0	\$ 1,153.43	\$ 1,153.43	PLM-I	3528139	12/13/2018	1/15/2019	17637	17809	40	6880	58	86
414	1398783000	DUNWOODY G S	DEKALB COUNTY GOVERNMENT		5335 ROBERTS DR UNIT 8021		DUNWOODY	GA 30338	12/19/2018	0	\$ 997.86	\$ 997.86	TOU-MB	3233185	11/15/2018	12/19/2018	0	158	60	10680	79	0
430	1419783002	N DEKALB ART	DEKALB COUNTY GOVERNMENT		5345 ROBERTS DR UNIT 1140		DUNWOODY	GA 30338	12/18/2018	0	\$ 260.63	\$ 260.63	GS-C	1671389	11/5/2018	12/17/2018	98003	99499	1	1496	0	0
450	0108174027	RESIDENTIAL	DEKALB COUNTY GOVERNMENT	RESIDENTIAL	4834 CARLY WAY		LITHONIA	GA 30038	1/7/2019	0	\$ 225.10	\$ 225.10	RES	3123548	12/4/2018	1/6/2019	63981	66296	1	2315	0	0
36	0702680055	Stonecrest Mall Parking Lights ?	DEKALB COUNTY GOVERNMENT		2929 TURNER HILL RD	STE 1430	LITHONIA	GA 30038	1/16/2019	0	\$ 284.53	\$ 284.53	PLS-C	3128208	12/12/2018	1/14/2019	89857	91419	1	1562	7	14
50	2683986014	Street Lights	DEKALB COUNTY GOVERNMENT		5574 ROCK SPRINGS RD		LITHONIA	GA 30038	1/2/2019	0	\$ 21.83	\$ 21.83	TC		11/30/2018	1/2/2019						
82	3153939017	RESIDENTIAL	DEKALB COUNTY GOVERNMENT	Burlington Lift Station	3885 WOLVERTON CIR		LITHONIA	GA 30038	12/28/2018	0	\$ 529.18	\$ 529.18	PLS-I	3146163	11/27/2018	12/27/2018	91230	94257	1	3027	9	16
89	3803658016	Publix Supermarket ATM	DEKALB COUNTY GOVERNMENT		3045 PANOLA RD		LITHONIA	GA 30038	1/7/2019	0	\$ 28.12	\$ 28.12	TCM	7547513	12/5/2018	1/7/2019	10721	10941	1	220	0	0
90	4083731135	Street Lights	DEKALB COUNTY GOVERNMENT		4673 THOMPSON MILL RD		LITHONIA	GA 30038	1/7/2019	0	\$ 23.06	\$ 23.06	GS-C	7039983	12/5/2018	1/7/2019	2209	2225	1	16	0	0
138	0410273335	TS@COVINGTON HWY	DEKALB COUNTY GOVERNMENT		7227 COVINGTON HWY		LITHONIA	GA 30058	12/17/2018	0	\$ 14.93	\$ 14.93	TC		11/15/2018	12/17/2018						
199	2738844009	EMMIE SMITH	DEKALB COUNTY GOVERNMENT		6329 SHADOW ROCK DR	UNIT 6118	LITHONIA	GA 30058	1/14/2019	0	\$ 22.66	\$ 22.66	GS-C	4065190	12/10/2018	1/11/2019	152	152	1	0	0	0
235	3443845004	ACCOUNTING SERV	DEKALB COUNTY GOVERNMENT	ACCOUNTING SERVICES	2146 S DESHON RD UNIT B		LITHONIA	GA 30058	1/15/2019	0	\$ 13.65	\$ 13.65	RES	4542563	12/13/2018	1/15/2019	3002	3013	1	11	0	0
296	5274849003	6118 AC220	DEKALB COUNTY GOVERNMENT	6118 AC220	5848 HILLVALE RD UNIT MAINT		LITHONIA	GA 30058	1/21/2019	0	\$ 370.47	\$ 370.47	PLS-C	2985187	11/29/2018	12/30/2018	6278	11159	1	4881	7	6
344	6724799004	8133 AC 220 EAS	DEKALB COUNTY GOVERNMENT	8133 AC 220 EAST LOT	1750 ROGERS LAKE RD	UNIT 8133	LITHONIA	GA 30058	1/16/2019	0	\$ 697.53	\$ 697.53	TOU-MB	3231273	12/13/2018	1/16/2019	18236	18372	60	8160	14	0
362	6745799004	EAST LOT GAS	DEKALB COUNTY GOVERNMENT	EAST LOT GAS	1750 ROGERS LAKE RD	UNIT 1210	LITHONIA	GA 30058	1/16/2019	0	\$ 125.67	\$ 125.67	GS-I	4068996	12/13/2018	1/15/2019	1164	1181	40	680	0	0
439	7043843024	Street Lights	DEKALB COUNTY GOVERNMENT		6094 SHADOW ROCK DR		LITHONIA	GA 30058	1/11/2019	0	\$ 236.68	\$ 236.68	GS-C	7331099	12/10/2018	1/11/2019	61139	62505	1	1366	0	0
101	7064843024	Street Lights	DEKALB COUNTY GOVERNMENT		6094 SHADOW ROCK DR	UNIT CARTS	LITHONIA	GA 30058	1/11/2019	0	\$ 288.24	\$ 288.24	TOU-MB	3296652	12/10/2018	1/11/2019	2577	2624	40	1880	34	0
151	7127843008	MV IRRIG	DEKALB COUNTY GOVERNMENT		6094 SHADOW ROCK DR	UNIT 6110	LITHONIA	GA 30058	1/12/2019	0	\$ 360.60	\$ 360.60	TOU-MB	3231348	12/10/2018	1/12/2019	1490	1573	40	3320	14	0
56	7442843000	KINGWAY L S	DEKALB COUNTY GOVERNMENT		5985 KINGWAY WALK UNIT 8033		LITHONIA	GA 30058	1/11/2019	0	\$ 252.86	\$ 252.86	GS-I	3124536	12/9/2018	1/10/2019	76366	77861	1	1495	0	0
216	8362798014	Rock Chapel Church	DEKALB COUNTY GOVERNMENT		1116 ROCK CHAPEL RD	UNIT 6118	LITHONIA	GA 30058	1/16/2019	0	\$ 27.74	\$ 27.74	GS-C	3149794	12/13/2018	1/15/2019	27681	27733	1	52	0	0
248	8404798007	ROCK CHAPEL	DEKALB COUNTY GOVERNMENT	ROCK CHAPEL	1116 ROCK CHAPEL RD	UNIT 6118	LITHONIA	GA 30058	1/16/2019	0	\$ 23.01	\$ 23.01	GS-C	4019566	12/14/2018	1/16/2019	7103	7113	1	10	0	0
181	5181744002	HAMILTON CTR	DEKALB COUNTY GOVERNMENT		3262 CHAPEL ST		SCOTTDALE	GA 30079	12/18/2018	0	\$ 2,738.66	\$ 2,738.66	SCH	3118522	11/15/2018	12/17/2018	33585	33839	80	20320	43	79
47	0136187034	Capital City Bank	DEKALB COUNTY GOVERNMENT		5674 MEMORIAL DR		STONE MOUNTAIN	GA 30083	12/27/2018	0	\$ 31.62	\$ 31.62	GS-C		11/27/2018	12/27/2018	15600	15678	1	78	0	0
189	0229285009	Waffle House	DEKALB COUNTY GOVERNMENT		7977 ROCKBRIDGE RD UNIT 20		STONE MOUNTAIN	GA 30083	1/16/2019	0	\$ 23.39	\$ 23.39	GS-C	4529190	12/14/2018	1/16/2019	2136	2159	1	23	0	0
41	0261837003	MAIN BLDG	DEKALB COUNTY GOVT		5384 MANOR DR		STONE MOUNTAIN	GA 30083	12/17/2018	0	\$ 700.42	\$ 700.42										
54	0282837021	KILN & POTTERY	DEKALB COUNTY GOVT		1005 SECOND ST		STONE MOUNTAIN	GA 30083	12/17/2018	0	\$ 47.49	\$ 47.49										
87	0717153047	Townhouse ?	DEKALB COUNTY GOVERNMENT		4477 WATSON RIDGE DR		STONE MOUNTAIN	GA 30083	12/27/2018	0	\$ 151.82	\$ 151.82	OLUNR		11/27/2018	12/27/2018						
126	1061849019	DeKalb County School Public Safety	DEKALB COUNTY GOVERNMENT		5861 MEMORIAL DR		STONE MOUNTAIN	GA 30083	12/19/2018	0	\$ 751.65	\$ 751.65	TOU-MB	3148436	11/18/2018	12/18/2018	26055	26276	40	8840	23	0
243	1187199016	Street Lights	DEKALB COUNTY GOVERNMENT		5128 STONE MILL WAY		STONE MOUNTAIN	GA 30083	12/19/2018	0	\$ 425.41	\$ 425.41	PLS-I	3319383	11/19/2018	12/19/2018	3883	8075	1	4192	11	9
143	7395760001	Street Lights	DEKALB COUNTY GOVERNMENT		4740 CLARION PASS		STONE MOUNTAIN	GA 30083	12/19/2018	0	\$ 252.04	\$ 252.04	OLUNR		11/26/2018	12/26/2018						
34	8672771030	MTR & LIGHTING	DEKALB COUNTY GOVERNMENT		1640 ROADHAVEN DR		STONE MOUNTAIN	GA 30083	12/21/2018	0	\$ 239.78	\$ 239.78	PLS-C	2163919	11/20/2018	12/21/2018	61842	63359	1	1517	4	6
176	3784640005	MEETING HOUSE	DEKALB COUNTY GOVERNMENT	MTR & LIGHTING	1034 STEPHENSON DR		STONE MOUNTAIN	GA 30087	12/17/2018	0	\$ 12.43	\$ 12.43	RES	7337548	11/15/2018	12/16/2018	1379	1379	1	0	0	0
237	4545836015	Residential House	DEKALB COUNTY GOVERNMENT	MEETING HOUSE	608 CATRINA CT	UNIT 6118	STONE MOUNTAIN	GA 30087	12/17/2018	0	\$ 280.97	\$ 280.97	PLS-I	3349376	11/14/2018	12/16/2018	3910	6725	1	2815	7	5
247	1353823003	WADE WALKER MAI	DEKALB COUNTY GOVERNMENT		5585 ROCKBRIDGE RD	UNIT 6118	STONE MOUNTAIN	GA 30088	12/17/2018	0	\$ 240.30	\$ 240.30	GS-C	33								

240	3539942010	DeKalb County Police Academy	DEKALB COUNTY GOVERNMENT		2484 BRUCE ST BLDG B			LITHONIA	GA 30058	1/11/2019	0	\$	249.85	\$	249.85	GS-C	4774762	12/9/2018	1/11/2019	62948	64369	1	1421	0	0	
262	4985845005	BRUCE ST CENTER	DEKALB COUNTY GOVERNMENT		2484 BRUCE ST UNIT 1140			LITHONIA	GA 30058	1/11/2019	0	\$	1,920.75	\$	1,920.75	TOU-MB	3231270	12/9/2018	1/10/2019	54121	54544	60	25380	56	0	
464	7275927017	DeKalb County Police Academy	DEKALB COUNTY GOVERNMENT		2484 BRUCE ST			LITHONIA	GA 30058	12/28/2018	0	\$	62.53	\$	62.53	OL GOVT		11/28/2018	12/28/2018							
373	1238868017	POLICE DEPT	DEKALB COUNTY GOVERNMENT	POLICE DEPT	4451 LAWRENCEVILLE HWY			TUCKER	GA 30084	12/27/2018	0	\$	1,843.32	\$	1,843.32	PLM-C	3307452	11/26/2018	12/26/2018	8854	9268	40	16560	39	45	
DeKalb County Properties																										
	3667546002	Airport - Accent Blue	DEKALB COUNTY GOVERNMENT	1/16/2019	1/31/2019	1410631.86																				
371	0003391704	Airport	DEKALB PEACHTREE AIRPORT		0 FLIGHTWAY DR			CHAMBLEE	GA 30341	12/28/2018	0		2188.85		2188.85	OL GOVT		11/28/2018	12/28/2018							
154	0303749064	Airport	DEKALB COUNTY GOVERNMENT		2200 AIRPORT RD BLDG 2			CHAMBLEE	GA 30341	1/4/2019	0		413.1		413.1	PLS-C	3052194	12/3/2018	1/4/2019	3691	3784	40	3720	11	9	
217	0306252004	Airport	DEKALB COUNTY GOVERNMENT		2000 AIRPORT RD			CHAMBLEE	GA 30341	1/4/2019	0		593.93		593.93	PLS-C	3516254	12/3/2018	1/3/2019	5295	5450	40	6200	17	12	
249	0405205183	Airport	DEKALB COUNTY GOVERNMENT		2500 AIRPORT RD BLDG 5			CHAMBLEE	GA 30341	1/4/2019	0		333.38		333.38	PLS-C	3588531	12/4/2018	1/3/2019	42685	45765	1	3080	12	7	
265	0648215016	Airport	DEKALB COUNTY GOVT		3303 HARDEE AVE UNIT			CHAMBLEE	GA 30341	1/4/2019	0		25.01		25.01	GS-C	7447413	12/4/2018	1/4/2019	2338	2371	1	33	0	0	
44	0711525085	Airport	DEKALB COUNTY GOVERNMENT		2400 AIRPORT RD BLDG 4			CHAMBLEE	GA 30341	1/4/2019	0		532.13		532.13	PLS-C	3517665	12/3/2018	1/3/2019	4107	4257	40	6000	15	10	
51	0768951140	Airport	DEKALB COUNTY GOVERNMENT		2000 AIRPORT RD			CHAMBLEE	GA 30341	12/28/2018	0		656.58		656.58	OLUNR		11/28/2018	12/28/2018							
69	0852555018	Airport	DEKALB COUNTY GOVERNMENT		2300 AIRPORT RD BLDG 3			CHAMBLEE	GA 30341	1/4/2019	0		400.6		400.6	GS-C	3230308	12/3/2018	1/4/2019	2635	2694	40	2360	0	0	
395	2599047008	Airport	DEKALB COUNTY GOVERNMENT		1983 BRAGG ST			CHAMBLEE	GA 30341	1/7/2019	0		623.75		623.75	TOU-E-C	3657411	12/4/2018	1/7/2019	5732	5816	80	6720	34	34	
61	4651889006	GATE 5	DEKALB COUNTY GOVERNMENT		2000 AIRPORT RD			CHAMBLEE	GA 30341	1/4/2019	0		23.31		23.31	GS-C	7613270	12/4/2018	1/4/2019	325	336	1	11	0	0	
361	7356782009	AIRFIELD LIGHTS	DEKALB COUNTY GOVERNMENT		2000 AIRPORT RD UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		1625.22		1625.22	TOU-E-C	3256100	12/4/2018	1/4/2019	17663	18014	60	21060	67	67	
460	7377782009	ADMIN BLDG 2	DEKALB COUNTY GOVERNMENT		2044 AIRPORT RD UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		4100.03		4100.03	PLM-C	3256103	12/3/2018	1/3/2019	0	1082	40	46920	132	82	
21	7608782008	A-T-HANGER	DEKALB COUNTY GOVERNMENT		3321 HARDEE AVE UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		279.08		279.08	PLS-C	3014390	12/3/2018	1/4/2019	6146	6206	40	2400	6	6	
23	7671782001	RUNWAY	DEKALB COUNTY GOVERNMENT		3419 HARDEE AVE UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		28.73		28.73	GS-C	7212584	12/4/2018	1/4/2019	3975	4031	1	56	0	0	
53	770745026	CAM 120	DEKALB COUNTY GOVERNMENT	CAM 120	2823 CHAMBLEE TUCKER RD			CHAMBLEE	GA 30341	1/9/2019	0		32.35		32.35	GS-C		12/7/2018	1/9/2019	15673	15751	1	78	0	0	
79	7755782003	B-T-HANGER	DEKALB COUNTY GOVERNMENT		0 CORSAIR DR UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		215.91		215.91	PLS-C	3008028	12/3/2018	1/3/2019	13127	14672	1	1545	5	5	
191	7902782000	NE AIRPORT GATE	DEKALB COUNTY GOVERNMENT		11 CORSAIR DR UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		26.94		26.94	GS-C	5551997	12/4/2018	1/4/2019	1576	1621	1	45	0	0	
224	8534365009	Airport	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY			CHAMBLEE	GA 30341	12/28/2018	0		239.61		239.61	OL GOVT		11/28/2018	12/28/2018							
280	8699799005	NORTHERN SVC CN	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY UNIT 6116			CHAMBLEE	GA 30341	1/7/2019	0		1388.34		1388.34	TOU-MB	3515599	12/4/2018	1/6/2019	9657	9891	80	18720	42	0	
458	8783799000	BUFORD FUEL	DEKALB COUNTY GOVERNMENT		4600 BUFORD HWY UNIT 8110			CHAMBLEE	GA 30341	1/7/2019	0		48.46		48.46	GS-C	1670589	12/4/2018	1/6/2019	31826	32004	1	178	0	0	
19	9833800006	PDK BEACON LIGH	DEKALB COUNTY GOVERNMENT		4400 BUFORD HWY UNIT 8210			CHAMBLEE	GA 30341	1/4/2019	0		90.05		90.05	GS-C	3008030	12/4/2018	1/4/2019	44663	45099	1	436	0	0	
Parks & Recreation - Green																										
			DECATUR	GA 30030																						
70	0773922017	Parks & Rec. Office	DEKALB COUNTY GOVERNMENT		3681 CHESTNUT ST			AVONDALE ESTATES	GA 30002	12/28/2018	0		479.2		479.2	OL GOVT		11/28/2018	12/28/2018							
157	2346744010	Parks & Rec. Office	DEKALB COUNTY GOVERNMENT		3681 CHESTNUT ST UNIT 6115			AVONDALE ESTATES	GA 30002	1/14/2019	0		743.17		743.17	PLS-C	1889434	12/11/2018	1/13/2019	3515	3719	40	8160	16	15	
163	3643030016	Parks & Rec. Office	DEKALB COUNTY GOVERNMENT		3681 CHESTNUT ST			AVONDALE ESTATES	GA 30002	1/14/2019	0		467.19		467.19	TOU-MB	3514249	12/11/2018	1/13/2019	8997	9112	40	4600	21	0	
83	1341295002	CHILDREN PLAYGR	DEKALB COUNTY GOVERNMENT	CHILDREN'S PLAYGROUND	2000 AIRPORT RD			CHAMBLEE	GA 30341	1/4/2019	0		79.4		79.4	GS-C	7482479	12/4/2018	1/4/2019	16512	16882	1	370	0	0	
393	1871449018	Parks & Rec. Office	DEKALB COUNTY GOVERNMENT		2301 DRESDEN DR			CHAMBLEE	GA 30341	1/7/2019	0		273.5		273.5	PLS-C	3010634	12/5/2018	1/6/2019	6673	6746	40	2920	5	5	
207	0581155017	N.H. Scott Recreation Center	DEKALB COUNTY GOVERNMENT		2230 TILSON RD			DECATUR	GA 30032	12/21/2018	0		1190.99		1190.99	PLM-C	3235648	11/20/2018	12/20/2018	16133	16312	40	7160	20	36	
329	1362834009	MIDWAY REC CENT	DEKALB COUNTY GOVERNMENT	MIDWAY REC CENTER	3201 MIDWAY RD UNIT 6105			DECATUR	GA 30032	12/20/2018	0		585.2		585.2	TOU-MB	3129306	11/19/2018	12/19/2018	31810	31978	40	6720	18	0	
399	1404834001	MIDWAY MAINT	DEKALB COUNTY GOVERNMENT	MIDWAY MAINT	3181 MIDWAY RD UNIT 6117			DECATUR	GA 30032	12/20/2018	0		23.14		23.14	GS-C	2984855	11/19/2018	12/20/2018	37523	37545	1	22	0	0	
415	1425834029	Midway Recreation Center	DEKALB COUNTY GOVERNMENT		3181 MIDWAY RD UNIT FTBL			DECATUR	GA 30032	12/20/2018	0		343.09		343.09	TOU-MB	3120434	11/20/2018	12/20/2018	422	437	200	3000	120	0	
4	4490837015	LONGDALE PARK	DEKALB COUNTY GOVERNMENT	LONGDALE PARK	1830 LONGDALE DR			DECATUR	GA 30032	12/26/2018	0		22.51		22.51	GS-C	2809539	11/25/2018	12/26/2018	146	146	1	0	0	0	
40	6659024009	Belvedere Park #1	DEKALB COUNTY GOVERNMENT		3569 LARKSPUR TER			DECATUR	GA 30032	12/20/2018	0		26.57		26.57	GS-C	7039637	11/19/2018	12/20/2018	4788	4834	1	46	0	0	
489	8066834000	Shoal Creek Park #1	DEKALB COUNTY GOVERNMENT		3642 GLENWOOD RD UNIT B5L2			DECATUR	GA 30032	12/21/2018	0		23.14		23.14	GS-C	1802718	11/20/2018	12/21/2018	8167	8189	1	22	0	0	
9	9803844009	MARK TRAIL POOL	DEKALB COUNTY GOVERNMENT	MARK TRAIL POOL	2230 TILSON RD			DECATUR	GA 30032	12/21/2018	0		38.27		38.27	GS-C	3139652	11/20/2018	12/20/2018	521	523	60	120	0	0	
45	0003411603	Mason Mill Tennis Center	DEKALB COUNTY GOVERNMENT		1340 MCCONNELL DR			DECATUR	GA 30033	12/28/2018	0		848.1		848.1	OL GOVT		11/28/2018	12/28/2018							
182	5166773007	N DEC YOUTH ASS	DEKALB COUNTY GOVERNMENT	N DEC YOUTH ASSOC	872 GAYLEMONT CIR UNIT 6116			DECATUR	GA 30033	1/14/2019	0		67.36		67.36	GS-C	2971697	12/12/2018	1/13/2019	37791	38092	1	301	0	0	
185	530776017	DeKalb County Horse Farm	DEKALB COUNTY GOVERNMENT		2057 LAWRENCEVILLE HWY			DECATUR	GA 30033	1/15/2019	0		22.9		22.9	OL REG		12/13/2018	1/15/2019							
198	534976017	Street Lights	DEKALB COUNTY GOVERNMENT	Little Creek Horse Farm	2015 LAWRENCEVILLE HWY	UNIT FARM			DECATUR	GA 30033	1/12/2019	0	\$	871.41	\$	871.41	TOU-E-C	3132833	12/11/2018	1/12/2019	14451	24879	1	10428	24	24
214	7329772006	MEDLOCK POOL	DEKALB COUNTY GOVERNMENT	MEDLOCK POOL	872 GAYLEMONT CIR UNIT 6114			DECATUR	GA 30033	1/14/2019	0		40.56		40.56	PLS-C	3122618	12/11/2018	1/14/2019	18580	18699	1	119	1	18	
281	0359925027	Exchange Park Recreation Center	DEKALB COUNTY GOVERNMENT		2771 COLUMBIA DR			DECATUR	GA 30034	1/3/2019	0		455.12		455.12	PLS-C	3308055	12/2/2018	1/3/2019	42553	46557	1	4304	10	10	
287	0593919183	Exchange Park Recreation Center	DEKALB COUNTY GOVERNMENT		2771 COLUMBIA DR			DECATUR	GA 30034	1/3/2019	0		1460.03		1460.03	TOU-E-C	3530571	12/2/2018	1/3/2019	27726	28203	40				

403	434578005	COFER POOL	DEKALB COUNTY GOVERNMENT	COFER POOL	4257 N PARK DR UNIT 6114			TUCKER	GA 30084	12/28/2018	0	95.9	95.9	PLS-C	3171429	11/26/2018	12/27/2018	17509	17520	40	440	2	19	
430	1419783002	N DEKALB CRT	DEKALB COUNTY GOVERNMENT		5345 ROBERTS DR UNIT 1140			DUNWOODY	GA 30338	12/18/2018	0	\$ 260.63	\$ 260.63	GS-C	1671389	11/15/2018	12/17/2018	98003	99499	1	1496	0	0	
412	6738772002	TUCKER REC TRT	DEKALB COUNTY GOVERNMENT	TUCKER REC CTR	4898 LAVISTA DR UNIT 6105			TUCKER	GA 30084	12/26/2018	0	1370.27	1370.27	TUO-MB	3231290	11/25/2018	12/25/2018	48954	49244	60	17400	52	0	
129	2267876015	Fire Station & Headquarters - Pink	GEORGIA POWER COMPANY																					
158	2707605045	Fire Station # 3	DEKALB COUNTY GOVERNMENT		100 N CLARENDON AVE			AVONDALE ESTATES	GA 30002	1/11/2019	0	931.96	931.96	PLS-C	3048868	12/9/2018	1/10/2019	7183	7347	40	6560	20	25	
86	1444244027	Fire Station # 19	DEKALB COUNTY GOVERNMENT		100 N CLARENDON AVE			AVONDALE ESTATES	GA 30002	1/14/2019	0	372.43	372.43	OLUNR		12/12/2018	1/14/2019							
165	7058774009	FIRE 19	DEKALB COUNTY GOVERNMENT	FIRE 19	3253 MERCER UNIVERSITY DR	UNIT 4625		CHAMBLEE	GA 30341	1/7/2019	0	615.88	615.88	TUO-MB	2817129	12/5/2018	1/7/2019	27588	33257	1	5669	10	14	
206	7944782000	FIRE 15	DEKALB COUNTY GOVERNMENT	FIRE STATION 15	2017 FLIGHTWAY DR UNIT 4625			CHAMBLEE	GA 30341	1/7/2019	0	714.06	714.06	TUO-MB	3504590	12/2/2018	1/6/2019	21812	22020	40	8320	18	0	
52	9364778002	FIRE 23	DEKALB COUNTY GOVERNMENT	FIRE 23	1265 BROCKETT RD UNIT 4625			CHAMBLEE	GA 30341	1/4/2019	0	715.71	715.71	PLS-C	3009181	12/3/2018	1/3/2019	23182	23333	40	6040	15	17	
1	3819840002	FIRE 7	DEKALB COUNTY GOVERNMENT	FIRE 7	1776 DERRILL DR UNIT 4625			CLARKSTON	GA 30021	12/19/2018	0	1004.02	1004.02	PLS-C	3125456	11/18/2018	12/18/2018	29505	29726	40	8840	31	24	
10	4797989009	Fire Station # 26	DEKALB COUNTY GOVERNMENT	FIRE-7	2522 MCAFFEE RD UNIT FIRE			DECATUR	GA 30032	12/20/2018	0	532.84	532.84	PLS-C	2984426	11/19/2018	12/19/2018	43282	46485	1	3203	10	15	
339	7721932017	Fire Station # 6	DEKALB COUNTY GOVERNMENT		2342 FLAT SHOALS RD			DECATUR	GA 30032	12/26/2018	0	941.58	941.58	PLS-C	3129433	11/20/2018	12/20/2018	28532	28770	40	9520	27	21	
222	8115773001	FIRE 09	DEKALB COUNTY GOVERNMENT		3858 N DRUID HILLS RD	UNIT 4625		DECATUR	GA 30033	1/14/2019	0	637.37	637.37	PLS-C	3126110	12/11/2018	1/13/2019	14215	14340	40	5000	14	26	
290	0603670024	Fire Training Academy	DEKALB COUNTY GOVERNMENT		3161 WARREN RD			DECATUR	GA 30034	1/3/2019	0	754.95	754.95	PLS-C	2808759	12/2/2018	1/2/2019	7025	7136	40	4440	34	13	
294	0623001007	Fire Training Academy	DEKALB COUNTY GOVERNMENT		3161 WARREN RD			DECATUR	GA 30034	1/3/2019	0	438.23	438.23	TUOEU-C	3219220	12/3/2018	1/3/2019	2701	2805	40	4160	18	18	
364	1011159010	Fire Training Academy	DEKALB COUNTY GOVERNMENT		1749 FAIRLAKE DR UNIT A			DECATUR	GA 30034	1/3/2019	0	631.97	631.97	PLS-C	3138072	12/2/2018	1/3/2019	19247	23645	1	4398	9	17	
380	1486844009	FIRE-MAINT	DEKALB COUNTY GOVERNMENT		3161 WARREN RD			DECATUR	GA 30034	1/3/2019	0	151.55	151.55	GS-C	2985992	12/2/2018	1/2/2019	48087	48922	1	835	0	0	
381	1507844001	FIRE-TOWER	DEKALB COUNTY GOVERNMENT		3190 WARREN RD UNIT 4625			DECATUR	GA 30034	1/3/2019	0	745.99	745.99	TUO-MB	5234678	12/3/2018	1/3/2019	8783	9006	40	8920	29	0	
404	1738844008	FIRE-20	DEKALB COUNTY GOVERNMENT		2919 WARREN RD UNIT 4625			DECATUR	GA 30034	1/4/2019	0	691.21	691.21	TUO-MB	3120167	12/2/2018	1/3/2019	23455	23649	40	7760	17	0	
429	2564913017	Fire Training Academy	DEKALB COUNTY GOVERNMENT		1749 FAIRLAKE DR UNIT B			DECATUR	GA 30034	1/4/2019	0	22.54	22.54	GS-C	4071287	12/2/2018	1/2/2019	62183	62183	1	0	0	0	
59	6936836007	FIRE 16	DEKALB COUNTY GOVERNMENT		2750 PLEASANTWOOD RD	UNIT 4625		DECATUR	GA 30034	1/7/2019	0	700.48	700.48	PLS-C	2985064	12/4/2018	1/6/2019	31381	36804	1	5423	15	18	
409	1377783000	FIRE 12	DEKALB COUNTY GOVERNMENT		5323 ROBERTS DR UNIT 4625			DUNWOODY	GA 30338	12/18/2018	0	476.36	476.36	PLS-C	1669900	11/16/2018	12/17/2018	36310	39741	1	3431	12	12	
449	9505794006	FIRE 21	DEKALB COUNTY GOVERNMENT		1090 CROWN POINTE PKWY	UNIT 4625		DUNWOODY	GA 30338	12/17/2018	0	1121.62	1121.62	PLS-C	3010040	11/14/2018	12/17/2018	31596	31888	40	11680	36	24	
299	5900839004	FIRE-14	DEKALB COUNTY GOVERNMENT	FIRE-14	7207 COVINGTON HWY	UNIT 4625		LITHONIA	GA 30058	1/15/2019	0	446.99	446.99	PLS-C	2809371	12/12/2018	1/15/2019	83307	86185	1	2878	6	12	
304	5921839004	FIRE-14 TRLR	DEKALB COUNTY GOVERNMENT	FIRE-14 TRLR	7207 COVINGTON HWY	UNIT 4625		LITHONIA	GA 30058	1/16/2019	0	23.1	23.1	GS-C	2809368	12/12/2018	1/14/2019	3929	3929	1	0	0	0	
233	0244449009	Fire Station # 24	DEKALB COUNTY GOVERNMENT		4154 REDAN RD UNIT 50			STONE MOUNTAIN	GA 30083	12/18/2018	0	23.57	23.57	GS-C	1877806	11/16/2018	12/18/2018	2413	2440	1	27	0	0	
463	7045842007	FIRE-24	DEKALB COUNTY GOVERNMENT	FIRE STATION 24	4154 REDAN RD UNIT 4625			STONE MOUNTAIN	GA 30083	12/18/2018	0	1263.56	1263.56	PLM-C	3120329	11/15/2018	12/17/2018	20732	20895	60	9780	26	34	
27	7151843003	FIRE 11	DEKALB COUNTY GOVERNMENT	FIRE STATION 11	6715 MEMORIAL DR UNIT 4625			STONE MOUNTAIN	GA 30083	12/19/2018	0	573.22	573.22	PLS-C	4069085	11/18/2018	12/18/2018	12840	12924	40	3360	10	16	
279	8660836008	FIRE 13	DEKALB COUNTY GOVERNMENT	FIRE STATION 13	5619 REDAN RD UNIT 4625			STONE MOUNTAIN	GA 30088	1/11/2019	0	408.55	408.55	PLS-C	2817114	12/9/2018	1/10/2019	283	2873	1	2590	9	11	
335	0387778001	FIRE 22	DEKALB COUNTY GOVERNMENT	FIRE STATION 22	1859 MONTREAL RD UNIT 4625			TUCKER	GA 30084	1/12/2019	0	939.93	939.93	PLS-C	3126204	12/10/2018	1/11/2019	27113	27322	40	8360	36	22	
336	0402645032	DeKalb County Fire Headquarters	DEKALB COUNTY GOVERNMENT		1950 W EXCHANGE PL			TUCKER	GA 30084	12/26/2018	0	34.94	34.94	GS-C	7446529	11/26/2018	12/26/2018	16525	16620	1	950	0	0	
396	3377210004	DeKalb County Fire Headquarters	DEKALB COUNTY GOVERNMENT		1950 W EXCHANGE LN	UNIT UNMT		TUCKER	GA 30084	12/28/2018	0	1473.71	1473.71	OL GOVT		11/28/2018	12/28/2018							
400	3735781006	FIRE 05	DEKALB COUNTY GOVERNMENT	FIRE 05	4013 LAWRENCEVILLE HWY	UNIT 4625		TUCKER	GA 30084	12/26/2018	0	348.97	348.97	PLS-C	3119304	11/26/2018	12/25/2018	10315	10363	40	1920	8	14	
456	9922106008	DeKalb County Fire Headquarters	DEKALB COUNTY GOVERNMENT		1950 W EXCHANGE PL			TUCKER	GA 30084	12/27/2018	0	38903.52	38903.52	RDTPCL	VY1433	11/27/2018	12/26/2018	0	0	1	504634	986	657	
283	0003370009	Traffic Signal	DEKALB COUNTY GOVERNMENT		1300 COMMERCE DR			DECATUR	GA 30030	12/28/2018	0	1424.71	1424.71	TC		11/28/2018	12/28/2018							
352	0003404500	Traffic Signal	DEKALB COUNTY GOVERNMENT		0 TRFC SGNL S DKL8			DECATUR	GA 30030	12/28/2018	0	1549.38	1549.38	TC		11/28/2018	12/28/2018							
451	0003411505	Traffic Signal	DEKALB COUNTY GOVERNMENT		0 TR SIGNALS TUCKER			DECATUR	GA 30030	12/28/2018	0	1568.58	1568.58	TC		11/28/2018	12/28/2018							
492	0531816038	CAM 100	DEKALB COUNTY GOVERNMENT		0 SCOTT BLVD			DECATUR	GA 30030	1/4/2019	0	32.27	32.27	GS-C		12/4/2018	1/4/2019	15600	15678	1	78	0	0	
254	4107940021	CAM 102	DEKALB COUNTY GOVERNMENT	CAM 102	859 CLAIRMONT AVE			DECATUR	GA 30030	12/27/2018	0	32.2	32.2	GS-C		11/27/2018	12/27/2018	15600	15678	1	78	0	0	
228	5608135025	CAM 101	DEKALB COUNTY GOVERNMENT	CAM 101	1486 SCOTT BLVD			DECATUR	GA 30030	12/27/2018	0	31.62	31.62	GS-C		11/27/2018	12/27/2018	15600	15678	1	78	0	0	
57	0003361402	Traffic Signal	DEKALB COUNTY GOVERNMENT		3361 CAMP RD ST LTS			DECATUR	GA 30032	12/28/2018	0	668.02	668.02	OL GOVT		11/28/2018	12/28/2018							
127	0228047014	Traffic Signal	DEKALB COUNTY GOVERNMENT	SURPLUS WAREHOUSE	3629 CAMP WAY			DECATUR	GA 30032	12/21/2018	0	22.8	22.8	GS-C		11/21/2018	12/21/2018	1107	1117	1	10	0	0	
130	0237696007	Road & Drainage Field Office	DEKALB COUNTY GOVERNMENT		729 CAMP RD			DECATUR	GA 30032	12/28/2018	0	163.31	163.31	OL GOVT		11/28/2018	12/28/2018							
221	0691254038	CAM 7	DEKALB COUNTY GOVERNMENT		0 MEMORIAL DR			DECATUR	GA 30032	1/12/2019	0	31.83	31.83	GS-C		12/11/2018	1/12/2019	15678	15756	1	78	0	0	
416	1563474065	Road & Drainage Field Office	DEKALB COUNTY GOVERNMENT		729 CAMP RD UNIT D			DECATUR	GA 30032	12/19/2018	0	204.22	204.22	GS-C	5689229	11/18/2018	12/19/2018	18939	20108	1	1169	0	0	
472	2223056015	CAMERA	DEKALB COUNTY GOVERNMENT	CAMERA	727 CAMP RD			DECATUR	GA 30032	12/21/2018	0	22.8	22.8	GS-C		11/21/2018	12/21/2018	1107	1117	1	10	0	0	
473	2978540002	CAMERA@285	DEKALB COUNTY GOVERNMENT		0 MEMORIAL DR			DECATUR	GA 30032	1/12/2019	0	88.17	88.17	GS-C		12/11/2018	1/12/2019	45907	46339	1	432	0	0	
475	2995624025	Traffic Lights	DEKALB COUNTY GOVERNMENT		815 CHURCH ST			DECATUR	GA 30032	1/14/2019	0	6.84	6.84	TC		12/12/2018	1/14/2019							
491	3328173005	CAMERA@LUTHER	DEKALB COUNTY GOVERNMENT		0 MEMORIAL DR			DECATUR	GA 30032	1/12/2019	0	88.17	88.17	GS-C		12/11/2018	1/12/2019	45994	46426	1	432	0	0	
295	3698930015	Road & Drainage Field Office	DEKALB COUNTY GOVERNMENT		729 CAMP RD UNIT B			DECATUR	GA 30032	12/19/2018	0	1795.24	1795.24	TUO-MB	3202631	11/18/2018	12/19/2018	12726	13027	80	24080	53	0	
168	3747536011	Road & Drainage Field Office	DEKALB COUNTY GOVERNMENT		727 CAMP RD STE B			DECATUR	GA 30032	12/19/2018	0	551.21	551.21	PLS-C	2984781	11/18/2018	12/18/2018	87923	91230	1	4207	18	14	
288	3802346007	Road & Drainage Field Office	DEKALB COUNTY GOVERNMENT		727 CAMP RD STE A			DECATUR	GA 30032	12/19/2018	0	803.1	803.1	TUO-MB	3136472	11/18/2018	12/18/2018	15279	15530	40	10040	30	0	
5	4593626052	CAMERA	DEKALB COUNTY GOVERNMENT	SECURITY CAMERA	3621 CAMP RD			DECATUR	GA 30032	12/21/2018	0	22.8	22.8	GS-C		11/21/2018	12/21/2018	1107	1117	1	10	0	0	
8	4611067017	NHirston Cam	DEKALB COUNTY GOVERNMENT		0 MEMORIAL DR			DECATUR	GA 30032	12/21/2018	0													



173	293077005	LIFE ENRICHMENT	DEKALB COUNTY GOVERNMENT	1340 MCCONNELL DR UNIT 6105	DECATUR GA 30033	1/10/2019	0	726.25	726.25	PLM-C	3129299	12/7/2018	1/9/2019	4601	4636	120	4200	20	32
177	297277023	Central DeKalb Senior Center	DEKALB COUNTY GOVERNMENT	1400 MCCONNELL DR	DECATUR GA 30033	1/10/2019	0	2320.25	2320.25	PLM-C	3231315	12/7/2018	1/9/2019	5429	5768	40	13560	142	134
392	6849698028	Lou Walker Senior Center	DEKALB COUNTY GOVERNMENT	2538 PANOLA RD	LITHONIA GA 30058	12/31/2018	0	9363.48	9363.48	PLM-C	3139401	11/28/2018	12/30/2018	66176	66770	160	95040	205	258
447	7059445007	Lou Walker Senior Center	DEKALB COUNTY GOVERNMENT	2538 PANOLA RD	LITHONIA GA 30058	1/3/2019	0	2118.99	2118.99	OLUNR		12/3/2018	1/3/2019						
		Health Center - Light Green																	
178	3913631047	DeKalb Medical Specility Center	DEKALB COUNTY GOVERNMENT	2710 N DECATUR RD	DECATUR GA 30033	1/16/2019	0	14.07	14.07	TC		12/14/2018	1/16/2019						
223	8121104012	DeKalb County Medical Center	DEKALB COUNTY GOVERNMENT	2701 N DECATUR RD	DECATUR GA 30033	12/28/2018	0	9.65	9.65	TC		11/28/2018	12/28/2018						
298	5774845005	REDAN CARETAKER	DEKALB COUNTY GOVERNMENT	REDAN CARETAKER	LITHONIA GA 30058	1/15/2019	0	17.24	17.24	RES	4542561	12/13/2018	1/15/2019	3713	3760	1	47	0	0
		Administration - Orange	ACCTNG SVCS/ROBIN MCKNIGHT																
432	1785394015	Tax Commissioner Building	DEKALB COUNTY GOVERNMENT	4380 MEMORIAL DR	DECATUR GA 30032	12/28/2018	0	117.65	117.65	OL GOVT		11/28/2018	12/28/2018						
13	5522105018	Tax Commissioner Building	DEKALB COUNTY GOVERNMENT	4380 MEMORIAL DR	DECATUR GA 30032	1/15/2019	0	17677.3	17677.3	PLM-C	E81913	12/13/2018	1/14/2019	0	0	1	210741	428	430
106	7130836008	ANNEX BUILDING	DEKALB COUNTY GOVERNMENT	727 CAMP RD UNIT 5445	DECATUR GA 30032	12/19/2018	0	473.63	473.63	TOU-MB	3171139	11/18/2018	12/18/2018	12240	12352	40	4480	23	0
277	0323473034	Porter Sanford Performing Art Center	DEKALB COUNTY GOVERNMENT	3181 RAINBOW DR	DECATUR GA 30034	1/7/2019	0	\$ 3,194.75	\$ 3,194.75	OLUNR		12/5/2018	1/7/2019						
292	0609430051	Porter Sanford Performing Art Center	DEKALB COUNTY GOVERNMENT	3181 RAINBOW DR	DECATUR GA 30034	1/3/2019	0	\$ 10,744.17	\$ 10,744.17	PLM-C	3113381	12/2/2018	1/2/2019	84793	85935	120	137040	311	242
		FLEET MAINTENANCE - Purple	DECATUR GA 30030																
378	1444844009	FLEET MAINT	DEKALB COUNTY GOVERNMENT	3043 WARREN RD UNIT 1210	DECATUR GA 30034	1/3/2019	0	2103.98	2103.98	TOU-MB	3138692	12/2/2018	1/2/2019	31474	31828	80	28320	77	0
75	8038845008	FLEET MNT/ACTG	DEKALB COUNTY GOVERNMENT	3043 WARREN RD UNIT 1210	DECATUR GA 30034	1/4/2019	0	22.6	22.6	GS-C	2985991	12/2/2018	1/2/2019	46	48	1	2	0	0
156	8882776023	DeKalb County Fleet Management	DEKALB COUNTY GOVERNMENT	5350 MEMORIAL DR	STONE MOUNTAIN GA 30083	12/19/2018	0	4979.81	4979.81	PLM-C	3180788	11/18/2018	12/18/2018	35054	35330	150	41400	104	152

ACCT-NO	ACCT-ID	ADDRESS	City		Current Due
4051248003	PRESS MON #5	5900 PEACHTREE INDUSTRL BLVD	CHAMBLEE	GA 30341	\$ 225.62
9668781001	PERIMETER L S	4182 DEACON LN	CHAMBLEE	GA 30341	\$ 163.32
6541408008	RESIDENTIAL	1089 CASA DR UNIT 10	CLARKSTON	GA 30021	\$ 23.66
3914758001	ELEV TANK	1127 W HOWARD AVE UNIT 8021	DECATUR	GA 30030	\$ 23.03
0291478030	RESIDENTIAL	2466 VIVIAN CIR	DECATUR	GA 30030	\$ 61.29
0198618030	PRESSURE MONITO	3669 MORELAND AVE	DECATUR	GA 30032	\$ 73.53
1277784005	BOOSTER STATION	3742 MIDVALE RD	DECATUR	GA 30032	\$ 1,767.85
3225745007	ELEVATED TANK	3250 COVINGTON HWY	DECATUR	GA 30032	\$ 176.37
3372756032	DeKalb CO. Watershed Mgt. CIP (Lease)	4572 MEMORIAL DR	DECATUR	GA 30032	\$ 2,798.99
6359840016	WATER TOWER	2522 MCAFEE RD UNIT 8021	DECATUR	GA 30032	\$ 113.86
7193776007	ELEVATED TANK	1901 MASON MILL RD	DECATUR	GA 30033	\$ 53.85
0246700014	RESIDENTIAL	2804 MILLWOOD WAY UNIT 12	DECATUR	GA 30033	\$ 23.55
0003404000	DeKalb County Water & Sewer Plant	4124 FLAKES MILL RD	DECATUR	GA 30034	\$ 8.97
0003408606	DeKalb County Water & Sewer Plant	4124 FLAKES MILL RD	DECATUR	GA 30034	\$ 93,634.70
2966836002	PUMP STATION	3537 WESLEY CHAPEL RD	DECATUR	GA 30034	\$ 2,054.20
0055053015	RESIDENTIAL	3016 FLAT SHOALS RD UNIT 38	DECATUR	GA 30034	\$ 23.43
2853837002	COLUMBIA G S	1770 COLUMBIA DR UNIT WATER	DECATUR	GA 30034	\$ 6,132.21
0463272013	PRESSURE MON 10	5400 COVINGTON HWY	DECATUR	GA 30035	\$ 73.71
8529852004	SCARBROUGH L S	5810 COVINGTON HWY	DECATUR	GA 30035	\$ 264.34
0909191028	Great Faith Ministries Atlanta	1500 AGAPE WAY	DECATUR	GA 30035	\$ 66.33
0003390403	DeKalb County Water & Sewer Plant	2746 LAURELWOOD DR; LIGHTING	DORAVILLE	GA 30340	\$ 1,035.75
5538487003	PRESS MON 15	3588 OAKCLIFF RD	DORAVILLE	GA 30340	\$ 370.32
0111114017	Citgo Gas Station	5417 BUFORD HWY NE	DORAVILLE	GA 30340	\$ 668.27
0003382401	DeKalb County Water & Sewer Plant	4830 WINTERS CHAPEL RD	DORAVILLE	GA 30360	\$ 179,776.89
0202907033	DeKalb County Water & Sewer Plant	4826 WINTERS CHAP RD	DORAVILLE	GA 30360	\$ 23.09
1851211054	LIGHTING	4901 WINTERS CHAPEL RD	DORAVILLE	GA 30360	\$ 174.36

2746237018	DeKalb County Water & Sewer Plant	0 LAURELWOOD RD	DORAVILLE	GA 30360	\$	16.33
8555776002	PUMP STATION	0 WINTERS CHAPEL UNIT 8021	DORAVILLE	GA 30360	\$	251.86
9327806001	DeKalb County Water & Sewer Plant	4830 WINTERS CHAPEL RD	DORAVILLE	GA 30360	\$	27.39
0620786003	DEK CNT GVT FIN	5187 TILLY MILL RD	DUNWOODY	GA 30338	\$	1,153.43
0311411006	PRESSURE MONITO	8200 MALL PKWY	LITHONIA	GA 30038	\$	73.37
0525597022	PRESSURE MONITO	3316 SNAPFINGER RD	LITHONIA	GA 30038	\$	73.63
2703461010	PUMP STATION	4674 BRANDI BAY	LITHONIA	GA 30038	\$	380.43
5303479035	PUMP STATION	5396 BEECHWOOD FOREST DR	LITHONIA	GA 30038	\$	393.99
6923814006	PRESSURE MON #6	3800 BIG MILLER GROVE WAY	LITHONIA	GA 30038	\$	73.45
4433836003	SALEM RD L S	5337 SALEM CT	LITHONIA	GA 30038	\$	262.96
0108174027	RESIDENTIAL	4834 CARLY WAY	LITHONIA	GA 30038	\$	225.10
3803658016	Publix Supermarket ATM	3045 PANOLA RD	LITHONIA	GA 30038	\$	28.12
0003402104	DeKalb County Water & Sewer Plant	4664 FLAT BRIDGE RD	LITHONIA	GA 30058	\$	54,302.42
0003405203	LIGHTING	4664 FLAT BRIDGE RD	LITHONIA	GA 30058	\$	51.38
0869607018	STORAGE TANK	6670 PARKWAY DR	LITHONIA	GA 30058	\$	5,586.49
2607737031	PUMP	6203 WINDY RIDGE TRL	LITHONIA	GA 30058	\$	199.98
3204321007	PRESS MON #2	2826 EVANS MILL RD	LITHONIA	GA 30058	\$	74.71
3204892010	PUMP STATION	2475 OAKLEAF CIR	LITHONIA	GA 30058	\$	151.99
4670825022	PUMP STATION	1300 GREEN RIDGE AVE	LITHONIA	GA 30058	\$	220.01
4834799007	LCC 2 LIFT	1485 ROCK CHAPEL RD	LITHONIA	GA 30058	\$	6,113.66
6451799005	LCC 3 LIFT	7120 MADDOX RD	LITHONIA	GA 30058	\$	6,843.71
7190843001	COMM TOWER	6112 MYSTERY VALLEY LN	LITHONIA	GA 30058	\$	407.73
8320797008	LCC1 LIFT	7364 DRAKE AVE	LITHONIA	GA 30058	\$	5,666.63
0410273335	TS@COVINGTN HWY	7227 COVINGTON HWY	LITHONIA	GA 30058	\$	14.93
8362798014	Rock Chapel Church	1116 ROCK CHAPEL RD	LITHONIA	GA 30058	\$	27.74
7043843024	Street Lights	6094 SHADOW ROCK DR	LITHONIA	GA 30058	\$	236.68
6745799004	EAST LOT GAS	1750 ROGERS LAKE RD	LITHONIA	GA 30058	\$	125.67
0054868003	PUMP STATION	6826 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	723.34
0861520032	PRESSURE MON 7	405 N HAIRSTON RD	STONE MOUNTAIN	GA 30083	\$	74.64
1261775018	PUMP STATION	1391 JULIETTE RD	STONE MOUNTAIN	GA 30083	\$	231.19
1779049027	PUMP STATION	1664 LEWIS WAY	STONE MOUNTAIN	GA 30083	\$	64.89

4182753004	LIFT STATION	1313 STONE MILL WAY	STONE MOUNTAIN GA 30083	\$	235.74
4243773000	BOOSTER STATION	327 SAGEWOOD CIR UNIT 8021	STONE MOUNTAIN GA 30083	\$	22.06
4587837003	LIFT STATION	1099 NEW GIBRALTAR SQ	STONE MOUNTAIN GA 30083	\$	217.51
5763837006	LIFT STATION	930 FOURTH ST	STONE MOUNTAIN GA 30083	\$	309.29
5936764005	GUARD SHACK	1640 ROADHAVEN DR	STONE MOUNTAIN GA 30083	\$	134.15
7527739025	DeKalb County Watershed Management	1640 ROADHAVEN DR	STONE MOUNTAIN GA 30083	\$	673.90
7959759004	DeKalb County Watershed Management	1580 ROADHAVEN DR UNIT 8002	STONE MOUNTAIN GA 30083	\$	24.69
8063771002	ELEVATED TANK	1750 STONE RIDGE DR	STONE MOUNTAIN GA 30083	\$	231.31
8735771005	ROADHAVEN COMPL	1580 ROADHAVEN DR UNIT 8002	STONE MOUNTAIN GA 30083	\$	7,370.38
9239771020	DeKalb County Watershed Management	1641 ROADHAVEN DR	STONE MOUNTAIN GA 30083	\$	2,264.20
0261837003	MAIN BLDG	5384 MANOR DR	STONE MOUNTAIN GA 30083	\$	700.42
1061849019	DeKalb County School Public Safety	5861 MEMORIAL DR	STONE MOUNTAIN GA 30083	\$	751.65
7395760001	Street Lights	4700 CLARION PASS	STONE MOUNTAIN GA 30083	\$	252.04
2893581016	PUMP	565 DOVE LN	STONE MOUNTAIN GA 30087	\$	416.49
7907652007	PRESSURE MON #6	5057 HUGH HOWELL RD	STONE MOUNTAIN GA 30087	\$	74.71
8661836002	PEPPERWOOD L S	780 PEPPERWOOD TRL	STONE MOUNTAIN GA 30087	\$	372.20
3784804005	MEETING HOUSE	1034 STEPHENSON RD	STONE MOUNTAIN GA 30087	\$	12.43
2633836005	LIFT STATION	1300 PANOLA RD UNIT 8021	STONE MOUNTAIN GA 30088	\$	7,122.06
1353833003	WADE WALKER MAI	5585 ROCKBRIDGE RD	STONE MOUNTAIN GA 30088	\$	240.30
0643760016	LIFT STATION	4375 LAWRENCEVILLE HWY	TUCKER GA 30084	\$	288.52
1678774001	TUCKER PUMP STA	4226 LAWRENCEVILLE HWY	TUCKER GA 30084	\$	517.85
9236783000	BOOSTER STATION	2815 HENDERSON RD	TUCKER GA 30084	\$	1,503.29
9468772008	BOOSTER STATION	0 STEEL AT LAWREN UNIT 8021	TUCKER GA 30084	\$	2,987.63
5584775007	CAMPCREEK L S	4877 LAWRENCEVILLE HWY	TUCKER GA 30084	\$	88.99
8333782002	LEEHAVEN L S	2610 OAK AVE	TUCKER GA 30084	\$	205.63
6592775012	Royal ATL 2 L S	4991 S ROYAL ATLANTA DR	TUCKER GA 30084	\$	175.04
7159775002	ROYAL ATL 3 L S	5238 ROYAL WOODS PKWY	TUCKER GA 30084	\$	354.45
8461776007	HAMMERMILL 1 L	4760 HAMMERMILL RD	TUCKER GA 30084	\$	397.13
7285776004	HAMMERMILL 2 L	4880 HAMMERMILL RD	TUCKER GA 30084	\$	34.00
1783776000	HAMMERMILL 3 L	2301 MOUNTAIN INDUSTRIAL	TUCKER GA 30084	\$	183.43
3974859001	LEESHIRE L S	5031 LEESHIRE TRL	TUCKER GA 30084	\$	445.69





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0003390109	Sanitation	2315 CHAMTUCKR RD	CHAMBLEE	GA 30341	\$ 23.22
0195331330	Sanitation	2315 CHAMBLEE TUCKER RD	CHAMBLEE	GA 30341	\$ 23.64
1518782003	N LOT SAN	2315 CHAMBLEE TUCKER RD	CHAMBLEE	GA 30341	\$ 54.79
1539782003	N LOT SAN	2315 CHAMBLEE TUCKER RD	CHAMBLEE	GA 30341	\$ 1,140.51
8720799000	BUFORD SAN	4600 BUFORD HWY UNIT 8110	CHAMBLEE	GA 30341	\$ 143.45
8741799000	BUFORD SAN	4600 BUFORD HWY UNIT 8110	CHAMBLEE	GA 30341	\$ 1,162.65
8762799000	BUFORD SAN	4600 BUFORD HWY UNIT 8110	CHAMBLEE	GA 30341	\$ 23.17
0386581004	Sanitation	3643 CAMP CIRCLE; BUILDING A	DECATUR	GA 30032	\$ 1,703.57
1233158034	Sanitation	3643 CAMP CIR	DECATUR	GA 30032	\$ 28.45
4593674030	Sanitation	3720 LEROY SCOTT DR	DECATUR	GA 30032	\$ 5,107.97
5703128013	WELDING SHOP	799 CAMP RD	DECATUR	GA 30032	\$ 277.89
6183254011	Sanitation	3720 LEROY SCOTT DR	DECATUR	GA 30032	\$ 5,490.00
0175752002	Sanitation	1755 FAIRLAKE DR TRLR 4	DECATUR	GA 30034	\$ 485.29
0291734042	Sanitation	1755 FAIRLAKE DR TRLR 2	DECATUR	GA 30034	\$ 568.95
0439984504	Sanitation	1755 FAIRLAKE DR TRLR 3	DECATUR	GA 30034	\$ 474.75
0687213038	Sanitation	1755 FAIRLAKE DR TRLR 5	DECATUR	GA 30034	\$ 532.38
0895522031	Sanitation	1755 FAIRLAKE DR TRLR 1	DECATUR	GA 30034	\$ 627.85
2643683141	Street Lights	3714 RAINBOW DR	DECATUR	GA 30034	\$ 23.21
6087697010	Sanitation	1755 FAIRLAKE DR	DECATUR	GA 30034	\$ 696.83
0003404608	Sanitation	1750 ROGERS LAKE RD	LITHONIA	GA 30058	\$ 108.15
0993234021	Sanitation	1750 ROGERS LAKE RD	LITHONIA	GA 30058	\$ 23.09
1359177013	Sanitation	1750 ROGERS LAKE RD	LITHONIA	GA 30058	\$ 23.09
6724799004	8133 AC 220 EAS	1750 ROGERS LAKE RD	LITHONIA	GA 30058	\$ 100.61
1803779036	DeKalb CO. Animal Crematory	810 CAMP RD	DECATUR	GA 30032	\$ 306.61
			<b>Total</b>		<b>\$ 19,150.12</b>

ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
0003407501	JAIL TOTALIZED	4425 MEMORIAL DR	DECATUR GA 30032	\$ 90,200.68
1893486051	Street Lights	655 CAMP RD	DECATUR GA 30032	\$ 311.18
			<b>Total</b>	<b>\$ 90,511.86</b>





ACCT-NO	ACCT-ID	ADDRESS	City		Current Due
0003391704	Airport	0 FLIGHTWAY DR	CHAMBLEE	GA 30341	\$ 2,188.85
0303749064	Airport	2200 AIRPORT RD BLDG 2	CHAMBLEE	GA 30341	\$ 413.10
0306252004	Airport	2000 AIRPORT RD	CHAMBLEE	GA 30341	\$ 593.93
0405205183	Airport	2500 AIRPORT RD BLDG 5	CHAMBLEE	GA 30341	\$ 333.38
0648215016	Airport	3303 HARDEE AVE UNIT	CHAMBLEE	GA 30341	\$ 25.01
0711525085	Airport	2400 AIRPORT RD BLDG 4	CHAMBLEE	GA 30341	\$ 532.13
0768951140	Airport	2000 AIRPORT RD	CHAMBLEE	GA 30341	\$ 656.58
0852555018	Airport	2300 AIRPORT RD BLDG 3	CHAMBLEE	GA 30341	\$ 400.60
2599047008	Airport	1983 BRAGG ST	CHAMBLEE	GA 30341	\$ 623.75
4651889006	GATE 5	2000 AIRPORT RD	CHAMBLEE	GA 30341	\$ 23.31
7356782009	AIRFIELD LIGHTS	2000 AIRPORT RD UNIT 8210	CHAMBLEE	GA 30341	\$ 1,625.22
7377782009	ADMIN BLDG 2	2044 AIRPORT RD UNIT 8210	CHAMBLEE	GA 30341	\$ 4,100.03
7608782008	A T-HANGER	3321 HARDEE AVE UNIT 8210	CHAMBLEE	GA 30341	\$ 279.08
7671782001	RUNWAY	3419 HARDEE AVE UNIT 8210	CHAMBLEE	GA 30341	\$ 28.73
7707245026	CAM 120	2823 CHAMBLEE TUCKER RD	CHAMBLEE	GA 30341	\$ 32.35
7755782003	B T-HANGER	0 CORSAIR DR UNIT 8210	CHAMBLEE	GA 30341	\$ 215.91
7902782000	NE AIRPORT GATE	11 CORSAIR DR UNIT 8210	CHAMBLEE	GA 30341	\$ 26.94
8534365009	Airport	4600 BUFORD HWY	CHAMBLEE	GA 30341	\$ 239.61
8699799005	NORTHERN SVC CN	4600 BUFORD HWY UNIT 6116	CHAMBLEE	GA 30341	\$ 1,388.34
8783799000	BUFORD FUEL	4600 BUFORD HWY UNIT 8110	CHAMBLEE	GA 30341	\$ 48.46
9833800006	PDK BEACON LIGH	4400 BUFORD HWY UNIT 8210	CHAMBLEE	GA 30341	\$ 90.05
6999782013	SVC SIGN@FRONT	3915 CLAIRMONT RD UNIT 8210	CHAMBLEE	GA 30341	\$ 82.27
			<b>Total</b>		<b>\$ 13,947.63</b>

ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
<b>0773922017</b>	<b>Parks &amp; Rec. Office</b>	<b>3681 CHESTNUT ST</b>	<b>AVONDALE ESTATES GA 30002</b>	\$ 479.20
2346744010	Parks & Rec. Office	3681 CHESTNUT ST UNIT 6115	AVONDALE ESTATES GA 30002	\$ 743.17
3643030016	Parks & Rec. Office	3681 CHESTNUT ST	AVONDALE ESTATES GA 30002	\$ 467.19
1341295002	CHILDREN PLAYGR	2000 AIRPORT RD	CHAMBLEE GA 30341	\$ 79.40
1871449018	Parks & Rec. Office	2301 DRESDEN DR	CHAMBLEE GA 30341	\$ 273.50
0581155017	N.H. Scott Recreation Center	2230 TILSON RD	DECATUR GA 30032	\$ 1,190.99
1362834009	MIDWAY REC CENT	3201 MIDWAY RD UNIT 6105	DECATUR GA 30032	\$ 585.20
1404834001	MIDWAY MAINT	3181 MIDWAY RD UNIT 6117	DECATUR GA 30032	\$ 23.14
1425834029	Midway Recreation Center	3181 MIDWAY RD UNIT FTBL	DECATUR GA 30032	\$ 343.09
4490837015	LONGDALE PARK	1830 LONGDALE DR	DECATUR GA 30032	\$ 22.51
6659024009	Belvedere Park	3569 LARKSPUR TER	DECATUR GA 30032	\$ 26.57
8606834000	Shoal Creek Park #1	3642 GLENWOOD RD UNIT BSBL2	DECATUR GA 30032	\$ 23.14
9803844009	MARK TRAIL POOL	2230 TILSON RD	DECATUR GA 30032	\$ 38.27
0003411603	Mason Mill Tennis Center	1340 MCCONNELL DR	DECATUR GA 30033	\$ 848.10
5166773007	N DEC YOUTH ASS	872 GAYLEMONT CIR UNIT 6116	DECATUR GA 30033	\$ 67.36
5307776017	DeKalb County Horse Farm	2057 LAWRENCEVILLE HWY	DECATUR GA 30033	\$ 22.90
5349776017	Street Lights	2015 LAWRENCEVILLE HWY	DECATUR GA 30033	\$ 871.41
7329772006	MEDLOCK POOL	872 GAYLEMONT CIR UNIT 6114	DECATUR GA 30033	\$ 40.56
0359925027	Exchange Park Recreation Center	2771 COLUMBIA DR	DECATUR GA 30034	\$ 455.12
0593919183	Exchange Park Recreation Center	2771 COLUMBIA DR	DECATUR GA 30034	\$ 1,460.03
0807431018	Exchange Park Recreation Center	2771 COLUMBIA DR	DECATUR GA 30034	\$ 696.00
0814833013	TOWER 4604	0 COLUMBIA DR	DECATUR GA 30034	\$ 734.51
0898833004	PICNIC PAVILION	2771 COLUMBIA DR UNIT 6117	DECATUR GA 30034	\$ 283.67
0919833006	Exchange Park Recreation Center	2771 COLUMBIA DR UNIT 6117	DECATUR GA 30034	\$ 22.55
1393835009	Oak View Elementary School	3510 OAKVALE RD UNIT 6255	DECATUR GA 30034	\$ 95.45

1663602034	Summergeate Park	3700 COLUMBIA PKWY	DECATUR	GA 30034	\$ 292.03
1859450017	Chapel Hill Park	3985 LEHIGH BLVD	DECATUR	GA 30034	\$ 447.75
3855634082	Exchange Park Recreation Center	2771 COLUMBIA DR	DECATUR	GA 30034	\$ 545.27
0835833004	GREENHOUSE OFF	2765 COLUMBIA DR UNIT 6120	DECATUR	GA 30034	\$ 260.63
0856833004	GREENHOUSE STOR	2701 COLUMBIA DR UNIT 6120	DECATUR	GA 30034	\$ 357.28
0877833004	GREENHOUSE	2701 COLUMBIA DR	DECATUR	GA 30034	\$ 674.15
1523805004	Oak View Elementary School	3510 OAKVALE RD	DECATUR	GA 30034	\$ 821.38
1419783002	N DEKALB ART	5345 ROBERTS DR UNIT 1140	DUNWOODY	GA 30338	\$ 3,441.27
0435569038	Street Lights	2111 MOUNT VERNON RD	DUNWOODY	GA 30338	\$ 788.71
4123189019	BRNSML AQUATIC	4929 BROWNS MILL RD	LITHONIA	GA 30038	\$ 312.27
6302834006	BROWNS MILL REC	5101 BROWNS MILL RD	LITHONIA	GA 30038	\$ 248.61
6491834038	PARK CONCESS #2	5099 BROWNS MILL RD	LITHONIA	GA 30038	\$ 824.35
8483456013	Browns Mill Acquatic Center	4929 BROWNS MILL RD	LITHONIA	GA 30038	\$ 377.00
0675848012	Southeast Athletic Complex	5845 HILLVALE RD	LITHONIA	GA 30058	\$ 67.31
0813949058	Southeast Athletic Complex	5845 HILLVALE RD	LITHONIA	GA 30058	\$ 101.05
0960077016	Redan Recreation Sports Field	1745 PHILLIPS RD	LITHONIA	GA 30058	\$ 719.97
0969847005	SE SOCCER COMPL	5845 HILLVALE RD UNIT 6118	LITHONIA	GA 30058	\$ 417.38
0990847026	Southeast Athletic Complex	5845 HILLVALE RD UNIT 6118	LITHONIA	GA 30058	\$ 1,738.84
2727139006	Rock Chapel Church	1116 ROCK CHAPEL RD REAR	LITHONIA	GA 30058	\$ 22.51
3191842004	LITHONIA POOL	6718 PARKWAY ST UNIT 6114	LITHONIA	GA 30058	\$ 22.74
5006845008	REC CNTR	2484 BRUCE ST UNIT 6105	LITHONIA	GA 30058	\$ 126.58
7307834025	Redan Recreation Sports Field	1745 PHILLIPS RD UNIT BALLF	LITHONIA	GA 30058	\$ 243.65
7328834061	Redan Recreation Center	1839 PHILLIPS RD	LITHONIA	GA 30058	\$ 367.99
7383871008	Southeast Athletic Complex	5845 HILLVALE RD	LITHONIA	GA 30058	\$ 30.70
7455173008	SOCCER	5845 HILLVALE RD	LITHONIA	GA 30058	\$ 31.94
7895834033	Redan Recreation Sports Field	1745 PHILLIPS RD UNIT SOFTB	LITHONIA	GA 30058	\$ 60.58
8320798041	ROCK CHAP PK	1116 ROCK CHAPEL RD	LITHONIA	GA 30058	\$ 148.42
8341798023	CONCESSION	1116 ROCK CHAPEL RD	LITHONIA	GA 30058	\$ 22.88
3443845004	ACCOUNTING SERV	2146 S DESHON RD UNIT B	LITHONIA	GA 30058	\$ 659.92
0108174027	RESIDENTIAL	4834 CARLY WAY			
7127843008	MV IRRIG	6094 SHADOW ROCK DR	LITHONIA	GA 30058	\$ 1,301.62

7442843000	KINGWAY L S	5985 KINGWAY WALK UNIT 8033	LITHONIA GA 30058	\$ 96.64
7064843024	Street Lights	6094 SHADOW ROCK DR	LITHONIA GA 30058	\$ 127.19
5274849003	6118 AC220	5848 HILLVALE RD UNIT MAINT	LITHONIA GA 30058	\$ 95.90
2738844009	EMMIE SMITH	6329 SHADOW ROCK DR	LITHONIA GA 30058	\$ 1,370.27
1483090009	Tobie Grant	644 PARKDALE DR	SCOTSDALE GA 30079	\$ 899.81
1619645038	FB FIELD	400 GLENDALE RD UNIT FBFLD	SCOTSDALE GA 30079	\$ 108.00
2159495004	CONCESSION STAN	400 GLENDALE RD	SCOTSDALE GA 30079	\$ 45.29
4635775007	TOBIE GRANT PL	644 PARKDALE DR UNIT 6114	SCOTSDALE GA 30079	\$ 137.00
4761744016	BALLFIELD	400 GLENDALE RD UNIT BLFLD	SCOTSDALE GA 30079	\$ 13.65
9780774002	TOBIE GRANT CTR	644 PARKDALE DR UNIT 6105	SCOTSDALE GA 30079	\$ 697.53
4545836015	Residential House	608 CATRINA CT	STONE MOUNTAIN GA 30087	\$ 360.60
0822289029	Wade Walker Park	5585 ROCKBRIDGE RD	STONE MOUNTAIN GA 30088	\$ 252.86
3914836037	DeKalb County Parks & Recreation Department	5550 WALKER RD UNIT CONC	STONE MOUNTAIN GA 30088	\$ 280.97
4605156003	Wade Walker Park	5585 ROCKBRIDGE RD	STONE MOUNTAIN GA 30088	\$ 22.46
5593170001	Wade Walker Park	5585 ROCKBRIDGE RD	STONE MOUNTAIN GA 30088	\$ 288.24
4345778005	COFER POOL	4257 N PARK DR UNIT 6114	TUCKER GA 30084	\$ 370.47
6738772002	TUCKER REC CTR	4898 LAVISTA RD UNIT 6105	TUCKER GA 30084	\$ 22.66
0835833004	GREENHOUSE OFF	2765 COLUMBIA DR UNIT 6120	DECATUR GA 30034	\$ 899.81
0856833004	GREENHOUSE STOR	2701 COLUMBIA DR UNIT 6120	DECATUR GA 30034	\$ 108.00
0877833004	GREENHOUSE	2701 COLUMBIA DR	DECATUR GA 30034	\$ 45.29
3784804005	MEETING HOUSE	1034 STEPHENSON RD	STONE MOUNTAIN GA 30087	\$ 12.43
7127843008	MV IRRIG	6094 SHADOW ROCK DR	LITHONIA GA 30058	\$ 360.60
1523805004	<b>Oak View Elementary School</b>	3510 OAKVALE RD	DECATUR GA 30034	\$ 137.00
8362798014	<b>Rock Chapel Church</b>	1116 ROCK CHAPEL RD	LITHONIA GA 30058	\$ 27.74
8404798007	ROCK CHAPEL	1116 ROCK CHAPEL RD	LITHONIA GA 30058	\$ 23.01
0323473034	Porter Sanford Performing Art Center	3181 RAINBOW DR	DECATUR GA 30034	\$ 3,194.75
0609430051	Porter Sanford Performing Art Center	3181 RAINBOW DR	DECATUR GA 30034	\$ 10,744.17
5774845005	REDAN CARETAKER	2146 S DESHON RD UNIT A	LITHONIA GA 30058	\$ 17.24
			<b>Total</b>	<b>\$ 46,127.39</b>



ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
2267876015	Fire Station # 3	100 N CLARENDON AVE	AVONDALE ESTATES GA 30002	\$ 931.96
2707605045	Fire Station # 3	100 N CLARENDON AVE	AVONDALE ESTATES GA 30002	\$ 372.43
1444244027	Fire Station # 19	3253 MERCER UNIVERSITY DR	CHAMBLEE GA 30341	\$ 615.88
7058774009	FIRE 19	3253 MERCER UNIVERSITY DR	CHAMBLEE GA 30341	\$ 714.06
7944782000	FIRE 15	2017 FLIGHTWAY DR UNIT 4625	CHAMBLEE GA 30341	\$ 715.71
9364778002	FIRE 23	1265 BROCKETT RD UNIT 4625	CLARKSTON GA 30021	\$ 1,004.02
3819840002	FIRE-7	1776 DERRILL DR UNIT 4625	DECATUR GA 30032	\$ 532.84
4797989009	Fire Station # 26	2522 MCAFEE RD UNIT FIRE	DECATUR GA 30032	\$ 941.58
7721932017	Fire Station #6	2342 FLAT SHOALS RD	DECATUR GA 30032	\$ 1,308.23
8115773001	FIRE 09	3858 N DRUID HILLS RD	DECATUR GA 30033	\$ 637.37
0603670024	Fire Training Academy	3161 WARREN RD	DECATUR GA 30034	\$ 754.95
0623001007	Fire Training Academy	3161 WARREN RD	DECATUR GA 30034	\$ 438.23
1011259010	Fire Training Academy	1749 FAIRLAKE DR UNIT A	DECATUR GA 30034	\$ 631.97
1486844009	FIRE-MAINT	3161 WARREN RD	DECATUR GA 30034	\$ 151.55
1507844001	FIRE-TOWER	3190 WARREN RD UNIT 4625	DECATUR GA 30034	\$ 745.99
1738844008	FIRE-20	2919 WARREN RD UNIT 4625	DECATUR GA 30034	\$ 691.21
2564913017	Fire Training Academy	1749 FAIRLAKE DR UNIT B	DECATUR GA 30034	\$ 22.54
6936836007	FIRE 16	2750 PLEASANTWOOD RD	DECATUR GA 30034	\$ 700.48
1377783000	FIRE 12	5323 ROBERTS DR UNIT 4625	DUNWOODY GA 30338	\$ 476.36
9505794006	FIRE 21	1090 CROWN POINTE PKWY	DUNWOODY GA 30338	\$ 1,121.62
5900839004	FIRE-14	7207 COVINGTON HWY	LITHONIA GA 30058	\$ 446.99
5921839004	FIRE-14 TRLR	7207 COVINGTON HWY	LITHONIA GA 30058	\$ 23.10
0244449009	Fire Station # 24	4154 REDAN RD UNIT 50	STONE MOUNTAIN GA 30083	\$ 23.57
7045842007	FIRE-24	4154 REDAN RD UNIT 4625	STONE MOUNTAIN GA 30083	\$ 1,263.56
7151843003	FIRE 11	6715 MEMORIAL DR UNIT 4625	STONE MOUNTAIN GA 30083	\$ 573.22

8660836008	FIRE 13	5619 REDAN RD UNIT 4625	STONE MOUNTAIN	GA 30088	\$ 408.55
0387778001	FIRE 22	1859 MONTREAL RD UNIT 4625	TUCKER	GA 30084	\$ 939.93
0402645032	DeKalb County Fire Headquarters	1950 W EXCHANGE PL	TUCKER	GA 30084	\$ 34.94
3377210004	DeKalb County Fire Headquarters	1950 W EXCHANGE LN	TUCKER	GA 30084	\$ 1,473.71
3735781006	FIRE 05	4013 LAWRENCEVILLE HWY	TUCKER	GA 30084	\$ 348.97
9922106008	DeKalb County Fire Headquarters	1950 W EXCHANGE PL	TUCKER	GA 30084	\$ 38,903.52
			<b>Total</b>		<b>\$ 57,949.04</b>

ACCT-NO	ACCT-ID	ADDRESS	City		Current Due
0111641037	PEDLIGHTS / <b>Church's Chicken</b>	4995 BUFORD HWY	CHAMBLEE	GA 30341	\$ 623.37
1853992034	<b>Shopping Center</b>	4795 BUFORD HWY	CHAMBLEE	GA 30341	\$ 634.36
0003370009	Traffic Signal	0 TRAFFIC CONTROLS	DECATUR	GA 30030	\$ 1,424.71
0003404500	Traffic Signal	0 TRFC SGNL S DKLB	DECATUR	GA 30030	\$ 1,549.38
0003411505	Traffic Signal	0 TR SIGNALS TUCKER	DECATUR	GA 30030	\$ 1,568.58
0531816038	CAM 100	0 SCOTT BLVD	DECATUR	GA 30030	\$ 32.27
4107940021	CAM 102	859 CLAIRMONT AVE	DECATUR	GA 30030	\$ 32.20
5608135025	CAM 101	1486 SCOTT BLVD	DECATUR	GA 30030	\$ 31.62
5171282022	<b>RESIDENTIAL</b>	2193 SCOTT BLVD	DECATUR	GA 30030	\$ 31.62
0003361402	Traffic Signal	3361 CAMP RD ST LTS	DECATUR	GA 30032	\$ 668.02
0228047014	Traffic Signal	3629 CAMP WAY	DECATUR	GA 30032	\$ 22.80
0691254038	CAM 7	0 MEMORIAL DR	DECATUR	GA 30032	\$ 31.83
2223056015	CAMERA	727 CAMP RD	DECATUR	GA 30032	\$ 22.80
2978540002	CAMERA@285	0 MEMORIAL DR	DECATUR	GA 30032	\$ 88.17
2995624025	Traffic Lights	815 CHURCH ST	DECATUR	GA 30032	\$ 6.84
3328173005	CAMERA@LUTHER	0 MEMORIAL DR	DECATUR	GA 30032	\$ 88.17
4593626052	CAMERA	3621 CAMP RD	DECATUR	GA 30032	\$ 22.80
4611067017	NHairston Cam	0 MEMORIAL DR	DECATUR	GA 30032	\$ 25.61
7413138036	CAM 2	4623 MEMORIAL DR	DECATUR	GA 30032	\$ 24.21
7527016009	RAYS RD CAM	0 MEMORIAL DR	DECATUR	GA 30032	\$ 25.61
7995539008	VILLGSQUDR CAM	0 MEMORIAL DR	DECATUR	GA 30032	\$ 25.61
8427761008	HAMBRICK RD CAM	0 MEMORIAL DR	DECATUR	GA 30032	\$ 25.61
1984687015	<b>Mrs. Winners Chicken &amp; Biscuits</b>	4499 GLENWOOD RD	DECATUR	GA 30032	\$ 29.79
2019709303	<b>RESIDENTIAL</b>	3511 SHERRYDALE LN UNIT	DECATUR	GA 30032	\$ -
0193697059	CAM 52	1145 N DRUID HILLS RD	DECATUR	GA 30033	\$ 31.86

0269250026	CAM 30	1910 LAWRENCEVILLE HWY	DECATUR	GA 30033	\$	31.62
5627543029	CAM 56	3300 N DRUID HILLS RD	DECATUR	GA 30033	\$	31.62
5988028025	CAM 50	2148 LAWRENCEVILLE HWY	DECATUR	GA 30033	\$	31.81
7565524028	CAM 51	3861 N DRUID HILLS RD	DECATUR	GA 30033	\$	31.62
0053258021	Traffic Signal	1561 SCOTT BLVD	DECATUR	GA 30033	\$	55.38
2903220086	<b>RESIDENTIAL</b>	846 GAYLEMONT CIR	DECATUR	GA 30033	\$	9.66
0053258021	<b>Traffic Signal</b>	1561 SCOTT BLVD	DECATUR	GA 30033	\$	55.38
1243683044	TS @ Scott Blvd	1561 SCOTT BLVD	DECATUR	GA 30033	\$	26.88
0681082191	<b>Walgreens</b>	2781 LAVISTA RD	DECATUR	GA 30033	\$	32.29
0551362013	<b>Church's Chicken</b>	3632 FLAKES MILL RD	DECATUR	GA 30034	\$	13.74
2343073032	<b>Kroger Supermarket Shopping Center</b>	4919 FLAT SHOALS PKWY	DECATUR	GA 30034	\$	13.80
0003364609	LIGHTING	3043 WARREN RD	DECATUR	GA 30034	\$	268.83
7542371001	<b>Chiefs Fubot Club</b>	3650 PLEASANTDALE RD	DORAVILLE	GA 30340	\$	3,392.73
0108417036	<b>Chiefs Fubot Club</b>	3650 PLEASANTDALE RD	DORAVILLE	GA 30340	\$	266.24
0871364037	PEDLIGHTS	5215 BUFORD HWY	DORAVILLE	GA 30340	\$	604.43
2683986014	<b>Street Lights</b>	5574 ROCK SPRINGS RD	LITHONIA	GA 30038	\$	21.83
3803658016	<b>Publix Supermarket ATM</b>	3045 PANOLA RD	LITHONIA	GA 30038	\$	28.12
0410273335	TS@COVINGTN HWY	7227 COVINGTON HWY	LITHONIA	GA 30058	\$	14.93
0410273335	TS@COVINGTN HWY	7227 COVINGTON HWY	LITHONIA	GA 30058	\$	14.93
1618639045	CAM 8	6350 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	31.62
3309315047	CAM 5	5550 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	31.62
4126245032	CAM 3	4820 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	31.62
7394218044	CAM 4	5158 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	31.62
0136187034	<b>Capital City Bank</b>	5674 MEMORIAL DR	STONE MOUNTAIN	GA 30083	\$	31.62
0315404034	CAM 160	1535 HUGH HOWELL RD	TUCKER	GA 30084	\$	32.20
0883276079	Traffic Signal	2184 NORTHLAKE PKWY	TUCKER	GA 30084	\$	27.40
7823135009	Traffic Signal	3400 LAVISTA RD	TUCKER	GA 30084	\$	14.79
207463027	STREETSCAPES	0 LAVISTA RD	TUCKER	GA 30084	\$	3,394.86
0918102048	<b>Sun Trust Bank</b>	4098 LAVISTA RD	TUCKER	GA 30084	\$	200.20
			<b>Total</b>		<b>\$</b>	<b>15,841.23</b>







ACCT-NO	ACCT-ID	ADDRESS	City		Current Due
1688126008	North DeKalb CO. Senior Center	3393 MALONE DR	CHAMBLEE	GA 30341	\$ 2,385.18
4049278019	South DeKalb Senior Center	1931 CANDLER RD	DECATUR	GA 30032	\$ 2,142.20
0136231028	Central DeKalb Senior Center	1356 MCCONNELL DR UNIT	DECATUR	GA 30033	\$ 82.65
0836544006	Central DeKalb Senior Center	1346 MCCONNELL DR	DECATUR	GA 30033	\$ 4,501.08
0883052006	Central DeKalb Senior Center/Tennis Court Lights	1340 MCCONNELL DR UNIT DS	DECATUR	GA 30033	\$ 453.65
1550329042	Central DeKalb Senior Center/Tennis Court Lights	1340 MCCONNELL DR	DECATUR	GA 30033	\$ 17.43
2803006002	Central DeKalb Senior Center/Tennis Court Lights	1340 MCCONNELL DR UNIT	DECATUR	GA 30033	\$ 29.42
2830989003	Central DeKalb Senior Center/Tennis Court Lights	1340 MCCONNELL DR	DECATUR	GA 30033	\$ 1,027.37
2930777005	LIFE ENRICHMENT	1340 MCCONNELL DR UNIT 6105	DECATUR	GA 30033	\$ 726.25
2972777023	Central DeKalb Senior Center	1400 MCCONNELL DR	DECATUR	GA 30033	\$ 2,320.25
6849698028	Lou Walker Senior Center	2538 PANOLA RD	LITHONIA	GA 30058	\$ 9,363.48
7059445007	Lou Walker Senior Center	2538 PANOLA RD	LITHONIA	GA 30058	\$ 2,118.99
			<b>Total</b>		<b>\$ 25,167.95</b>



ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
1444844009	FLEET MAINT	3043 WARREN RD UNIT 1210	DECATUR GA 30034	\$ 2,103.98
8038845008	FLEET MNT/ACTG	3043 WARREN RD UNIT 1210	DECATUR GA 30034	\$ 22.60
8882776023	DeKalb County Fleet Management	5350 MEMORIAL DR	STONE MOUNTAIN GA 30083	\$ 4,979.81
			<b>Total</b>	<b>\$ 7,106.39</b>

ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
3539840002	FORENSIC CENTER	3550 KENSINGTON RD	DECATUR GA 30032	\$ 4,757.15
			<b>Total</b>	<b>\$ 4,757.15</b>

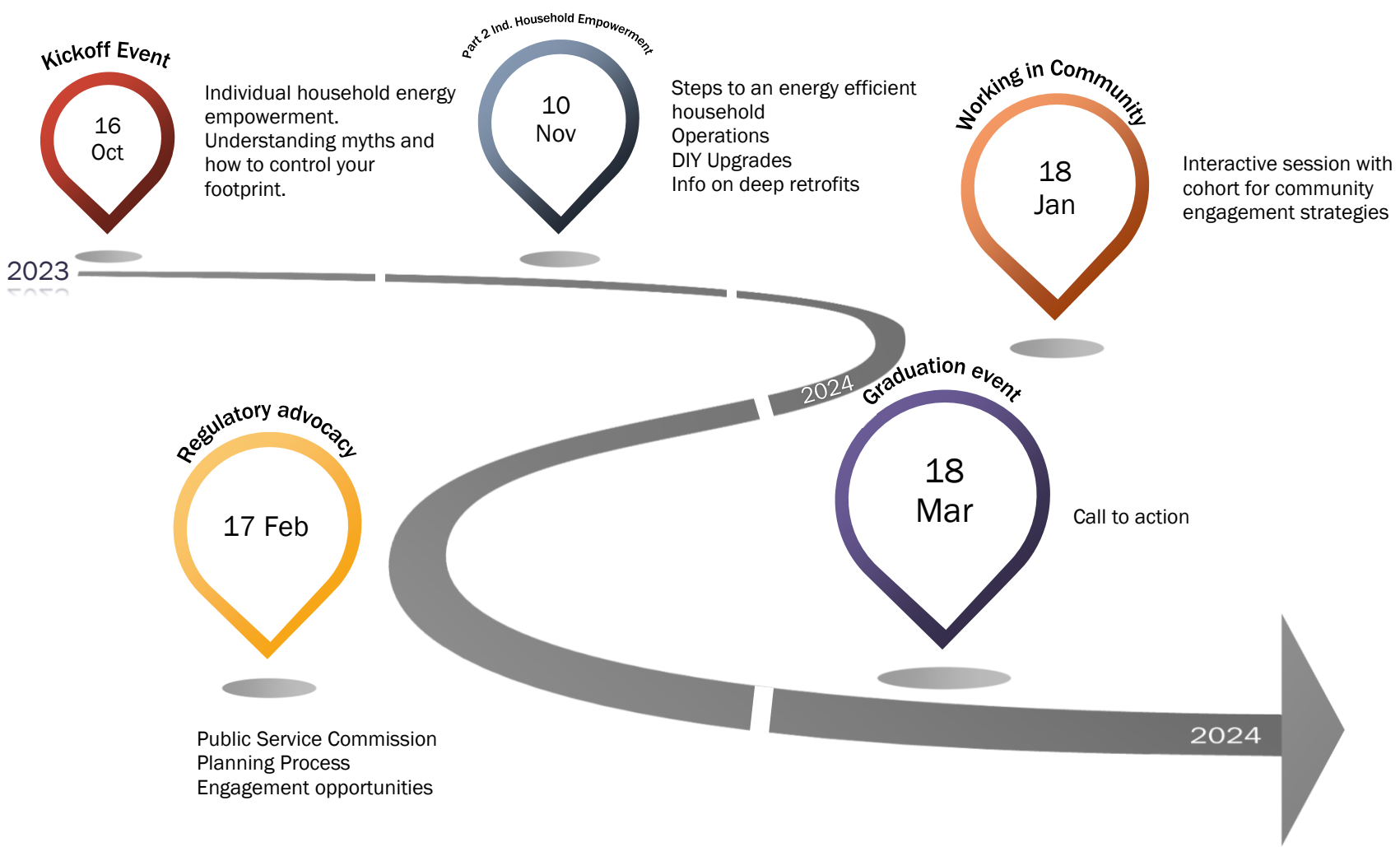




ACCT-NO	ACCT-ID	ADDRESS	City		Current Due
3081846034	Public Defender Law Office	320 CHURCH ST	DECATUR	GA 30030	\$ 69.61
8868752003	COURTHOUSE	556 N MCDONOUGH ST	DECATUR	GA 30030	\$ 94,376.41
9565746017	Public Defender Law Office	320 CHURCH ST	DECATUR	GA 30030	\$ 1,086.55
6242709008	Code Enforcement	1807 CANDLER RD SE	DECATUR	GA 30032	\$ 542.43
8880836008	RECORDS	3508 COVINGTON HWY	DECATUR	GA 30032	\$ 1,613.25
0465370012	DeKalb CO. Police Bobby Burgess	4400 MEMORIAL DR	DECATUR	GA 30032	\$ 411.79
1368743025	DeKalb CO. Records Court	701 CAMP RD	DECATUR	GA 30032	\$ 1,205.88
1809335010	DeKalb CO. Police Bobby Burgess	4400 MEMORIAL DR	DECATUR	GA 30032	\$ 1,338.06
			<b>Total</b>		<b>\$ 100,643.98</b>

<b>ACCT-NO</b>	<b>ACCT-ID</b>	<b>ADDRESS</b>	<b>City</b>	<b>Current Due</b>
1785394015	Tax Commissioner Building	4380 MEMORIAL DR	DECATUR GA 30032	\$ 117.65
5522105018	Tax Commissioner Building	4380 MEMORIAL DR	DECATUR GA 30032	\$ 17,677.30
			<b>Total</b>	<b>\$ 17,794.95</b>

ACCT-NO	ACCT-ID	ADDRESS	City	Current Due
3913631047	DeKalb Medical Specilty Center	2710 N DECATUR RD	DECATUR GA 30033	\$ 14.07
8121104012	DeKalb County Medical Center	2701 N DECATUR RD	DECATUR GA 30033	\$ 9.65
			<b>Total</b>	<b>\$ 23.72</b>





## DeKalb Clean Energy Transportation Transition Plan: Community Climate Champions (C3)

### Alternative engagement strategy

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**Goal:** Build a cohort of C3 activists capable of acting at individual, community, and state levels.

**Tactic:** Rather than Community input meetings likely attended by community members already engaged in energy issues, recruit through commission and stakeholders, a cohort of diverse community voices already respected in their community for detailed sessions on energy.

#### **Session syllabi:**

**Individual Level:** Session 1: Conducted by Southface Education team. Mythbusting energy advice and sales pitches. Detailed utility tracking, comparison, and budgeting. Evaluation of equipment and appliances for energy consumption. Tracking energy vampires.

Session 2: Evaluating energy improvement projects. DIY techniques for air and duct sealing. In-field techniques for evaluating energy by-passes, envelope efficacy, and ventilation safety.



Includes training manual and reference guides.

**Community Level:** Session 3: Conducted by IB Environmental (LSBE). Interactive session building on participant's experience with community change. Documenting outlets for community change in the energy sector. Organizing techniques for community help projects. Evaluation techniques for weatherization advice to community members. Utility cost tracking techniques and community advice for self-advocacy.



**State Level:** Session 4: Conducted by Southface Advocacy Team. Baseline State Regulatory structures, State agencies acting in the energy sector, and organizations advocating in the sector. Baseline Public Service Commission (PSC) roles, responsibilities, and actions. PSC planning sequences and community input opportunities and techniques.



**Graduation celebration:** Session 5: Event to recognize participants and create connections to DeKalb departments and organizations in participant's area of interest and action.

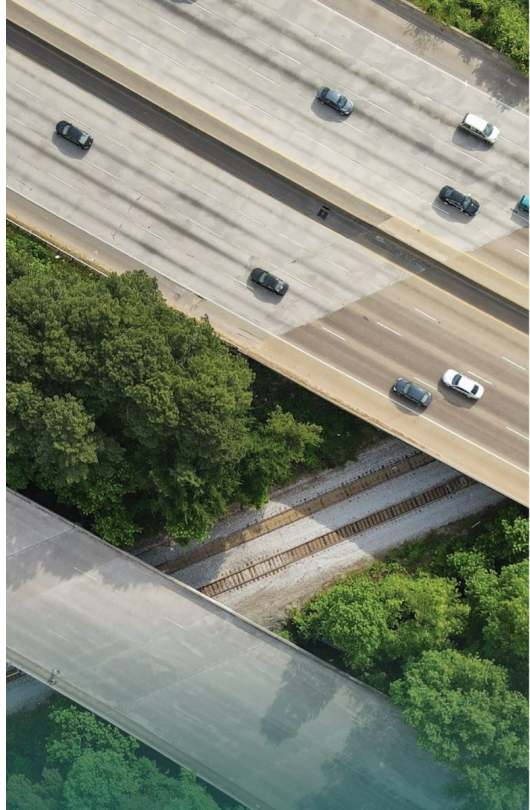




# Southface

Dekalb County Clean Energy  
Transportation Transition Plan

Start date: June 22, 2023



RFP No. 22-500610

# Clean Energy Transportation Transition Plan



Proposal #P22-500610  
July 20, 2022

**Submitted To**

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Department of Purchasing  
and Contracting  
1300 Commerce Drive, 2nd  
Floor  
Decatur, GA 30030

**Attention**

---

Michele L. Smith  
Email: [mlsmith1@  
dekalbcountyga.gov](mailto:mlsmith1@dekalbcountyga.gov)

**Submitted By**

---



241 Pine St  
Atlanta, GA 30308  
Contact: Laura Case  
Phone: (404) 872-3549  
Email: [lcase@southface.org](mailto:lcase@southface.org)

**In Partnership With**

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# The partners



# Project task breakdown

Task	Description	Project %	Project \$	Lead	Clean Cities Georgia	Energetics	Southface Institute	Cherry Street Energy	IB Environmental
Task 1	Recommendations on addressing DeKalb's Clean Energy Goals	5%	\$12,500	Energetics / Southface	0%	50%	50%	0%	0%
Task 2	Recommendations on Energy Efficient methods to meet the County's Energy Needs	5%	\$12,500	Energetics / Southface	0%	50%	50%	0%	0%
Task 3	Analysis of DeKalb County's municipal solar potential	5%	\$12,500	Cherry St	0%	0%	0%	100%	0%
Task 4	Recommendations on Increasing Equity and addressing energy burden within the County	8%	\$20,000	ibE	0%	20%	20%	0%	60%
Task 5	Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process	15%	\$37,500	Southface	0%	0%	75%	0%	25%
Task 6	Assistance in Development of a Clean Electricity and Vehicle Procurement Strategy	8%	\$20,000	Energetics / CC-GA	50%	50%	0%	0%	0%
Task 7	Creation, education and engagement of a DeKalb Climate Task Force	5%	\$12,500	Southface	0%	40%	60%	0%	0%
Task 8	Development of Greenhouse Gas Inventory for County Govt facilities and fleet, and community county-wide	15%	\$37,500	Energetics / ibE	0%	60%	0%	0%	40%
Task 9	Development of clear benchmarks and milestones for the County during the transition to 100% clean and renewable energy and transportation. Including data analysis, equity mapping and forecasting models.	15%	\$37,500	Energetics / Southface	0%	40%	40%	0%	20%
Task 10	Development of a clear process whereby the County Commission will receive updates on progress and take steps to hit benchmarks	5%	\$12,500	Energetics / Southface	0%	45%	45%	0%	10%
Task 11	Deliver final draft transition plan report to the Chief Executive Officer & Board of Commissioners	14%	\$35,000	Southface	5%	40%	40%	0%	15%
		<b>100%</b>	<b>\$250,000</b>						

# Project schedule

	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14			
Task	Description	22-Jun	22-Jul	22-Aug	22-Sep	22-Oct	22-Nov	22-Dec	22-Jan	22-Feb	22-Mar	22-Apr	22-May	22-Jun	22-Jul	Project %	Project \$	Lead
PM	Internal Team Meetings (monthly)																	Southface
	Subtask: Update Commissioner on progress after each public meeting																	
SC	Steering Committee Meetings (monthly)																	Southface
	Sub-committee Meetings (ad hoc)																	Southface
Task 1	Recommendations on addressing DeKalb's Clean Energy Goals															5%	\$12,500	Energetics/ Southface
Task 2	Recommendations on Energy Efficient methods to meet the County's Energy Needs															5%	\$12,500	Energetics/ Southface
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Task 10	Development of a clear process whereby the County Commission will receive updates on progress and take steps to hit benchmarks															5%	\$12,500	Energetics/ Southface
Task 11	Deliver final draft transition plan report to the Chief Executive Officer & Board of Commissioners by August 1, 2024															14%	\$35,000	Southface

# Project tasks

1. Recommendations on addressing DeKalb's Clean Energy Goals
2. Recommendations on Energy Efficient methods to meet the County's Energy Needs

## How to transition to clean energy



Educate community  
& stakeholders



Collaborate with  
residents, businesses,  
& institutions



Set goals and track  
progress



Invest in solar energy  
& other renewable  
sources



Reduce energy use  
through efficiency  
upgrades



Reduce reliance on  
fossil fuels

### 3. Analysis of DeKalb County's municipal solar potential



C H E R R Y  
- - - - -  
S T R E E T  
- - - - -  
E N E R G Y



# 4. Recommendations on Increasing Equity and addressing energy burden within the County

- Development of an energy equity map



## 5. Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process

- Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)
- Monthly meetings
- Weekly working groups



## 6. Assistance in Development of a Clean Electricity and Vehicle Procurement Strategy



# 7. Creation, education and engagement of a DeKalb Climate Task Force



## 8. Development of Greenhouse Gas Inventory for County Govt facilities and fleet, and community county-wide





## **9. Development of clear benchmarks and milestones for the County during the transition to 100% clean and renewable energy and transportation**

- Develop ACES model
- Create access to a comprehensive Equity Mapping Platform
- Complete a correlational study of the underlying conditions of energy burden
- Develop a simplified forecasting model
- Project economic development and industry impacts

## 10. Development of a clear process whereby the County Commission will receive updates on progress and take steps to hit bench



# 11. Deliver final draft transition plan report to the Chief Executive Officer & Board of Commissioners



DeKalb County  
G E O R G I A



Questions?

# The Process



Initiate stakeholder and community engagement:

- Develop stakeholder engagement approach
- Develop community engagement approach using previous Decatur processes and the engagement squad ensuring a diverse engagement

Host stakeholder and community conversations (depending on COVID realities - can be held virtually or in-person)

- 1:1s with businesses and orgs
- Community-wide kickoff and roundtables with facilitators
- Youth engagement through canvassing

Review feedback from community and stakeholders

- Capture priorities and values of Decaturites
- Consider diverse energy system, policy, and program scenarios
- Release summary findings for community review

Develop Plan

- Select feasible scenarios based on engagement input, analytics from Greenlink, and team knowledge
- Draft and refine Clean Energy Plan, publishing 3 rounds of drafts
- Finalize and deliver Clean Energy Plan

Plan Enactment and Implementation

- Next Steps
- Develop and finalize toolkit and resources for education
- Policy, Programs & Technology



**DEKALB**

# **GREEN NEW DEAL**

OCTOBER 14, 2023

**SUMMIT**





Dekalb County Clean Energy  
Transportation Transition Plan

Community Engagement Session 1



# Southface Institute

- **Nonprofit** delivering practical building and infrastructure solutions to environmental challenges since 1978
- **Eco-Office** with green roof in Atlanta
- New **Southface Sarasota** satellite location
- About **40 Southfacers** who have 50+ professional certifications total
- **Sustainable solutions** that work for everyone



# The partners



# Project tasks

1. Recommendations on addressing DeKalb's Clean Energy Goals
2. Recommendations on Energy Efficient methods to meet the County's Energy Needs

## How to transition to clean energy



Educate community  
& stakeholders



Collaborate with  
residents, businesses,  
& institutions



Set goals and track  
progress



Invest in solar energy  
& other renewable  
sources



Reduce energy use  
through efficiency  
upgrades



Reduce reliance on  
fossil fuels



### 3. Analysis of DeKalb County's municipal solar potential



CHERRY  
STREET  
ENERGY

# 4. Recommendations of increasing Equity and addressing energy burden within the County

- Development of an energy equity map



## 4. Recommendations of Increasing Equity and addressing energy burden with the County

- Community Climate Champions



## 5. Public Stakeholder Inclusion for a Open, Inclusive, and Transparent Planning Process

- Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)
- Monthly meetings
- Weekly working groups



## 5. Public Stakeholder Inclusion for a Open, Inclusive, and Transparent Planning Process

- Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)
- Survey





## 6. Assistance in Development of a Clean Electricity and Vehicle Procurement Strategy



# 7. Creatiofi, educatiofi afid efigagemefit of a DeKalb Climate Task Force



## 8. Development of Greenhouse Gas Inventory for County Govt facilities and fleet, and community county-wide



## **9. Development of clear benchmarks and milestones for the County during the transition to 100% clean and renewable energy and transportation**

- Develop scenarios
- Create access to a comprehensive Equity Mapping Platform
- Complete a correlational study of the underlying conditions of energy burden
- Develop a simplified forecasting model
- Project economic development and industry impacts

**10. Development of a clear process whereby the County Commission will receive updates of progress and take steps to hit benchmarks**





**11. Deliver final draft transition plan report to the Chief Executive Officer & Board of Commissioners**



DeKalb County  
G E O R G I A

## Mentimeter question

---

Do you have any issues with your windows?

- No - I never open them
- Yes - Broken
- Yes - They waste energy
- Yes - I feel cold around them

## MYTH #1

Replace windows to save money



# Storm Windows

- Inside or Outside
- Noise
- Low-E

Improvement	Cost
Replacing Window	\$1500 or \$300/window
Installing Storm Window	\$500 or \$100/Window
Adding on Tax Credit	-30% or -\$150 = \$350 or \$70/window

EQUIPMENT TYPE	TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS		
<b>Heating, Cooling, and Water Heating</b>			
Air-source heat pumps	30% of cost, up to \$2,000 per year	\$2000/yr max	
Heat pump water heaters			
Biomass stoves			
Efficient air conditioners	30% of cost, up to \$600	\$1200/yr max	
Efficient heating equipment			
Efficient water heating equipment	30% of cost, up to \$600	\$3200/yr max	
<b>Other Energy Efficiency Upgrades</b>			
Electric panel or circuit upgrades for new electric equipment	30% of cost, up to \$600		
Insulation materials	30% of cost		
Windows, including skylights	30% of cost, up to \$600		
Exterior doors	30% of cost, up to \$500 for doors (up to \$250 each)		
Home Energy Audits	30% of cost, up to \$150		
Home Electric Vehicle Charger	30% of cost, up to \$1,000		

Measures eligible for the Energy Efficient Home Improvement (25C) Credit. Adapted from the US Department of Energy.



## Mentimeter question

---

Have you gotten calls trying to sell Solar

Panels Yes

No



## MYTH #2

Solar Energy is free





- 25D credits can be used for new and existing homes.

EQUIPMENT TYPE	TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS
<b>Home Clean Electricity Products</b>	
Solar (electricity)	30% of cost
Fuel Cells	
Wind Turbine	
Battery Storage	
<b>Heating, Cooling, and Water Heating</b>	
Geothermal heat pumps	30% of cost
Solar (water heating)	

Measures eligible for the Residential Clean Energy (25D) Credit.  
Adapted from the US Department of Energy.

2020 Price per watt from Solarize Decatur DeKalb Campaign

# Residential Campaign Information

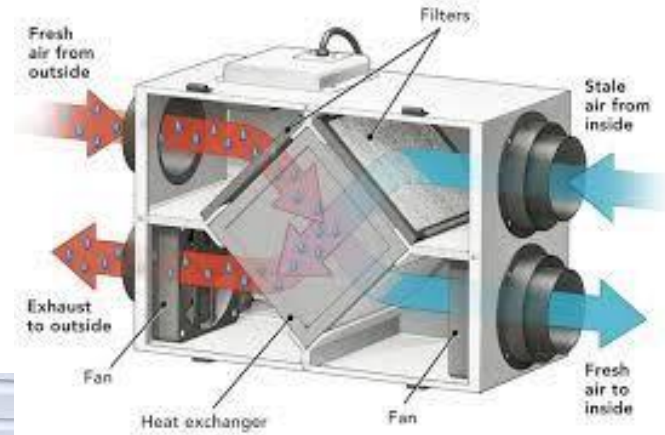
CAMPAIGN EXCLUSIVE TIERED PRICING (Aggregate kw)



[www.solarcrowdsource.com](http://www.solarcrowdsource.com)

# MYTH #3

## House has to breathe



Credit : Energy Vanguard





## Crawlspace seal precautions

Radon!!!!!!!

Moisture- mold

Natural Draft Furnace & Water heater

Hazardous Material-Asbestos

<https://basc.pnnl.gov/information/pr-assessment-crawlspaces-and-basem>

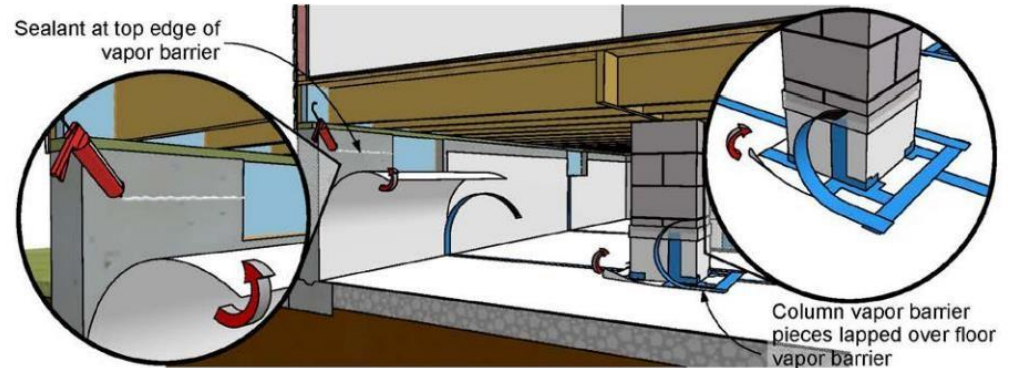


Figure 22. Apply poly vapor barrier, and lap and seal the seams



Report  
out!!

Please spend a few minutes working with your  
table mates answering the following questions?

-Please record on the sheets provided

Who in your community would benefit most from  
this information??

In your community work, what are your most  
effective ways to empower community members  
with information?



# Mentimeter Question

When was the last time you used your fireplace

- Whenever cold weather is expected
- The last ice storm
- A romantic night at home
- Christmas morning in 19.....



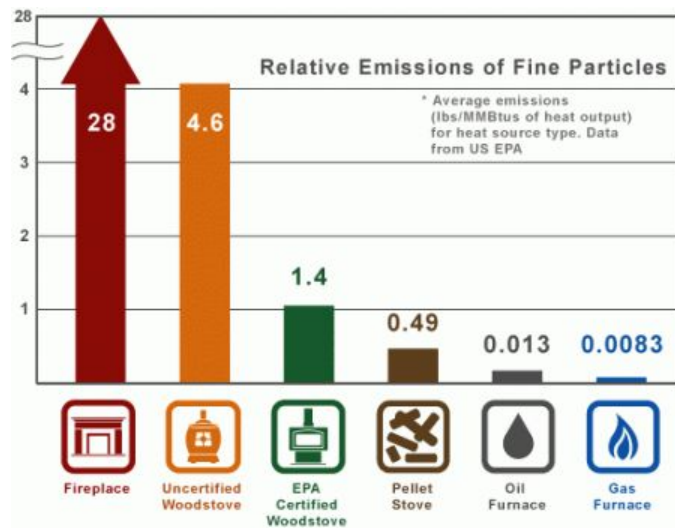
Credit : Omni Grove Park Inn

## MYTH #4

Fireplace heat can substitute

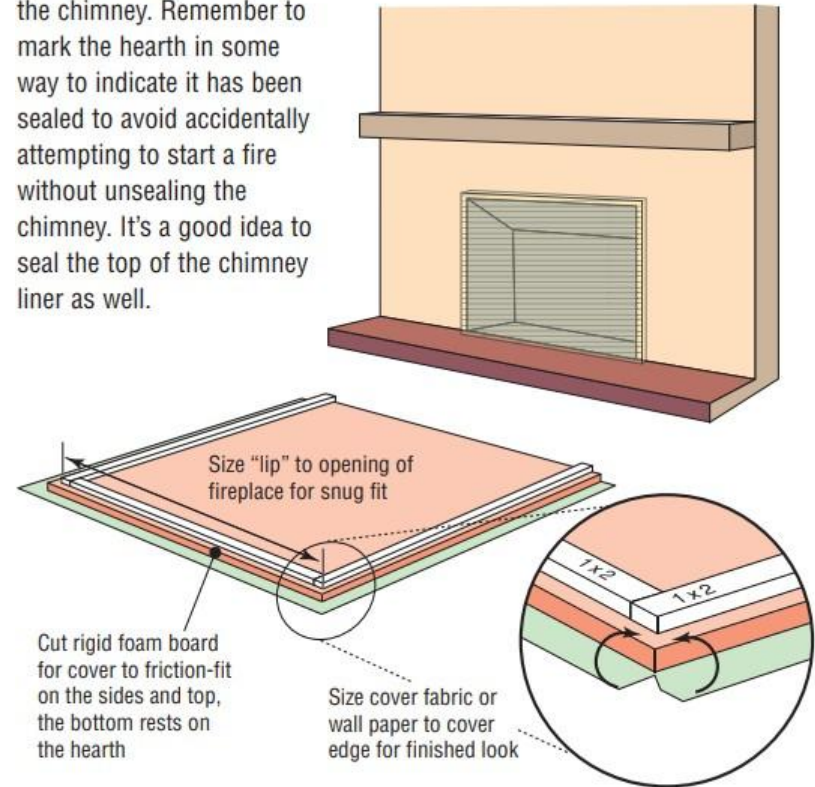






## Have a Fireplace That is Not Being Used?

Closing the damper reduces room air escaping up the chimney to a degree but it is best to tightly seal the chimney. Use any rigid material such as insulation board and caulk to create a semi-permanent seal over the chimney opening. Another option is to use a specially designed product such as an inflatable air-pillow to seal the chimney. Remember to mark the hearth in some way to indicate it has been sealed to avoid accidentally attempting to start a fire without unsealing the chimney. It's a good idea to seal the top of the chimney liner as well.



## Mentimeter Question

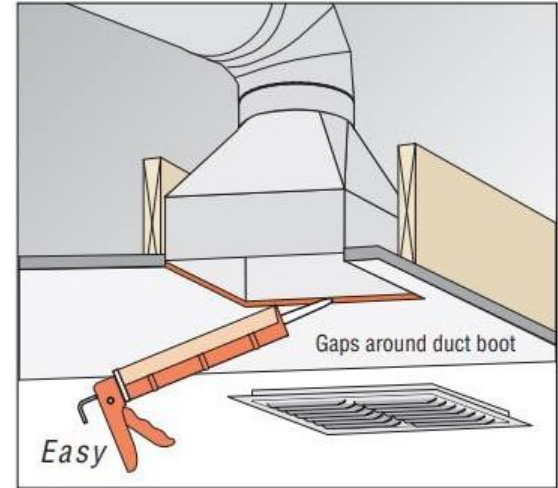
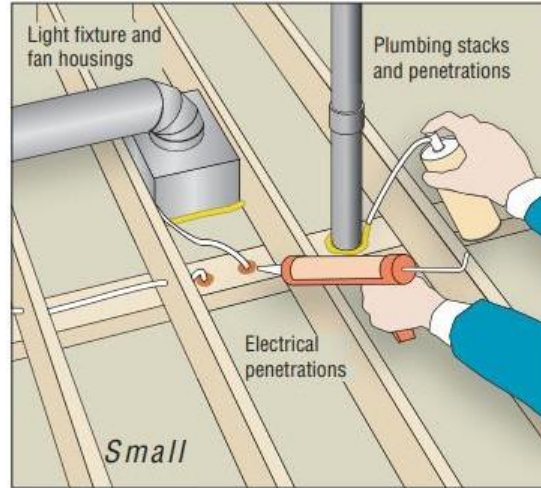
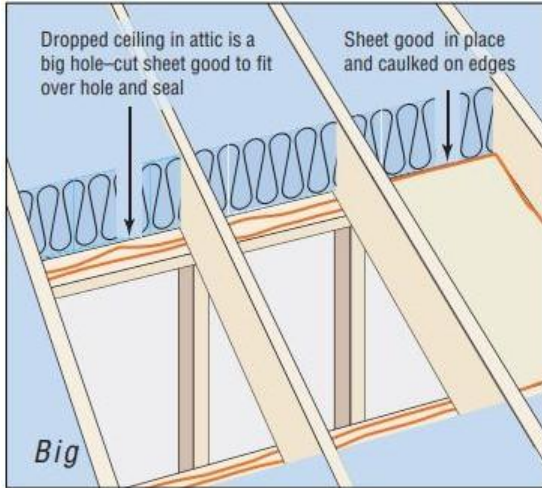
Is your HVAC fan set to AUTO or ON



# MYTH #5

More insulation is better

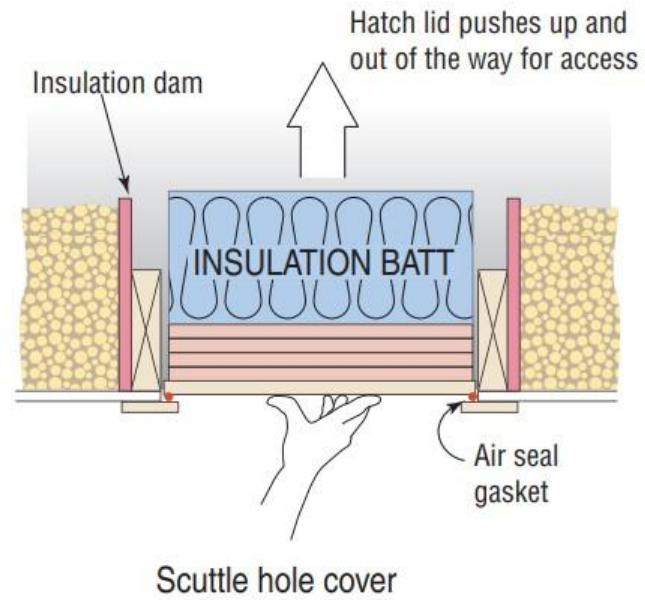
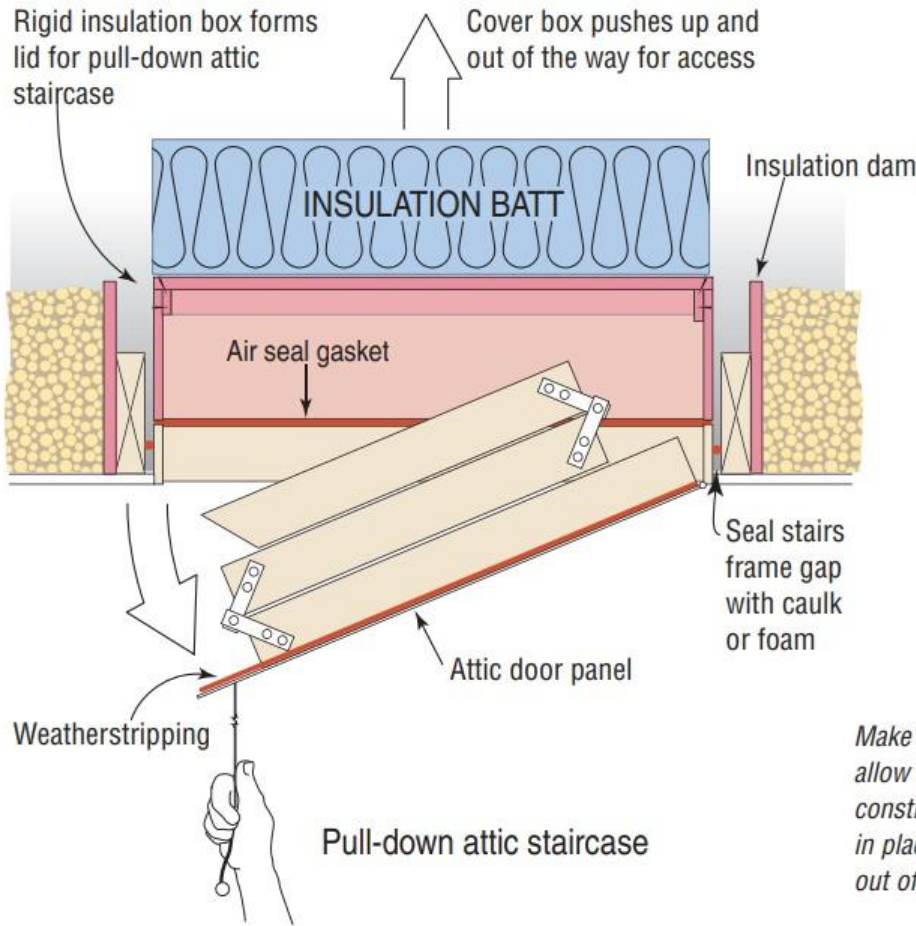




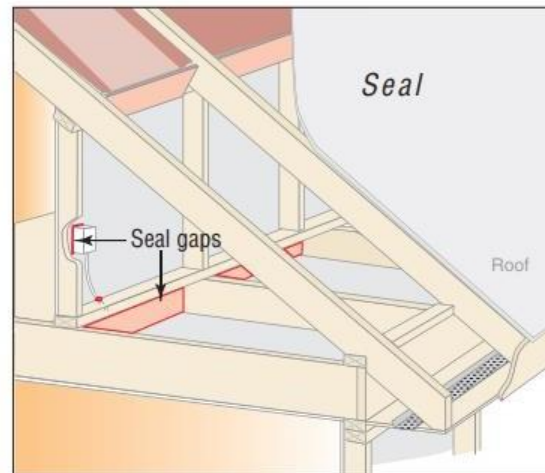
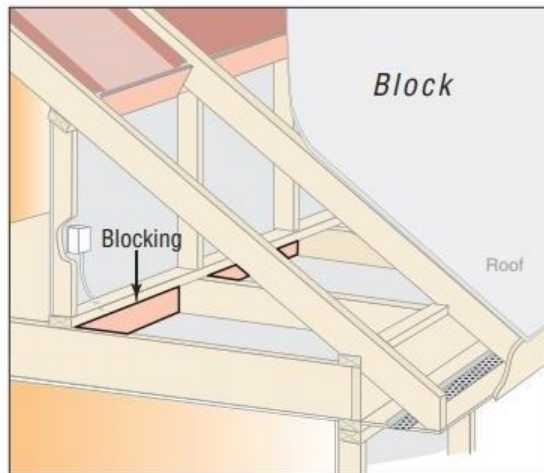
*One rule is that if you are in the attic and can see the back side of an interior wall, you should seal and insulate over that chase. Some penetrations, such as duct boots, can be sealed from the living space side.*







*Make cover box and scuttle coverings snug, yet with enough slack to allow for easy movement. Construct with rigid insulation board, nails, construction glue and duct tape. Insulation dams help to keep insulation in place. Consider installing a secure landing spot for movement in and out of the attic.*



# Mentimeter Question

Do you leave your ceiling fans on to keep the hot air from rising?

Yes

No

No



Credit Big Ass Fans

## Table Question

---

Top 5 energy users in your home?

If you knew you were spending \_\_\_ per year on an energy hog how much would you spend to upgrade for a 75% savings?

- \$50
- \$120
- \$1000



# Bill Analysis


---

# Bill Analysis



Feedback Contact Us Logout Welcome, Robert

Georgia Power Billing and Payments Pages Support Center My Profile

405 10TH ST NE APT 2... 43318-72116 Overview Pay Now Options History Usage Save Money & Energy Payment Arrangements More

 **Smart Usage**  
Save on your energy bill with our Smart Usage rate by changing how and when you use energy. [Tell Me More](#)

### Overview

 Account Details	 Your Current Bill
405 10TH ST NE APT 2nd ATLANTA GA 30309 43318-72116 405 10TH ST NE APT 2nd ATLANTA, GA 30309	Draft Date <b>09/25/2023</b> Billing Period <b>08/02/2023-09/01/2023</b> <a href="#">Billing &amp; Payment History</a> Total Due <b>\$0.00</b> <small>Total due reflects pending/scheduled payments</small> <a href="#">Manage Your Auto Pay Account</a> <a href="#">Pay Your Other Bills</a>

[CHAT](#)

405 10TH ST NE APT 2...  
43318-72116

Overview Pay Now Options History Usage Save Money & Energy Payment Arrangements More

### My Power Usage

This Month's Bill Estimate  
\$66 - \$89

Cost Trend vs. Last Bill  
-22% to +5%

Cost From 9/1/2023 - 9/10/2023  
\$24.17

Average Daily Cost  
\$2.42

Monthly Daily **Hourly**

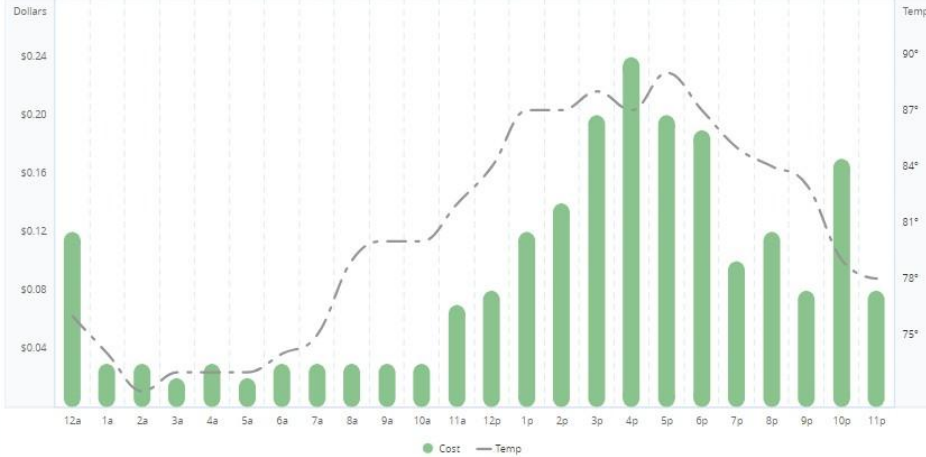
Chart Options

Graph  Table

Date

◀ Sep 5, 2023 📅 ▶

Export ▼



405 10TH ST NE APT 2...  
43318-72116

Overview

Pay Now

Options

History

Usage

Save Money & Energy

Payment Arrangements

More

### My Power Usage

Billed Amount

\$85.02

Cost Trend vs. Last Bill

↓ -11%

Cost From 8/2/2023 - 9/1/2023

\$85.02

Average Daily Cost

\$2.84 i

Monthly

**Daily**

Hourly

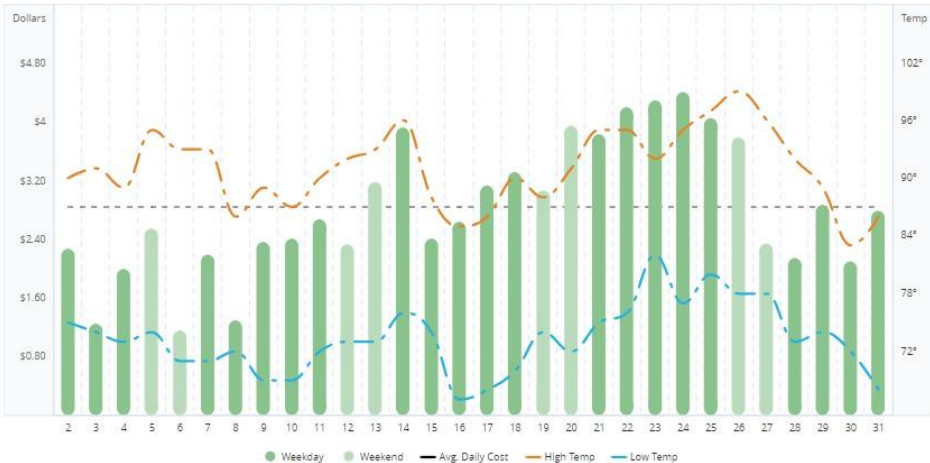
Chart Options

Graph  Table

Billing Period

Aug 2, 2023 - Sep 1, 2023

Export



Disclaimer: Until your account actually goes through billing, dollar amounts, and billing dates are estimated for electric service for the current billing period. The estimated dollar

Lynmont  
53427-30004

Overview

Pay Now

Options

History

Usage

Save Money & Energy

Payment Arrangements

More

## My Power Usage

This Month's Bill Estimate  
\$220 - \$243

Cost Trend vs. Last Bill  
+232% to +267%

Cost From 8/17/2023 - 9/10/2023  
\$171.07

Average Daily Cost  
\$6.84

Monthly

Daily

Hourly

Chart Options

Graph  Table

Billing Period

< Aug 17, 2023 - Sep 18, 2023 >

Export



Disclaimer: Until your account actually goes through billing, dollar amounts, and billing dates are estimated for electric service for the current billing period. The estimated dollar amounts assume that energy usage is constant in order to make a projection and do not reflect temperature forecasts, power outages or disconnects for non-pay. Your TOTAL



Lynmont  
53427-30004

Overview Pay Now Options History Usage Save Money & Energy Payment Arrangements More

### My Power Usage

This Month's Bill Estimate  
\$220 - \$243

Cost Trend vs. Last Bill  
+232% to +267%

Cost From 9/17/2023 - 9/10/2023  
\$171.07

Average Daily Cost  
\$6.84

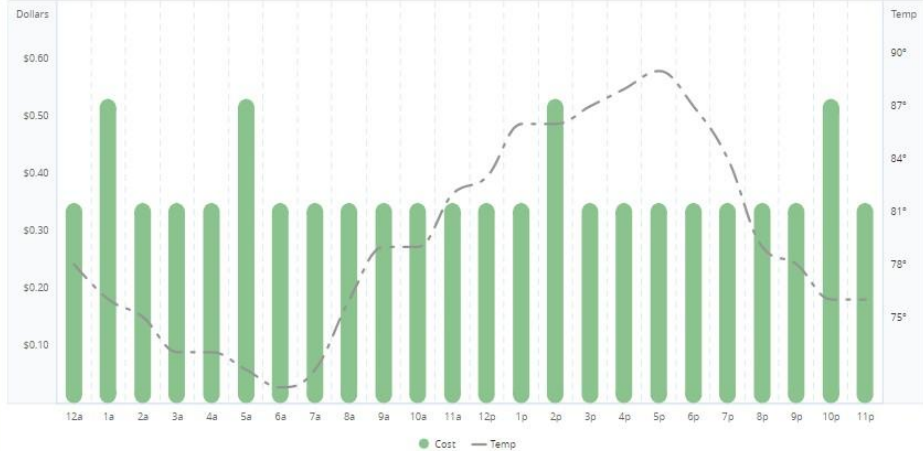
Monthly Daily **Hourly**

Chart Options

Graph  Table

Date  
Sep 5, 2023

Export



Disclaimer: Until your account actually goes through billing, dollar amounts and billing dates are estimated for electric service for the current billing period. The estimated dollar amounts assume that energy usage is constant in order to make a projection and do not reflect temperature forecasts, power outages or disconnects for non-pay. Your TOTAL

# Who can help



## RESOURCES

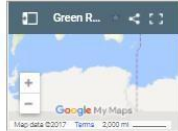
Southface authors and collects many technical documents about green building techniques, best practices in design and the use of appropriate technology. The resources found here are accessible through many of the program and service pages elsewhere on the site, but have all been compiled here. Use this tool for information on energy code, national standards, white papers, fact sheets and more.

- Energy Code:** Southface specializes and trains professionals in commercial and residential energy code throughout the southeast. These document resources support that initiative. +
- Building Science:** Building science is core to the Southface education initiatives. These documents support those efforts. +
- Course:** Sample agendas and FAQs for technical courses. Check course specifics for detailed information. +
- Policy:** Southface policy initiatives include renewable energy, affordable housing and community development to name a few. +

- Research:** Building science research +
- Advanced Commercial Building Initiative:** Support documents and toolkits +
- Professional Locator:** Find a Green Rater, HERS Rater or Duct, Envelope and Tightness Verifier -


### FIND A RATER/VERIFIER

#### GREEN RATERS




Map showing Green Rater locations. The map is titled 'Green R...' and shows several red location markers on a map of the Southeastern United States. The map data is from 2017 and has a 2,000-mile scale.

#### DET VERIFIERS



Map showing Find a Duct, Envelope and Tightness Verifier locations. The map is titled 'Find a D...' and shows several red location markers on a map of the Southeastern United States. The map data is from 2017 and has a 1,000-mile scale.

#### SERH HERS RATERS



Map showing SERH HERS Rater locations. The map is titled 'SERH H...' and shows several red location markers on a map of the Southeastern United States.



# Thank you!

Sign up for our newsletter

Register for events

Register for trainings

Become a member

Give to our mission

Visit [Southface.org](https://www.southface.org)



Questions?

# **DEKALB'S CLEAN ENERGY TRANSPORTATION TRANSITION PLAN**

## **Climate Champions**

**NOVEMBER 08, 2023**

**SESSION 2**

**178 SAMS ST, DECATUR GA**

**CLIMATE CHAMPION SESSION START @NOON**

**WORLD PLANNING DAY EVENTS @9AM OPEN**

<https://cleanenergydekalb.com/>





# DEKALB'S CLEAN ENERGY TRANSPORTATION TRANSITION PLAN

## CLIMATE CHAMPIONS

In this information session for the Climate Community Champions Cohort we will be evaluating energy improvement projects, DIY techniques for air and duct sealing, in field techniques for evaluating energy bypasses, envelope efficacy, and ventilation safety.

Included within this information session we will have training manuals and reference guides and even show you how to do it!



**NOVEMBER 08, 2023**

**SESSION 2**

**178 SAMS ST, DECATUR GA  
CLIMATE CHAMPION SESSION START @NOON  
WORLD PLANNING DAY EVENTS @9AM OPEN**



Dekalb County Clean Energy  
Transportation Transition Plan

Community Engagement Session 2

# Project tasks

1. Recommendations on addressing DeKalb's Clean Energy Goals
2. Recommendations on Energy Efficient methods to meet the County's Energy Needs

## How to transition to clean energy



Educate community  
& stakeholders



Collaborate with  
residents, businesses,  
& institutions



Set goals and track  
progress



Invest in solar energy  
& other renewable  
sources



Reduce energy use  
through efficiency  
upgrades



Reduce reliance on  
fossil fuels

# The partners





# 4. Recommendations on Increasing Equity and addressing energy burden within the County

- Development of an energy equity map





## 4. Recommendations on Increasing Equity and addressing energy burden within the County

- Community Climate Champions



## 5. Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process

- Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)
- Survey



# AIR SEALING IN EXISTING HOMES

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A very brief introduction

# TYPICAL FEATURES AND ISSUES OF OLDER HOMES

- Unsealed attics and crawl spaces
- Minimal insulation
- Leaky, outdated windows and doors
- Inefficient heating & cooling systems
- Poor Water Management
- Mold & Mildew
- Outdated electrical
- Poor indoor air quality
- Asbestos & Lead

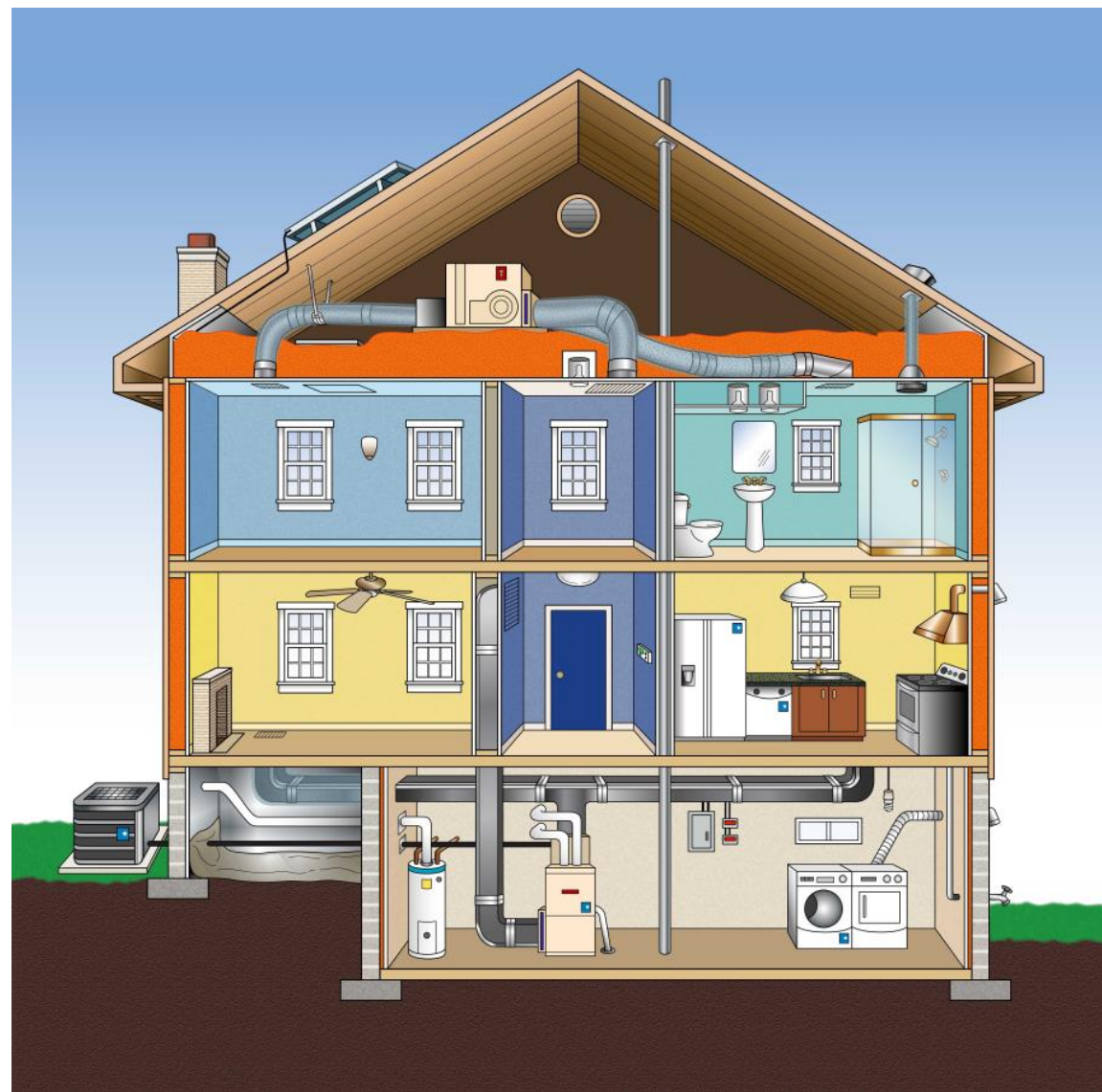


# FIRST, A LITTLE BUILDING SCIENCE

Houses are systems

What impacts how they use energy?

- Air sealing and insulation (called the Building Envelope)
- Heating, Air Conditioning, and Ventilation (HVAC) systems
- Water heating and piping
- Lighting and appliances



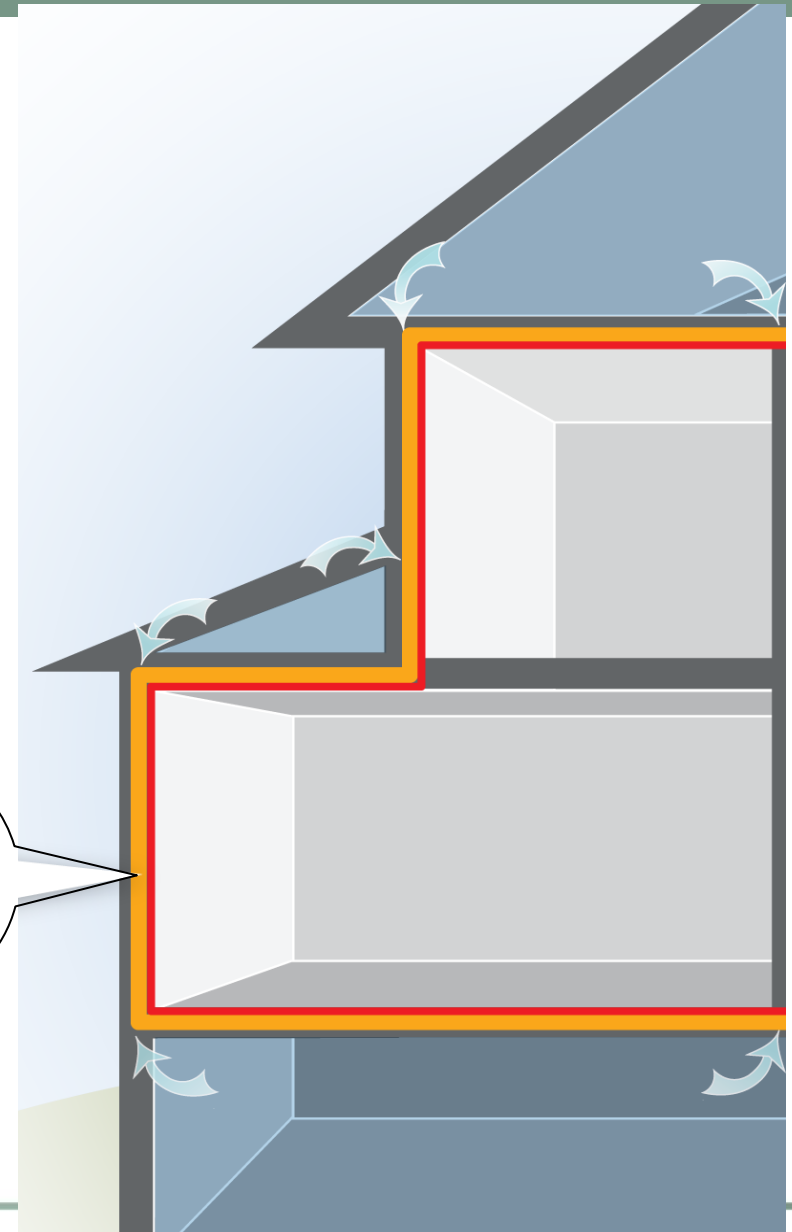


# WHAT IS A BUILDING ENVELOPE?

A two-part system:

- Air sealing (including at the ceiling, around windows/doors, and penetrations through the floors)
- Insulation in the attic, exterior walls, and the floor.

Building envelope



# WE CAN MEASURE AIR LEAKAGE



Air leakage in buildings can be measured using a tool called a Blower Door. Blower Doors allow us to identify where leakage areas are, and to quantify the amount of air leakage and its impact on energy efficiency.

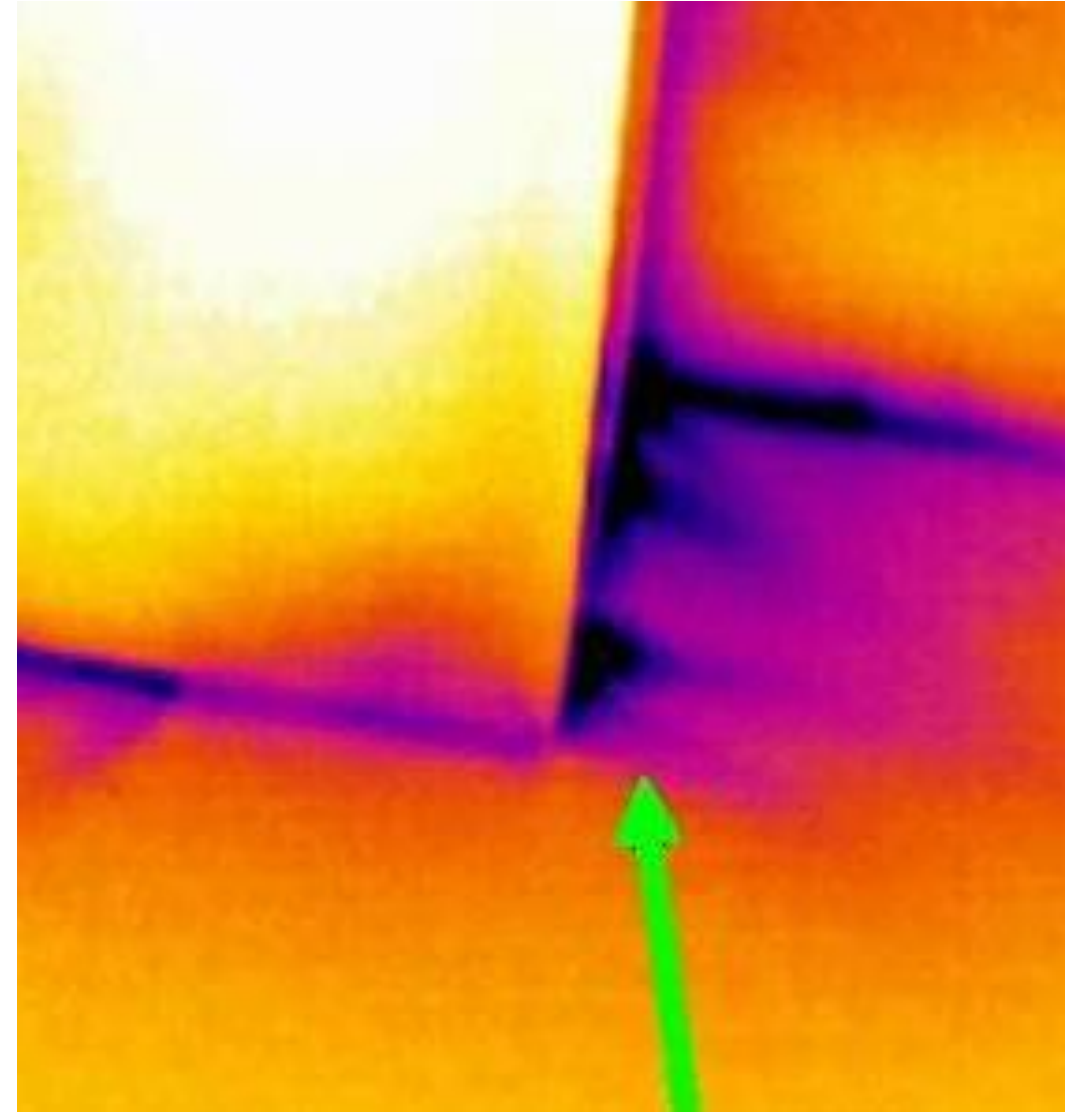
# HOW DOES AIR MOVE THROUGH BUILDINGS?

Air moves from areas of high pressure to low pressure through natural air movement or mechanical systems that are installed in homes

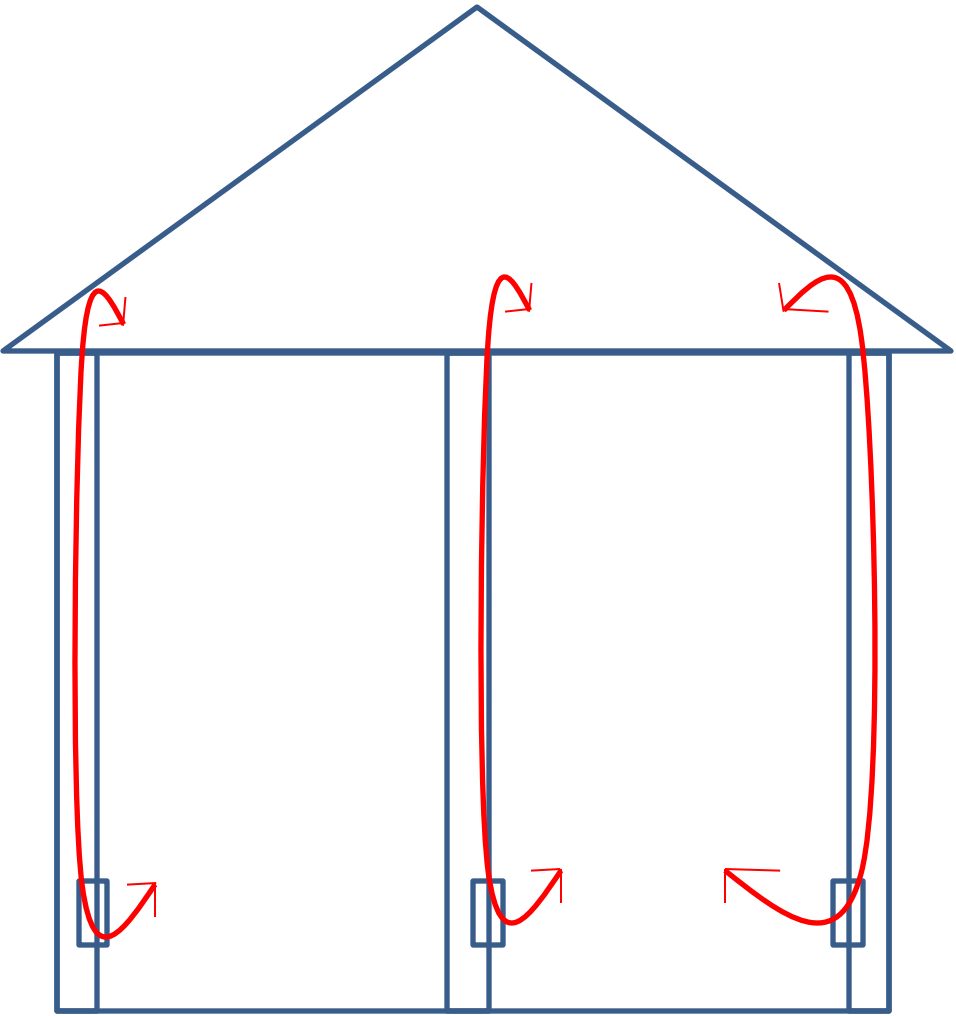
Differences in temperature between the indoors and outdoors results air movement via stack effect

Bath fans, kitchen range hoods, and dryers intentionally remove air from homes

HVAC equipment can create positive or negative pressures based on its ductwork



# AIR SEALING: WHY?



Penetrations larger than 1/8" add up to significant holes in a building envelope, leading to loss of conditioned air to unconditioned spaces

# IMPACTS OF AIR LEAKAGE

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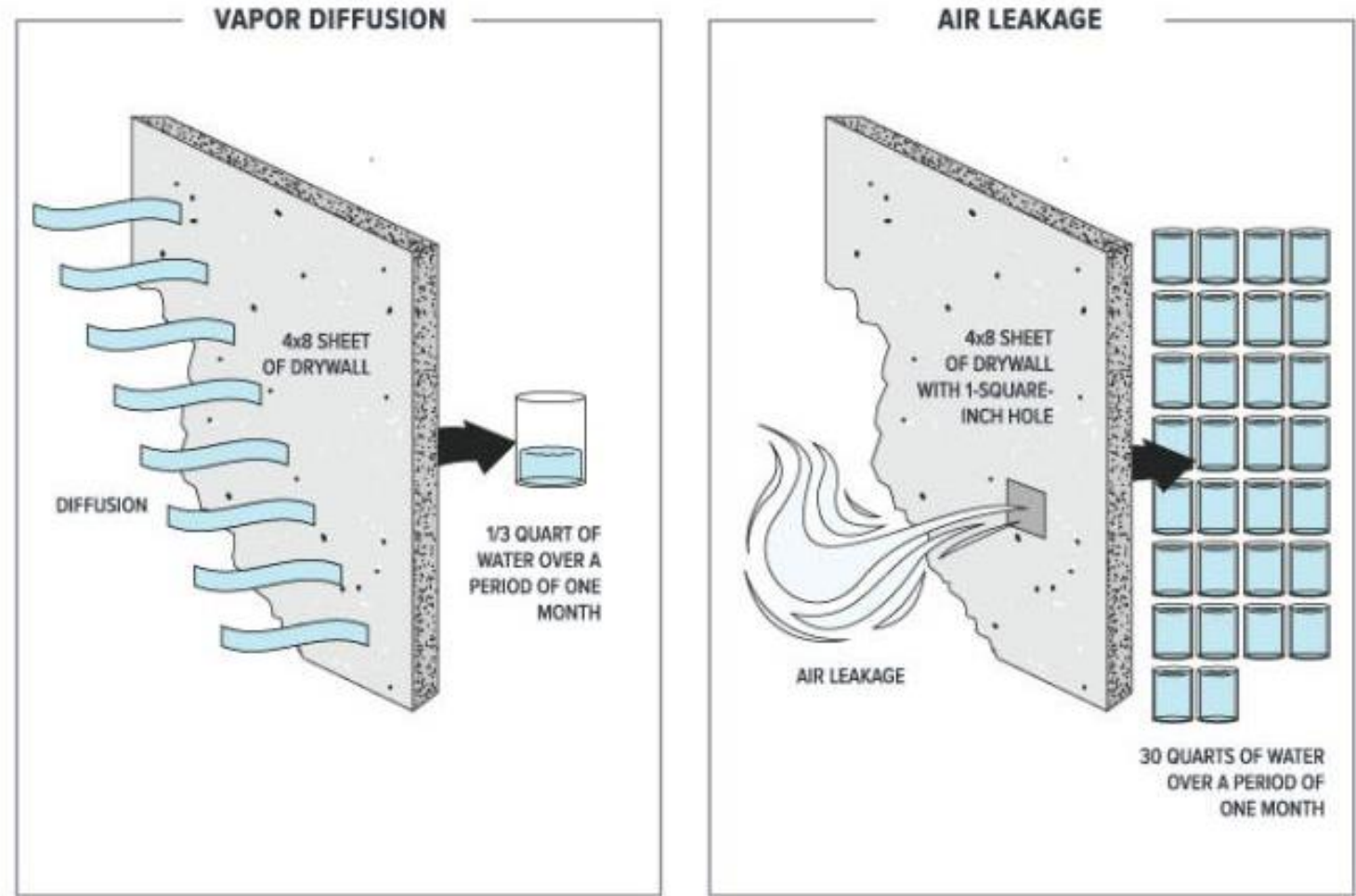
- Outdoor air contaminants (pollen, air pollution, etc.) brought indoors that negatively impact health
- Low comfort due to impact hot/cold outdoor air brought indoors during summer/winter months
- Low comfort due to high humidity in the summer, low humidity in the winter
- Increased energy bills because systems must work harder to cool/heat outdoor air



# AIR LEAKAGE = WATER INFILTRATION

Another reason to limit air flow in a home is to reduce moisture intrusion.

Even a small hole can allow a large amount of water vapor (humidity) into the building.



## VAPOR DIFFUSION VS. AIR LEAKAGE

INTERIOR TEMPERATURE = 70° F  
RELATIVE HUMIDITY = 40%

©CCPIA

# HOW DOES HEAT MOVE THROUGH A BUILDING?

Heat always moves from warm to cold areas through air movement, materials that are in contact with each other and from hot surfaces in close proximity to cooler surfaces

Insulation slows heat movement when exterior temperatures and surfaces are colder than the building interior, and vice versa.



# IMPACTS OF POOR INSULATION

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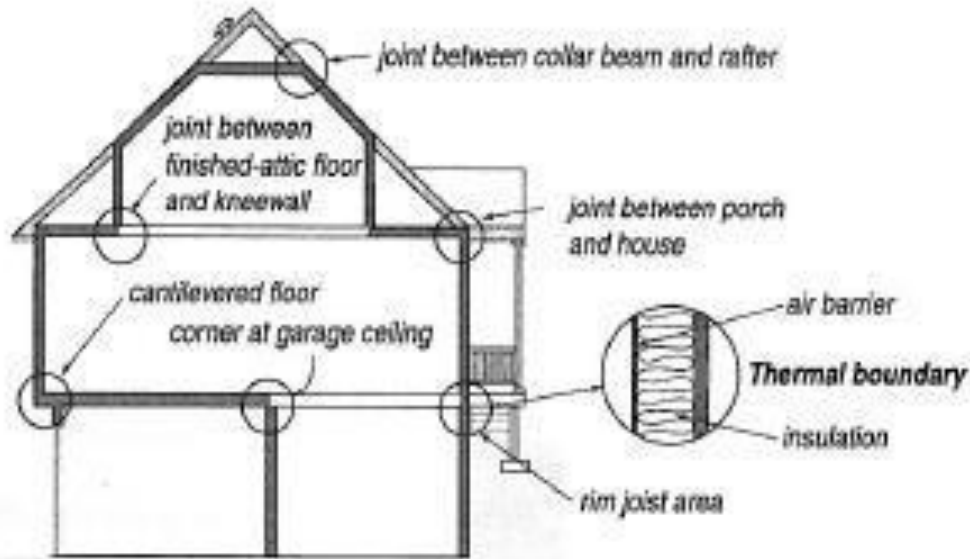
- Low comfort due to impact hot/cold surfaces during summer/winter
- Increased energy bills because systems must work harder to cool/heat uninsulated surfaces
- Condensation at uninsulated areas, especially in attics

# AIR SEALING AND INSULATION

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- Air Sealing and Insulation work together to create indoor spaces that are comfortable and efficient
  - A house needs both. They are usually separate products, but some materials can be used to air seal and insulate.
- They need to be in contact with each other.
  - Where there are gaps, there are opportunities for heat transfer and/or air movement.
- They need to fill the space.
  - You don't get full credit for only partial coverage.
    - Insulation needs to be “fluffy”, or not compressed

# BUILDING ENVELOPE “CRITICAL JUNCTURES”



“Critical junctions” occur whenever two planes of building envelope intersect with each other:

- Exterior corners, openings
- Roofline-wall connections
- Cantilevers
- Rim joists
- Garage walls and/or ceilings
- Attic knee walls
- Dormers



# HOUSE AS A SYSTEM APPROACH

**Health, comfort and efficiency are all impacted by:**

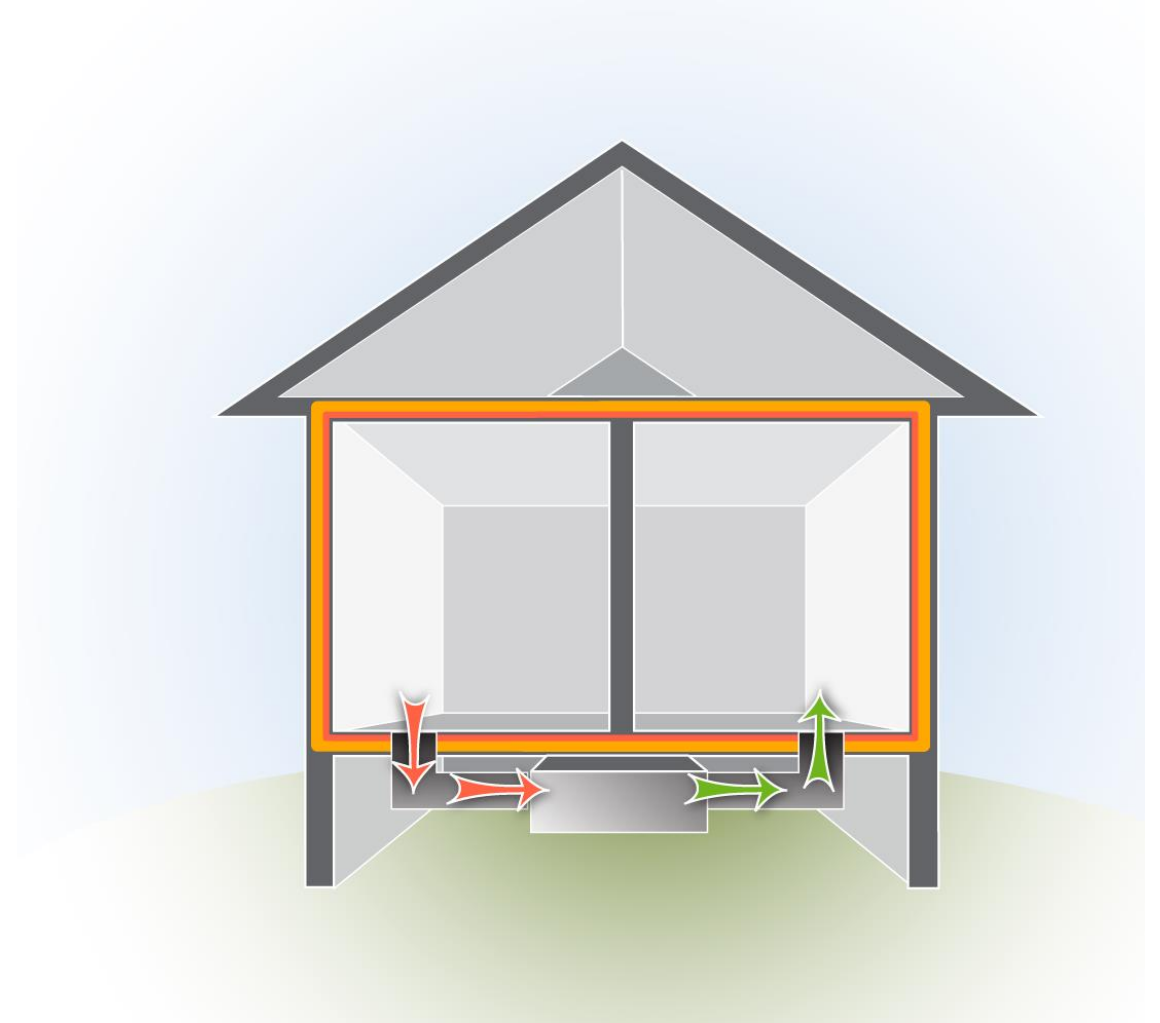
Building envelope

Moisture management

Controlled ventilation

Proper heating and cooling systems

Efficient appliances

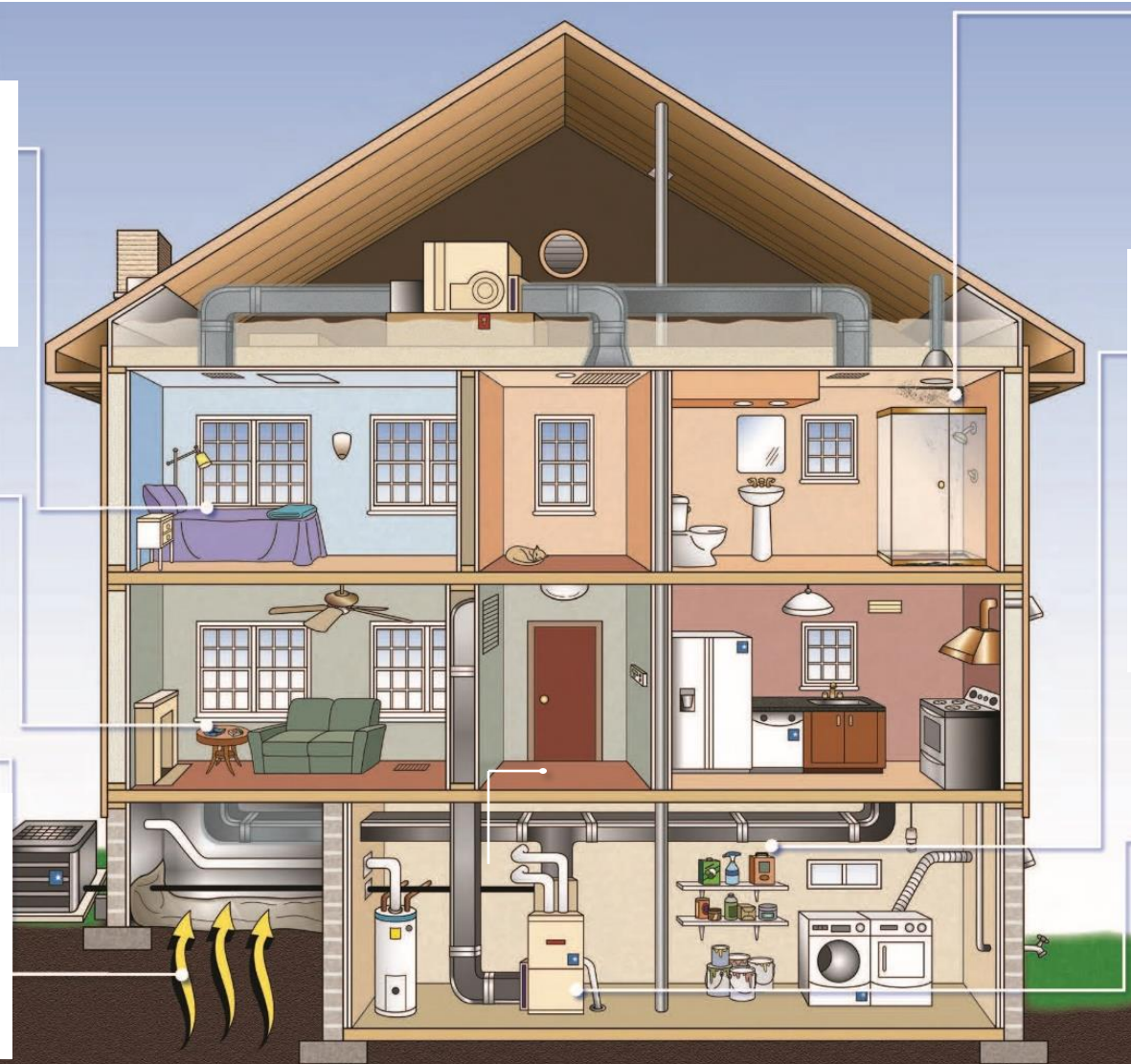


# INDOOR AIR QUALITY

Living space finishes, such as flooring, cabinets and countertops, free of VOCs and formaldehyde

Fireplaces should be sealed combustion, with proper occupant education

Homes located in EPA Radon Zone 1 are built with radon mitigation systems in place



Exhaust fans remove moisture from bathrooms, kitchens

Homeowner education to separate harmful chemicals and products from the living space air

Safe combustion appliance location and venting plus CO alarms

Outdoor air ventilation system to dilute indoor pollutants while treating outdoor air humidity and particles

# GAS APPLIANCES: SAFETY



Gas appliances have vents that remove dangerous combustion products from the home

A visual inspection for rust, disconnects, or holes helps keep the equipment safe





# TOOLS FOR ATTIC AIR SEALING

1. Urethane foam (spray foam)
  - Example: Great Stuff
2. Foam board
  - 1/2" thick boards work for most projects
3. Sheet metal/aluminum flashing
4. Mastic and gloves
  - Master Flow water-based mastic
5. High-temperature caulk
  - 3M Fire Barrier Sealant (red)
6. Utility flags
7. Insulation rulers
8. Tin snips (to cut aluminum flashing)
9. Stapler
10. Weatherstripping
11. Zip ties and zip tie tightening tool
12. Utility knife



# COMMON AIR LEAKAGE LOCATIONS

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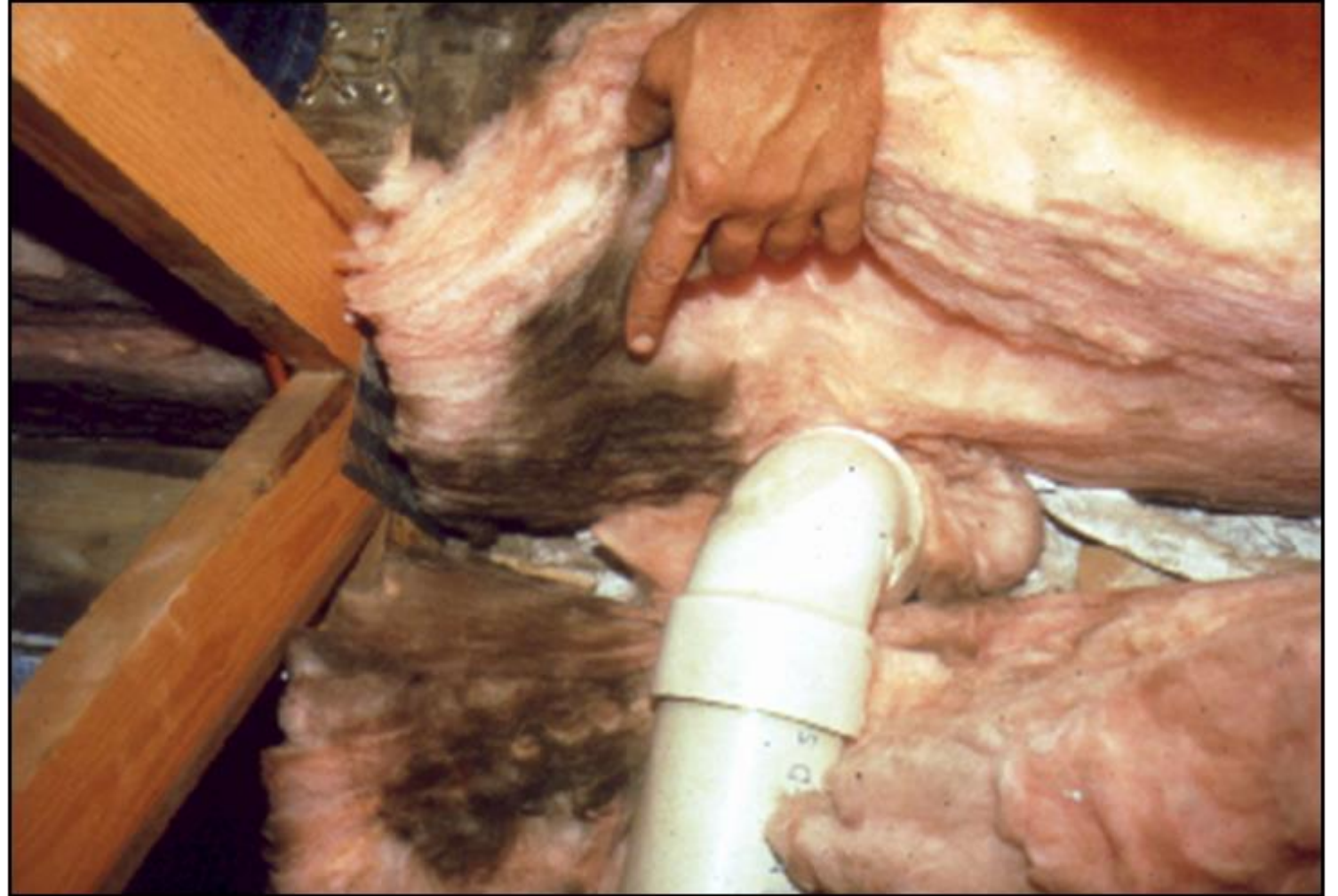
- Chases – framing around fireplaces, ductwork, flues, etc.
- Top plates – top of framing for walls that are accessible in attics
- Electrical & wiring penetrations that are accessible in attics and basement/crawlspace
- Plumbing penetrations that are accessible in attics and basement/crawlspace
- Knee walls (walls in some finished attic spaces)
- Attic stairs and scuttle holes
- Recessed can lights
- Exhaust fans
- Dropped soffits – often found in closets and above kitchen cabinets



# LOOKING FOR AIR LEAKAGE IN ATTICS

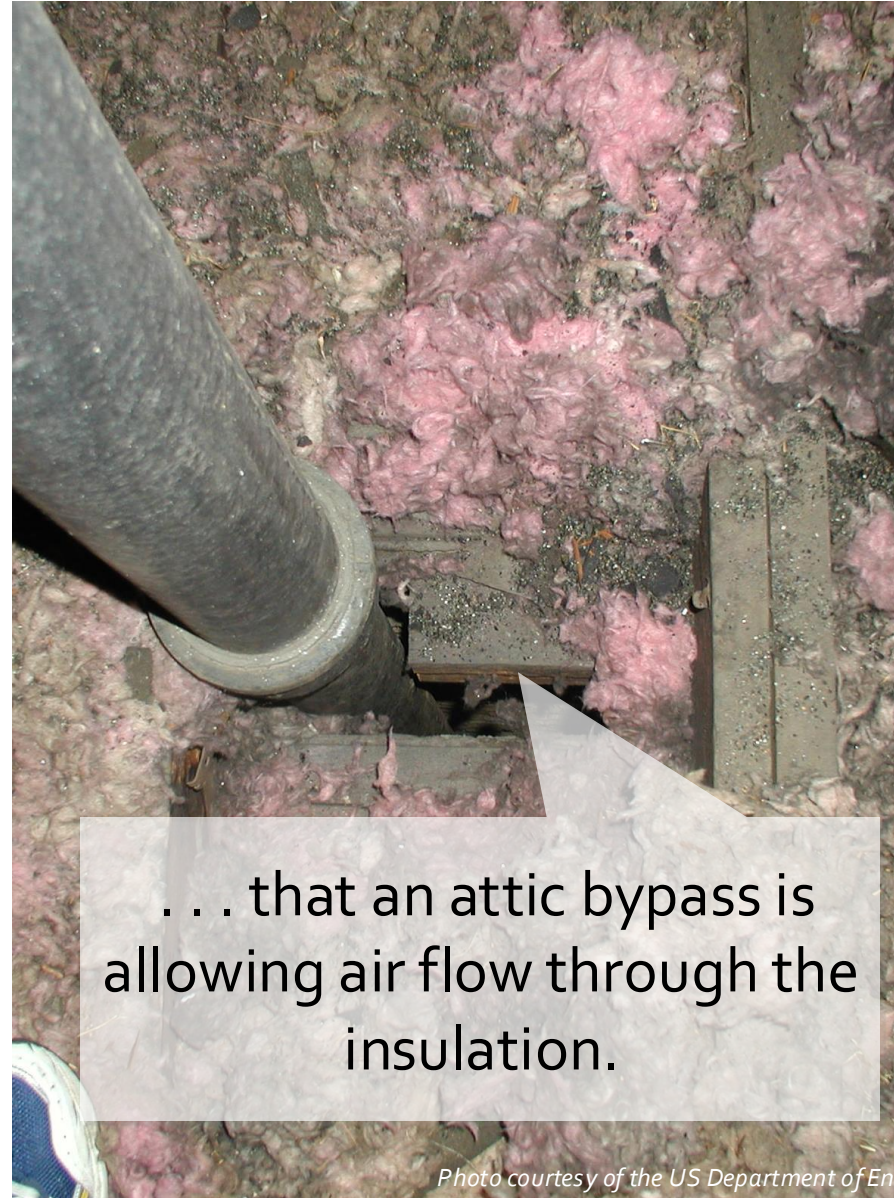
Dirty insulation shows air leakage!

Spider webs are useful for finding air leakage too





# LOOKING FOR LEAKS IN AN ATTIC



*Photo courtesy of the US Department of Energy*



# EXAMPLES OF AIR MOVEMENT - CHASES



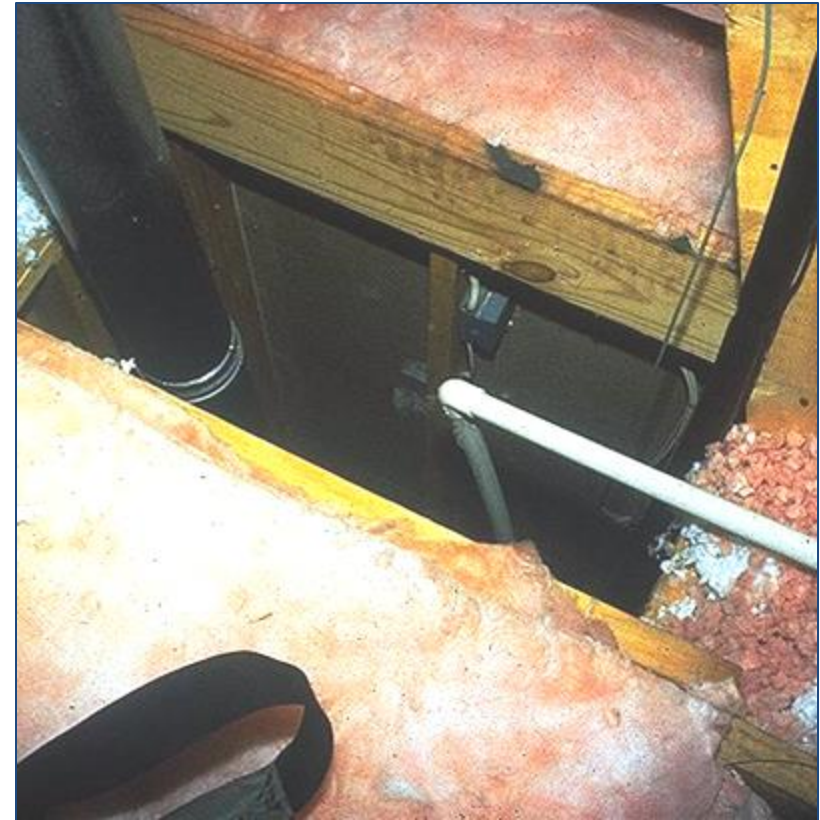
Insulation has been stuffed into the gap in framing between HVAC ductwork and the ceiling framing



Gaps are left between fireplaces and ceiling framing

# EXAMPLES OF AIR MOVEMENT - CHASES

Chases are intentional wall cavities for utilities such as plumbing, ductwork, and/or combustion vents





# SEALING CHASES & PENETRATIONS



Non-heat sources (plumbing, HVAC ducts) can be sealed with spray foam, caulk, and/or foam board





# SEALING CHASES: GAS APPLIANCES/HEAT SOURCES

Chases around flues and other heat sources must be capped and sealed with fire-safe materials such as aluminum or galvanized sheet metal flashing, cement board and fire caulk



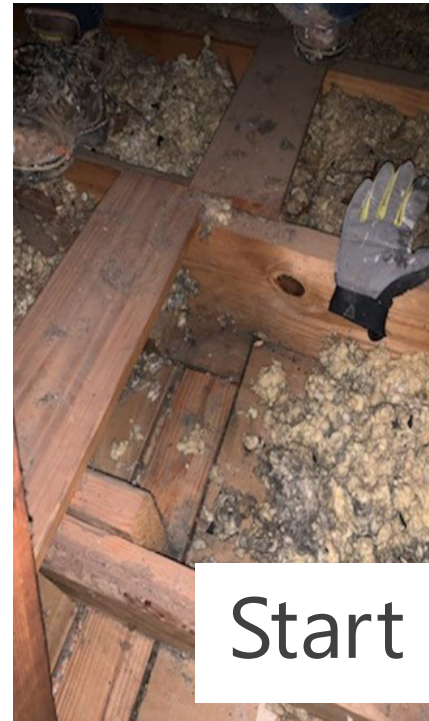
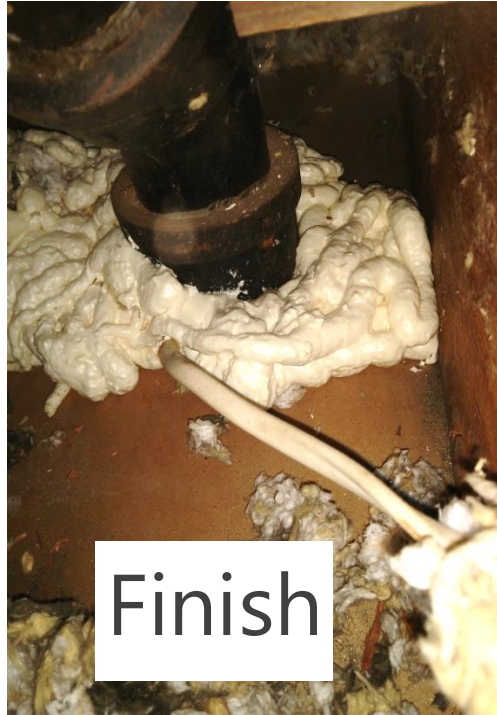
# AIR SEALING HEAT SOURCES



Heat sources include fireplaces, gas water heater vents and gas furnace vents



# SEALING ATTIC PENETRATIONS



Brush back insulation to clean the surface and fully expose the air leakage location before sealing with spray foam or caulk.

# PENETRATIONS CAN ALSO BE FOUND IN THE FLOORS

Before



After





# AIR SEALING TOP PLATES



- Top plate to drywall (interior wall cavities often connect to attic)
- Wherever there are interior walls, there are top plates in the attic that can be air sealed!



# ATTIC KNEE WALLS

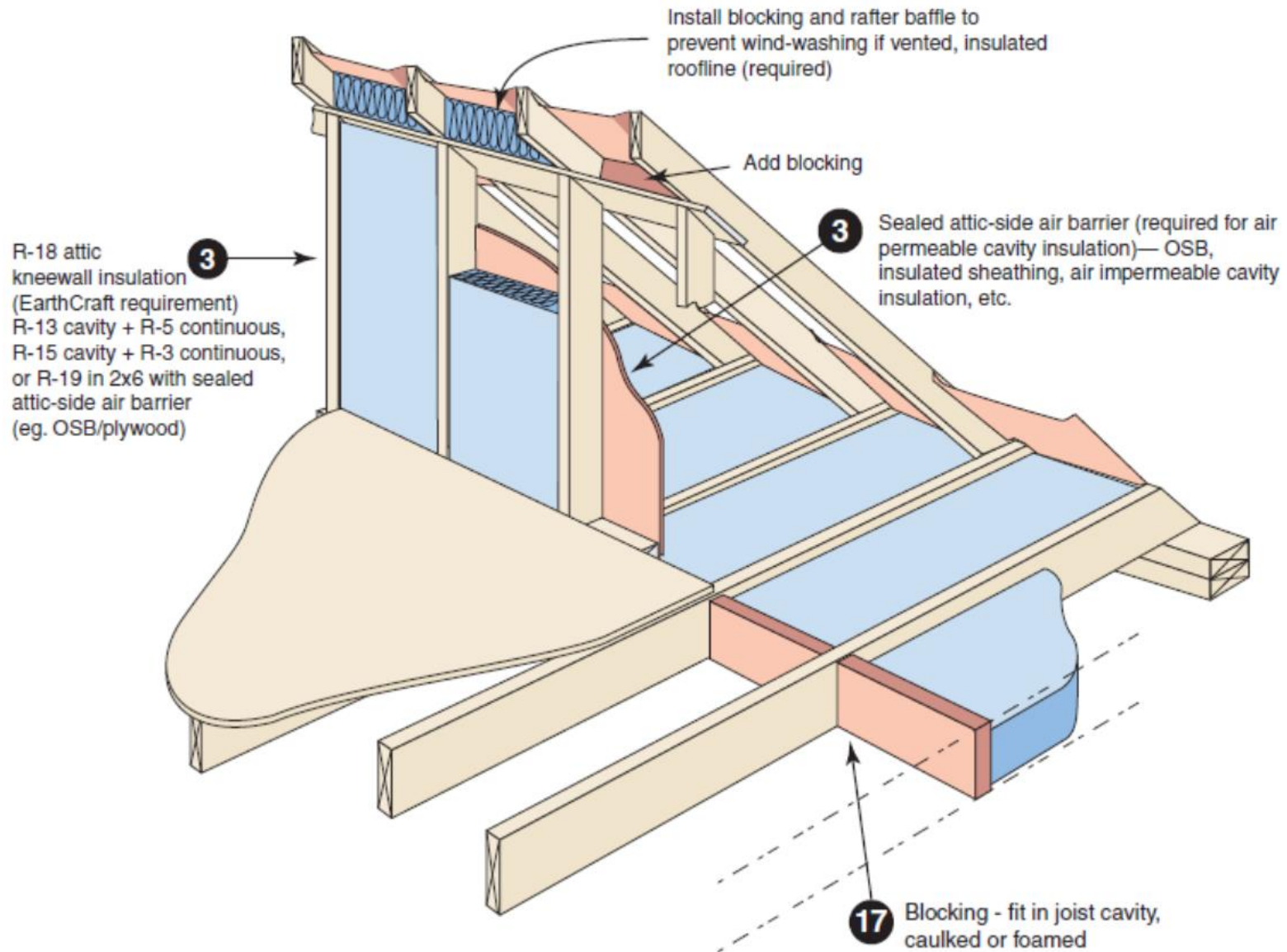
Knee walls are walls that separate conditioned space from attic spaces

They can often look like this:



But they should be sealed and insulated from the attic side of the wall

# ATTIC KNEE WALL DETAILS



# AIR SEALING ATTIC ACCESS

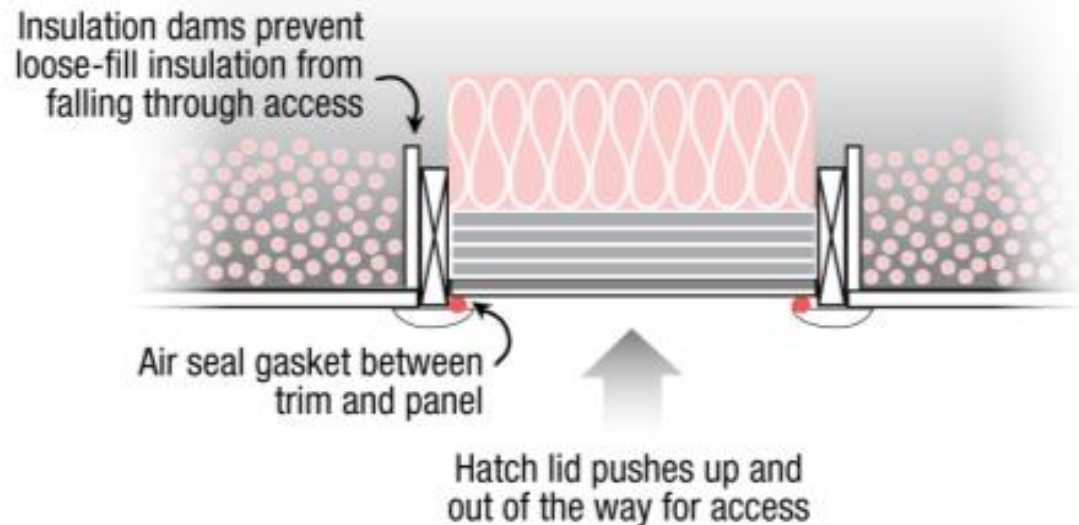
Use weather-stripping & caulk and add insulation



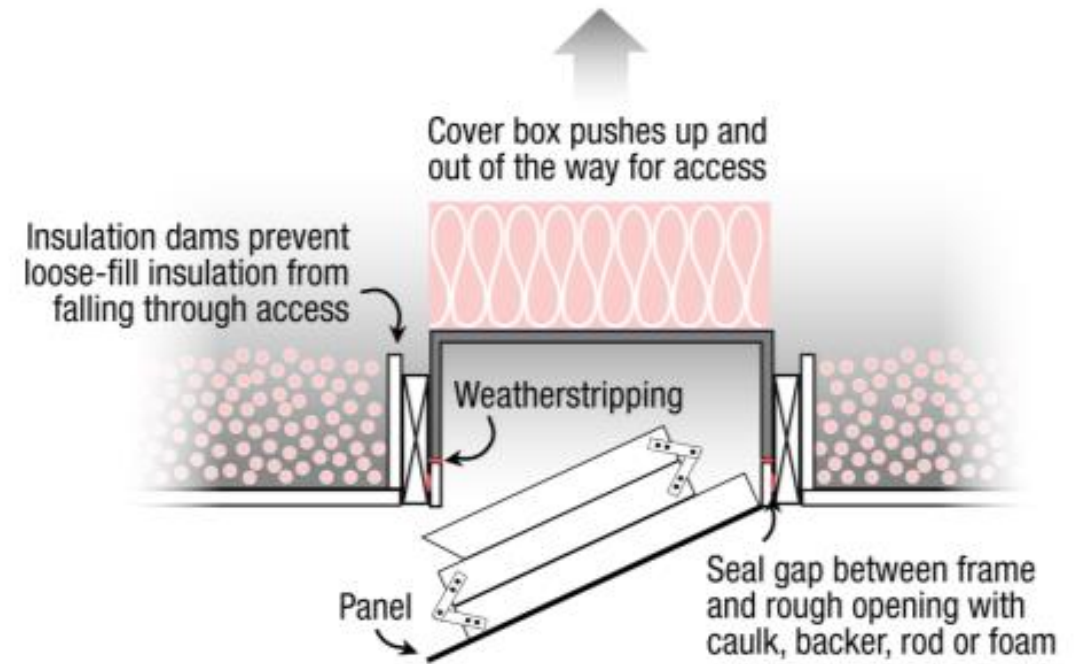


# DIFFERENT WAYS TO AIR SEAL AND INSULATE ATTIC ACCESS

## Scuttle Hole Cover



## Pull-Down Attic Stairs



# DIY ATTIC ACCESS OPTIONS



Site-built with plywood, hinges and R-38 batt



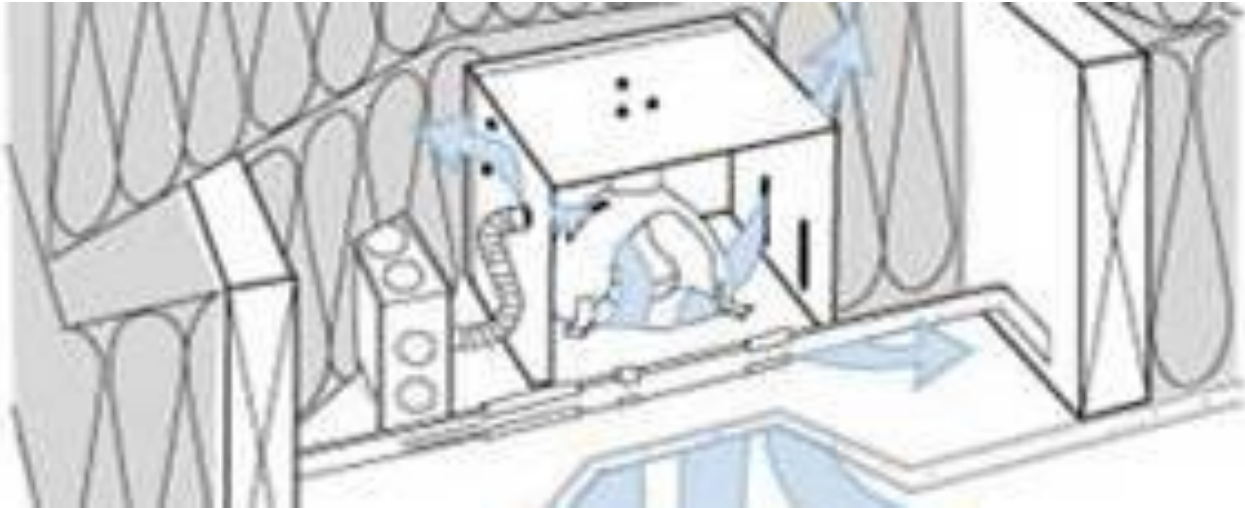
Site-built with foam board



Attic Tent

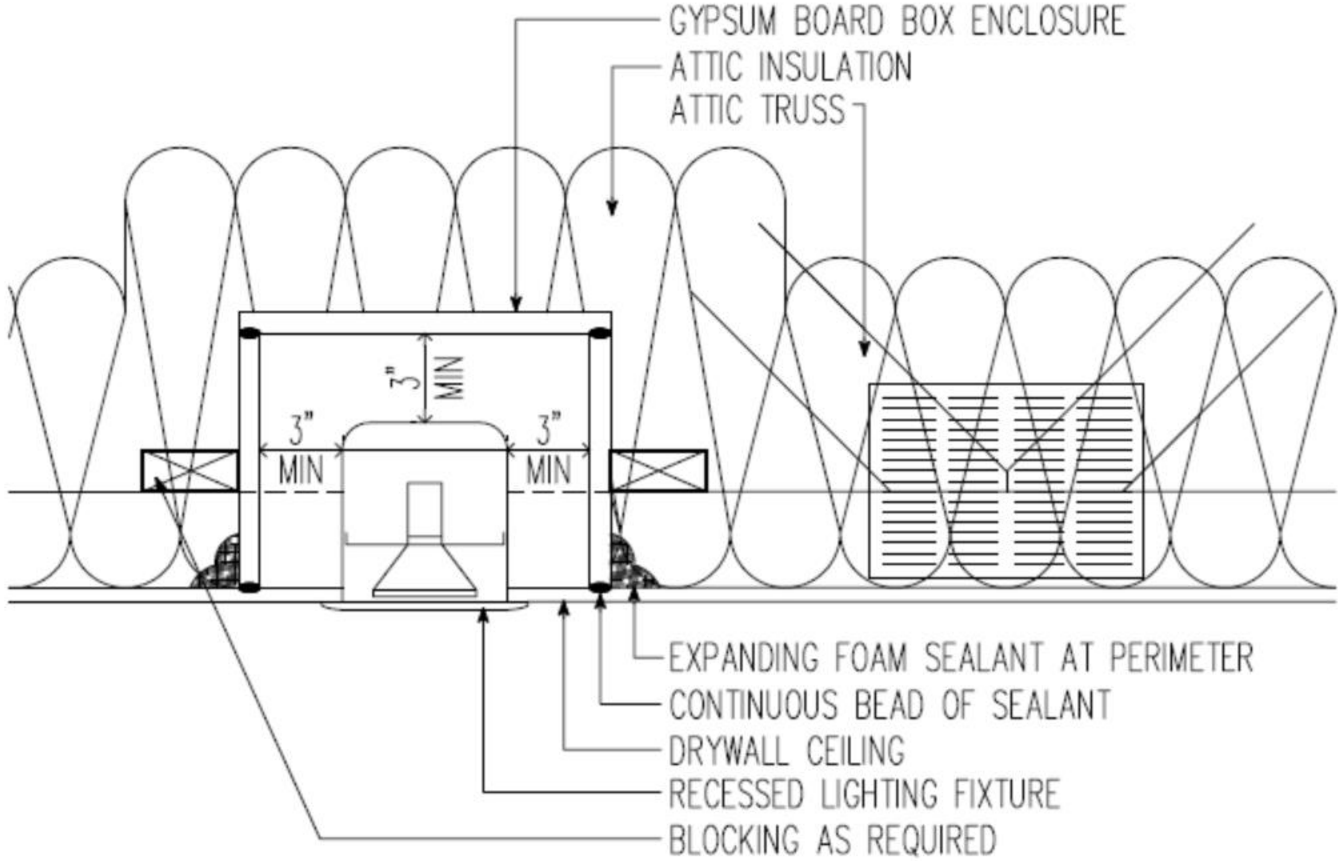


# CAN LIGHTS CAN BE BIG LEAKS

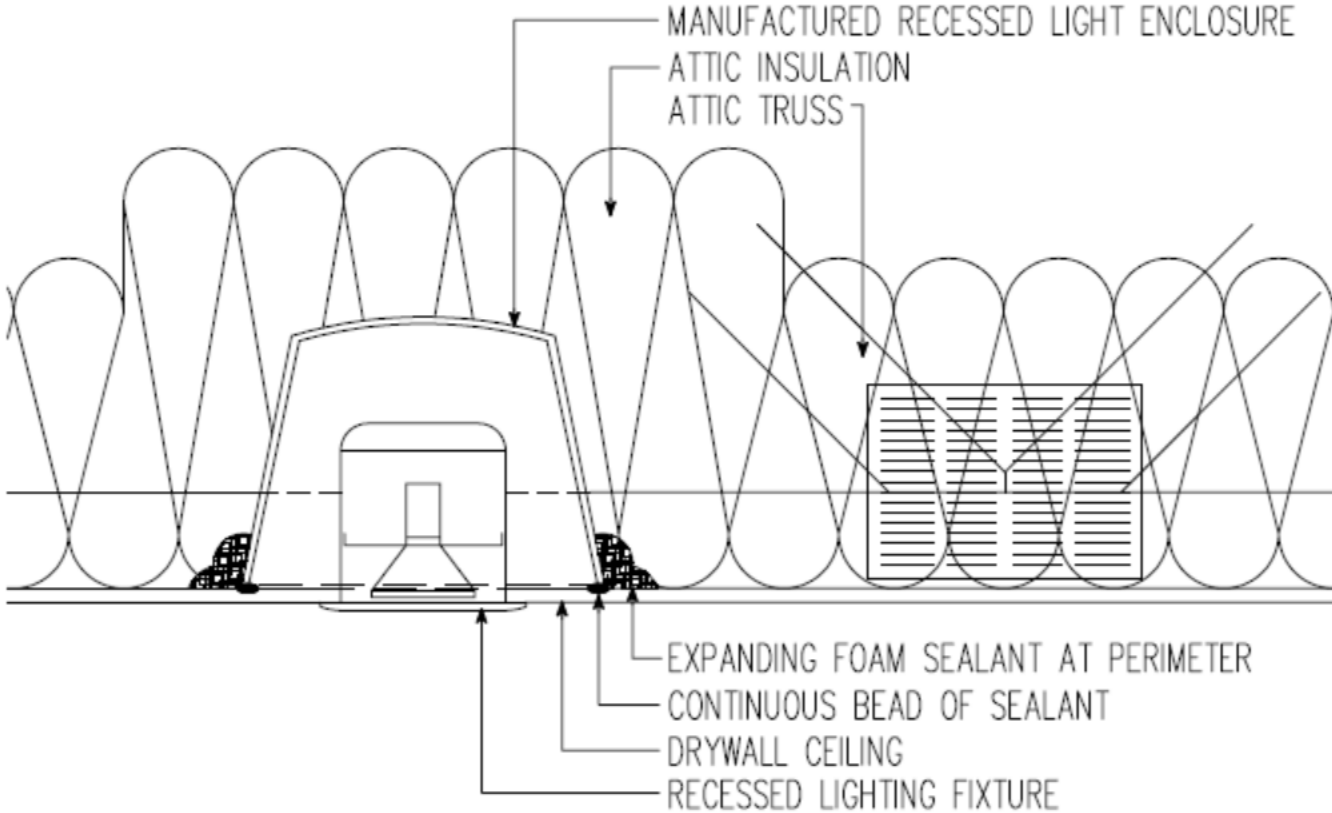


Even when covered with insulation recessed lights pump conditioned air out of the house.

# CAN LIGHT SOLUTIONS



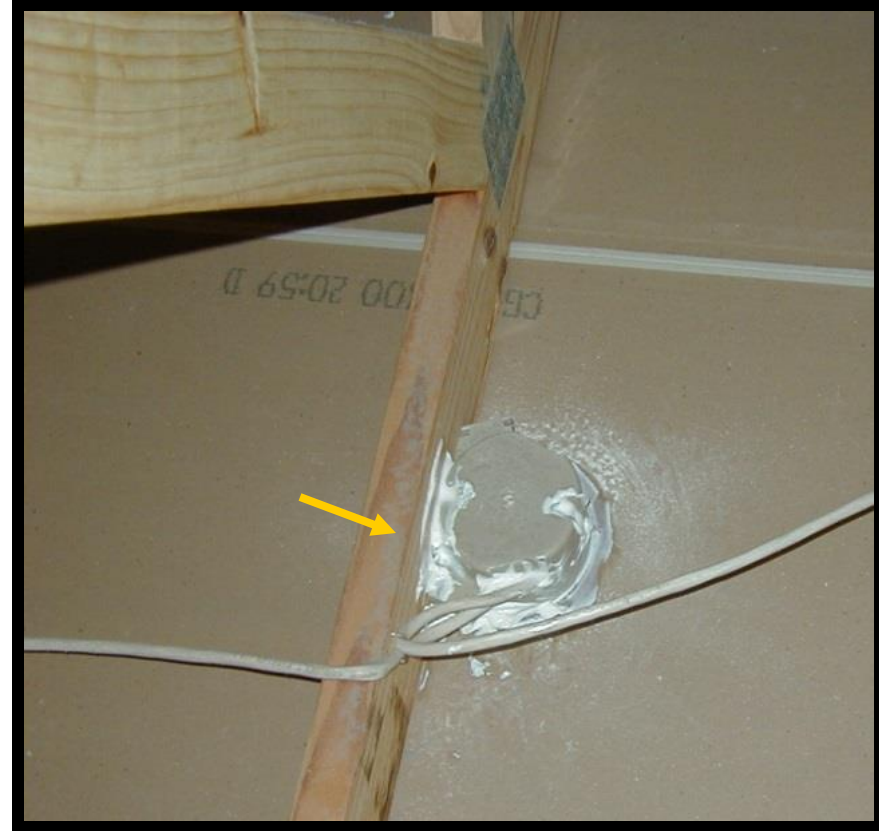
# CAN LIGHT SOLUTIONS



# AIR SEALING ELECTRICAL PENETRATIONS

HVAC, plumbing and electrical penetrations can be found in the attic – wherever there is a ceiling light or fan, there is a penetration

Make sure electrical wiring is safely installed before working around it





# AIR SEALING TO DRYWALL

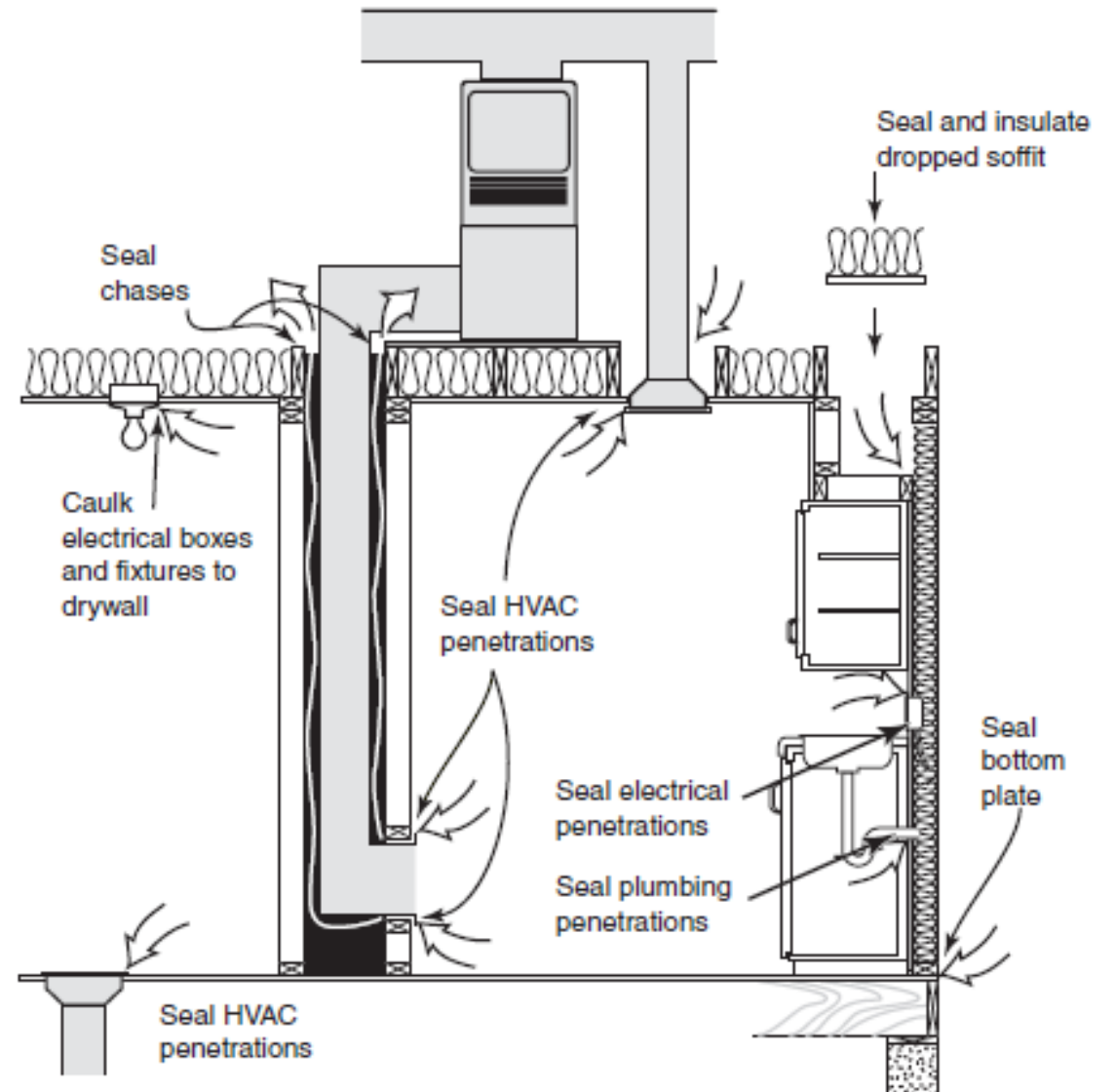


Sometimes penetrations are not easily accessible; remove covers and air seal to the drywall in these cases.



# AIR SEAL HVAC SYSTEMS

- Use mastic to air seal seams at the HVAC unit
- Remove register covers and caulk boots to ceiling and/or floor
- Cap chases in ceilings



# DUCTWORK AIR SEALING GUIDE

1. Apply mastic on collar to plenum connection
2. Apply mastic on sheet metal seam/connection
3. Slide liner over connection and install compression strap (zip tie)
4. Mastic over liner & zip tie (about 1" on either side of liner edge)
5. Pull insulation over connection and zip tie



# DROPPED SOFFIT FROM THE LIVING SPACE

An innocent looking  
fireplace and built-in  
china cabinet . . .



*Photo courtesy of the US Department of Energy*



# DROPPED SOFFIT FROM THE ATTIC



... hide an attic bypass you can put another china cabinet in.

The client wondered why her silverware got cold in the winter.

*Photo courtesy of the US Department of Energy*

# SEAL, DAM, AND INSULATE





# FIRST AIR SEAL, THEN INSULATE



*Photo courtesy of the US Department of Energy*

# SUMMARY

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- Air sealing a home provides benefits to energy efficiency, indoor comfort, and air quality
- Plumbing, electrical and HVAC penetrations may be identified in the living space before going into the attic
- Where there are interior walls there are top plates
- Use appropriate materials for air sealing (heat sources require heat-safe materials)

# RESOURCES

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- [www.Southface.org](http://www.Southface.org)
  - <https://www.southface.org/insights/building-science-webinars/>
  - <http://www.earthcraft.org/>
- [www.energystar.gov](http://www.energystar.gov)
- [www.epa.gov/watersense](http://www.epa.gov/watersense)
- [www.epa.gov/indoorairplus](http://www.epa.gov/indoorairplus)
- [www.GREENGUARD.org](http://www.GREENGUARD.org)
- [www.georgiapower.com/rebates](http://www.georgiapower.com/rebates)
- <https://www.georgiapowermarketplace.com/>

# DEKALB'S CLEAN ENERGY PLAN



COMMUNITY EVENT #3

February 6th 6:30 - 8:00 p.m.



Demystify Your Energy Bill and Discover Ways To Lower It!

Hosted by:



**Southface**



Clean  
Energy  
DeKalb



DeKalb County  
GEORGIA

**Exchange Recreation Center**  
2771 Columbia Drive, Decatur, GA 30034

<https://cleanenergydekalb.com>





# DEKALB'S CLEAN ENERGY PLAN COMMUNITY EVENT #3



Stacey Isaac Berahzer, IB Environmental

02/06/2024

100

## Demystify Your Energy Bill & Discover Ways to Lower It!



# Agenda

- Welcome & Housekeeping
- Introductions & Icebreakers - How Have You Been Engaged with Your Neighbors So Far?
- Energy Bill Review - Understanding Your Bill and How to Lower it
- Next Steps - New Ways to Engage with Your Neighbors About Energy



# Welcome & Housekeeping

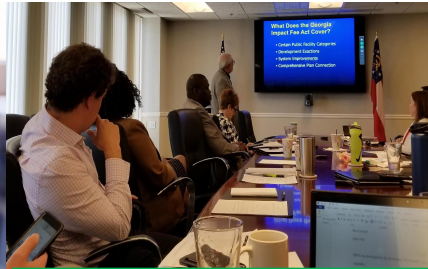


# About IB Environmental

## CORE COMPETENCIES



Water & Energy  
Affordability & Equity




Funding Sources



Stormwater & Watershed  
Management



Caribbean Environmental  
Management

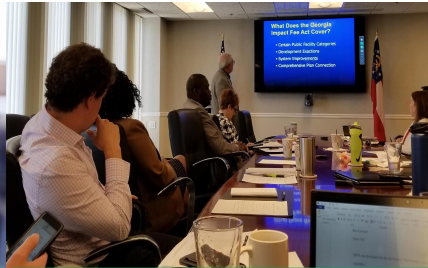
- 
- Work with local utilities and their partners to develop and improve customer assistance programs (CAPs)
  - Design CAPs that ensure water/energy services are well-funded but also accessible to low-income customers
  - Work on policies related to affordability at the state and national levels

# About IB Environmental

## CORE COMPETENCIES



Water & Energy  
Affordability & Equity



Funding Sources



Stormwater & Watershed  
Management



Caribbean Environmental  
Management

- Facilitate activities of different funding sources in Georgia
- Help nonprofit groups and local governments fill gaps in resources to create winning funding applications
- Convene and facilitate workshops and quarterly meetings to connect funding programs and applicants



# Southface

Dekalb County Clean Energy  
Transportation Transition Plan

Start date: June 22, 2023



# The partners



# Project tasks

1. Recommendations on addressing DeKalb's Clean Energy Goals
2. Recommendations on Energy Efficient methods to meet the County's Energy Needs

## How to transition to clean energy



Educate community  
& stakeholders



Collaborate with  
residents, businesses,  
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Set goals and track  
progress



Invest in solar energy  
& other renewable  
sources



Reduce energy use  
through efficiency  
upgrades



Reduce reliance on  
fossil fuels

# 4. Recommendations on Increasing Equity and addressing energy burden within the County

- Development of an energy equity map



## 5. Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process

- Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)
- Monthly meetings
- Weekly working groups



## 5. Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process

- Session 1 Defeating Myths about energy
- Session 2 DIY Energy Efficiency
- **Session 3 Community Engagement**
- Session 4 Early March State Regulatory Framework
- Potential Session 5- Engagement Plan



# Introductions and Icebreakers

How Have You Been Engaged with Your Neighbors So Far?



# Icebreaker

Ways you have shared valuable info with your community in the past



Source: [Community Image](#)



# Energy Bill Review

Understanding your Bill and How to Lower it!



# The Georgia Public Service Commission

Regulates:

- **Electricity**
- **Gas**
- Telecommunications

Does NOT regulate:

- Butane gas
- Cable television
- Cellular telephones
- Long-distance telephone service
- Propane gas
- Sewer services
- Water services
- Interstate transportation



# Which Utility is your Bill from?

- Walton EMC
- SCANA Energy
- Georgia Power
- Snapping Shoals EMC
- *Other?*





# Key Components of Energy Bills

Understanding your Bill and How to Lower it!



# Fixed Charge vs Usage Charges

- Fixed Charge (Sometimes called basic or base charge etc.)
  - The customer has very little control over this portion of their bill
  - The customer pays this charge even if they used no energy
- Usage Charge (Sometimes called variable or volumetric charge)
  - Usually based on the amount of energy used
  - Using less energy usually lowers this portion of the bill



# Riders

A variety of mandatory and voluntary charges in addition to service charges, on customers' bills

Examples with Georgia Power:

- Fuel Cost Rider
- Demand Side Management Residential Rider
- Environmental Compliance Cost Recovery Rider
- Nuclear Construction Cost Recovery Rider



<https://psc.ga.gov/utilities/electric/georgia-power-bill-calculator/>

# Walton EMC

- Rate Plan
- Gas Consumption
- AGL Base Charge
- Taxes
- Walton's Customer Service Charge



Phone 770-963-0305



Toll Free 1-866-WEMCGAS

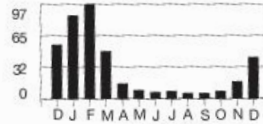
To Report a Power Outage call (770)267-2505

To Report a Gas Leak  
Emergency call (770) 907-4231 or Toll Free 1-877-427-4321

Statement Date	Due Date	Amount Due
01/12/16	02/02/16	137.63
Previous Balance		98.42
Payment(s)		-98.42
Balance Forward		0.00
Current Charges		137.63
<b>Total Amount Due</b>		<b>137.63</b>

Thank you for your business.

## Natural Gas Service



Svc Loc:	JOHN Q SAMPLE	123-456-7890					
Walton Account: 123456789	AGL Meter: 123456789121	<b>24 Bills Res Fixed</b>					
AGL Account: 1234567891	Thermal Factor: 1.029	<b>Fixed</b>					
Price Per Therm: 0.529	DDCC: 0.872						
FROM	TO	LAST READ	CURRENT	MULTIPLIER	CCF	THERMS	AMOUNT
11/25/15	12/28/15	6899	6941	1	42	43	22.75
AGL Base Charge for January							28.70
Service Charge							3.73
Taxes							3.43
Gas Consumption Charge							60.63
Previous Balance							43.42
Thank You For Your Payment 01/04/16							-43.42
<b>Total Account Balance</b>							<b>60.63</b>

TO BE PAID BY DRAFT

[Breaking Down Your Gas Bill \(walgongas.com\)](http://walgongas.com)





SERVICE FOR  
John Smith  
1000 Main St  
City, GA 12345

BILLING ACCOUNT NUMBER  
8675309551234  
INVOICE NUMBER  
987556624651234

Page 1 of 3  
DATE DUE  
Sep 30 2022

AMOUNT DUE  
\$33.11

CUSTOMER SERVICE  
1.877.467.2282

7am - 8pm, Monday - Friday  
8am - 5pm, Saturday  
customersupport@scanaenergy.com

GAS LEAK EMERGENCIES (AGL)  
1.877.427.4321

BILLING ACCOUNT NUMBER  
8675309551234

ATLANTA GAS LIGHT ACCOUNT NUMBER  
761851234

SEPTEMBER BILL GENERATED ON  
09/10/2022

To see detailed information, log in to your account at [scanaenergy.com](http://scanaenergy.com)

PLEASE KEEP THIS PORTION FOR YOUR RECORDS.

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT, MAKING SURE THE RETURN ADDRESS SHOWS IN THE ENVELOPE WINDOW



2231 S. Centennial Ave  
Aiken, SC 29803

BILLING ACCOUNT NUMBER  
8675309551234  
AMOUNT DUE DATE DUE  
\$33.11 Sep 30 2022  
AMOUNT DUE AFTER DUE DATE  
\$43.11

Please order amount enclosed

\$

Write billing account number on check and make payable to SCANA Energy

JOHN SMITH  
1000 MAIN ST  
CITY, GA 1234

SCANA Energy  
PO BOX 105046  
ATLANTA, GA 303485046

00000000063101303203662022093000000033115

# SCANA Energy



Page 3 of 3

DATE DUE  
Sep 30 2022

AMOUNT DUE  
\$33.11

## CURRENT CHARGES

### Monthly Charges

#### RATE PLAN

SCANA Variable

#### METER READING

Read on 09/02/22

DDDC

0.041

METER NUMBER	BILLING PERIOD	DAYS	CURRENT	PREVIOUS	USAGE (CCF)	BTU FACTOR	THERMS
003461234	08/04/22 09/02/22	29	191	- 190	= 1	× 1.035	= 1.0

### September Charges

Natural Gas Consumption Charge	1.0 Therms × \$1.9000	\$1.99
Customer Service Charge		\$5.95
AGL Pass Through Charge		\$23.32
State and Local Taxes		\$1.85
<b>Total Monthly Charges</b>		<b>\$33.11</b>





# Georgia Power - Different Residential Rate Plans



## Smart Usage

Save on your electricity costs by choosing how and when to use your energy.



## FlatBill®

Manage your budget with a 12-month, fixed bill that doesn't fluctuate.



## Plug-In EV

Electric vehicle owner? Save money by charging your vehicle overnight.



## PrePay

Control when and how much you pay by prepaying for your electric service.



## Residential Service

Our traditional rate plan with prices that vary throughout the year.



## Nights & Weekends

Small changes in when you use energy during the summer can bring savings.



## Pay by Day

The Pay by Day rate plan combines the convenience of PrePay with the certainty of a fixed daily price.





RATE OPTIONS TO  
FIT YOUR NEEDS



Georgia Power

# Rate Plan Options

Georgia Power offers 7 rate options to meet our customers energy needs

Smart Usage



FlatBill



Plug-In EV



PrePay



Residential  
Service



Nights &  
Weekends



Pay by Day





# Residential Rate and FlatBill



## Residential / Seasonal Rate

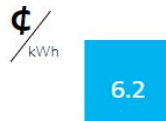
- Our traditional rate plan with prices that vary throughout the year.

 **SUMMER** (June-September)  
Basic Service Charge: **46.03¢/day**



\* Prices are approximate and do not include fuel, taxes, and other changes

 **WINTER** (October-May)  
Basic Service Charge: **46.03¢/day**



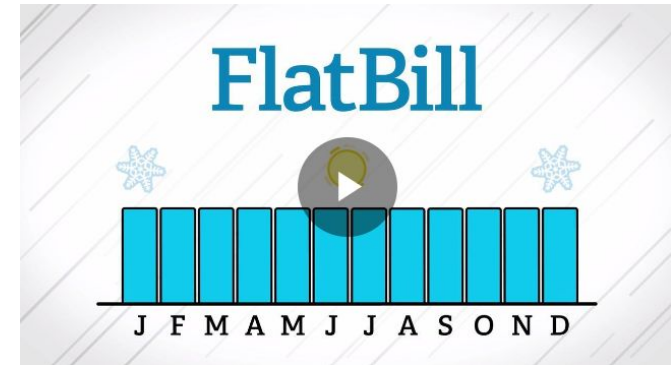
All Energy Use

\* Prices are approximate and do not include fuel, taxes, and other changes



## FlatBill Rate

- Manage your budget with a 12-month, fixed bill that doesn't fluctuate.



**FlatBill**  
- means -  
**No Surprises**



# Programs, Products & Services

Georgia Power offers 7 rate options to meet our customers energy needs:  
PEV, Residential, PrePay, Pay-by-Day, Smart Usage, Flat Bill, Nights & Weekends



Customers 65 years of age and over who meet the annual income requirements of \$30,120 or less can receive up to **\$33.50** a month off their utility bill each month. ( \$402 annually)

- 65 years or older
- Income \$30,120 or less
- Primary Account holder



**Low-Income Home Energy Assistance Program (LIHEAP)** Available every year from December to April and May through July from the Division of Family & Children Services, this program helps income-eligible households pay for heating and cooling costs. Eligible customers can receive \$400 or \$500 depending on their age and income.



**Project SHARE:** Established in partnership with The Salvation Army, customers can provide assistance to residents in the same community for expenses such as utility bills, housing, food and medical necessities.



Healthy Home


**Income-qualified** Georgia Power customers may be eligible for free home energy efficiency improvements through our Energy Assistance for Savings and Efficiency Program.



# Georgia Power

## Traditional Residential Rate Plan Sample Bill

### Interactive Sample Bill

 [My Account](#) [Outages](#) [Start/Stop Service](#) [Support](#)

[My Energy](#) [Residential](#) [Business](#) [Community](#) [Company](#) [Shop](#) [Q](#)

[Front Page](#) [Back Page](#)

Page 1 of 2

**Please Pay By** <sup>4</sup> Jun 22, 2022

**Total Due** <sup>5</sup> \$ 36.91

 <sup>1</sup> **Customer Name** JOHN SMITH <sup>3</sup> **Account Number** 00000-00000

<sup>2</sup> **Service Address**  
123 SAMPLE ST  
UNIT 1000

<sup>6</sup> **Service Period**  
Apr 29, 2022 - June 1, 2022

#### Billing Summary

Previous Bill Amount	Thank You!	<sup>7</sup> \$ 29.83
Payment Received On 05/17/22		<sup>8</sup> -29.83
Current Electric Service		+36.91

<sup>9</sup> **Total Due \$ 36.91**

<sup>10</sup> Balances unpaid after the due date are subject to a late charge of 1.5% of the amount due or \$2.00, whichever is greater.

#### Contact Us

[georgiapower.com](http://georgiapower.com)

<sup>11</sup> Account Number	<sup>12</sup> Web Access Code
00000-00000	123456
<sup>13</sup> Customer Service	<sup>14</sup> Power Outage Reporting
1-888-660-5890	1-888-891-0938
7A-7P Mon-Fri	24/7
Espanol 8A-6P	
Chat 8A-6P	

#### Go Paperless!

Clear the clutter of paper by using paperless. Receive email

[Interactive Sample Bill](#)  
 [\(georgiapower.com\)](http://georgiapower.com)



# Fixed Charges vs. Usage Charges

## *Traditional Residential Rate Plan Sample Bill*

<b>Billing Period</b>	
Apr 29, 2022 - June 1, 2022	
<hr/>	
Current Service <sup>35</sup>	\$ 27.90
Environmental Compliance Cost <sup>36</sup>	4.37
Nuclear Construction Cost Recovery <sup>37</sup>	0.90
Municipal Franchise Fee <sup>38</sup>	1.01
Sales Tax <sup>39</sup>	2.73
<hr/>	
<sup>40</sup> <b>Total Current Electric Service</b>	<b>\$ 36.91</b>



**Current Service fee =**

**Fixed Basic Service Charge + Variable Use Charges per kWh\* (2)**

**\*kWh = kilowatt-hour**

<https://www.georgiapower.com/residential/billing-and-rate-plans.html>

# Georgia Power Residential Bill Riders – *on a Bill*

## Billing Period

Apr 29, 2022 - June 1, 2022

Current Service <sup>35</sup>	\$ 27.90
Environmental Compliance Cost <sup>36</sup>	4.37
Nuclear Construction Cost Recovery <sup>37</sup>	0.90
Municipal Franchise Fee <sup>38</sup>	1.01
Sales Tax <sup>39</sup>	2.73
<hr/>	
<b><sup>40</sup> Total Current Electric Service</b>	<b>\$ 36.91</b>

- Fees assessed to cover various costs such as **environmental regulation** and **conservation expenses** and/or to mitigate **unforeseen expenses**.
- In **Current Service fee** (#35): a. Fuel Cost Recovery & b. Demand Side Management Residential riders are included
- **Line-item riders** (#36-38): a. Environmental Compliance, b. Nuclear Construction, and c. Municipal Franchise Fee

<https://psc.ga.gov/utilities/electric/georgia-power-bill-calculator/>

# Tips on Reducing your Energy Bill



# Energy Efficiency

- See materials from Community Event 1



# Customer Assistance Programs

- Low Income Home Energy Assistance Program (LIHEAP)
- Energy-Saving Education Programs by Utilities
- Weatherization Assistance Program (WAP)
- Partnership for Community Action, Inc. - access their utility assistance page directly here: [Energy Assistance Heating](#)

<https://www.ibenvironmental.com/blog/2023/10/30/energy-assistance>

ce:

WATER AFFORDABILITY STORMWATER & WATERSHED MANAGEMENT  
GEORGIA FUNDERS' FORUM  
CARIBBEAN ENVIRONMENTAL MANAGEMENT



FUNDERS' RESOURCES OUR TEAM  
WAVES & WATTS - A FINANCE BLOG CONNECT

LOW-INCOME ENERGY ASSISTANCE PROGRAMS IN GEORGIA

OCTOBER 30, 2023 · COMMENT

By Stacey Isaac Berahzer and Alanna Kinnebrew



For many low-income families, utility bills can be a major financial burden. Many households have to decide whether their income will allow them to run a fan, run the air conditioning unit, or neither on a hot day. There are energy efficiency resources that can help a household, but affordability of utility bills remains a significant concern, especially in the southeastern United States. This post will highlight some of the existing assistance programs to address energy bills.

As shared in the previous blog post, *Energy Burden and Its Drivers*, many households in the Southeastern United States have high energy burdens. Fortunately, there are various ways households who are overburdened by energy costs can seek assistance. The programs fall into two main buckets: bill payment assistance programs, and energy efficiency programs. As part of the DeKalb County's Energy Transition project team, this post shares resources that Georgia residents can utilize when seeking assistance for energy costs.



# Next Steps

New Ways to Engage with Your Neighbors About Energy



# How Can you Engage with your Neighbors After this Training?

- Community Event 4 is coming up soon
- Stay tuned here: <https://cleanenergydekalb.com/>



# Your Feedback



- *CCC Cohort = Community Climate Champion Cohort*



## CONTACT

# Stacey Isaac Berahzer



[stacey@ibenvironmental.com](mailto:stacey@ibenvironmental.com)



770.509.3887



[@StaceyIB\\_enviro](https://twitter.com/StaceyIB_enviro)



[@IBenvironmental](https://twitter.com/IBenvironmental)



[linkedin.com/company/ibenvironmental](https://www.linkedin.com/company/ibenvironmental)





# DeKalb's Clean Energy Plan

## Community Event #4

**Saturday, March 16th**

**3:00 to 5:00 pm**

**Hairston Crossing Library**

4911 Redan Rd, Stone Mountain, GA 30088



In partnership with DeKalb's Clean Energy Plan, join us at our 4th community event! This session will cover the regulatory framework behind Georgia's utilities. Discover how your utility is regulated and how it affects members of the community!



**Scan QR Code and Register Now!**



Hosted by:  Southface



Clean  
Energy  
DeKalb



  
DeKalb County  
GEORGIA

# DeKalb's Clean Energy Plan Community Event #4

"Discover How Your Utility is Regulated"



## Save The Date:

March 16th 3:00 pm - 5:00 pm

Hairston Crossing Library  
4911 Redan Rd, Stone Mountain, GA 30088



Hosted by:



**Southface**



**Clean  
Energy  
DeKalb**



**DC**  
DeKalb County  
GEORGIA



# Southface

## Dekalb County Clean Energy Transportation Transition Plan

Community Engagement Session 4

# Southface Institute

- **Nonprofit** delivering practical building and infrastructure solutions to environmental challenges since 1978
- **Eco-Office** with green roof in Atlanta
- New **Southface Sarasota** satellite location
- About **40 Southfacers** who have 50+ professional certifications total
- **Sustainable solutions** that work for everyone



# The partners







## 4. Recommendations on Increasing Equity and addressing energy burden within the County

# POCKETS OF POVERTY

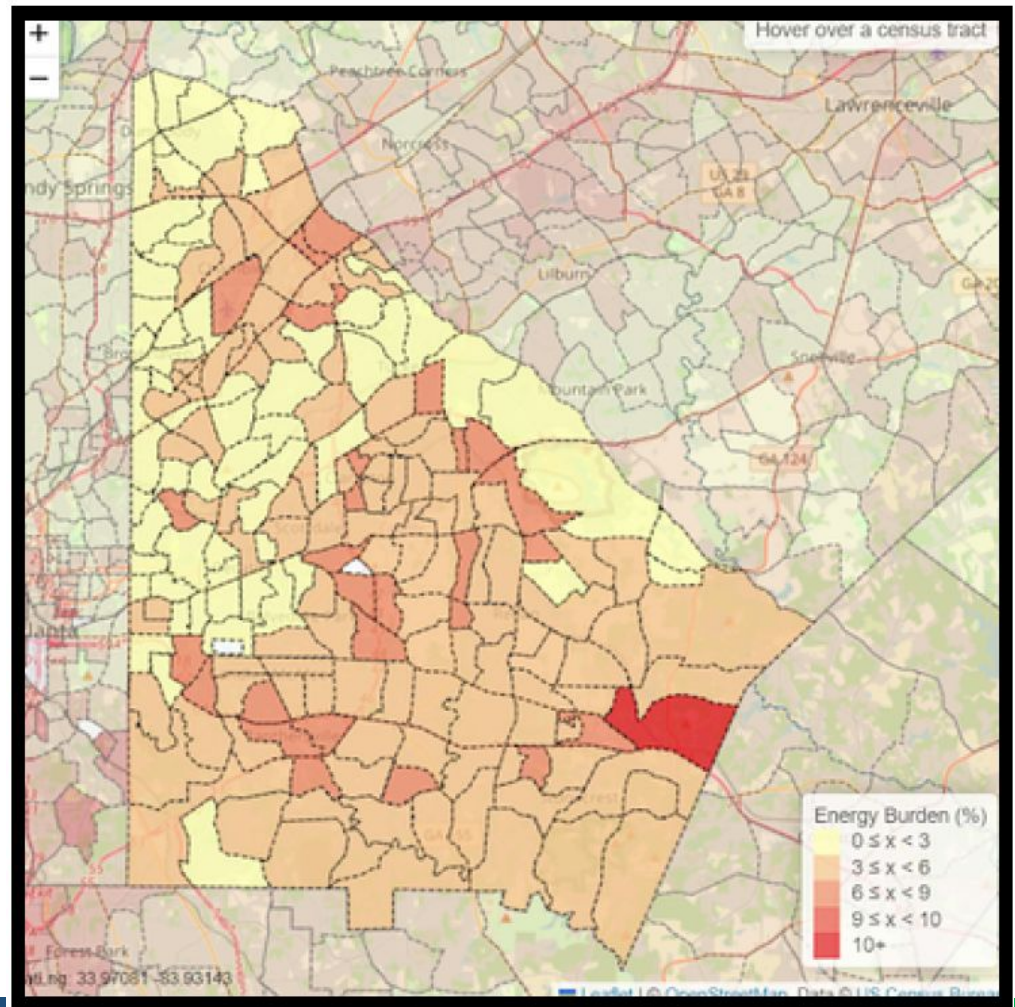
Dekalb County  
Equity Map



Prepared By:  
**IB Environmental**

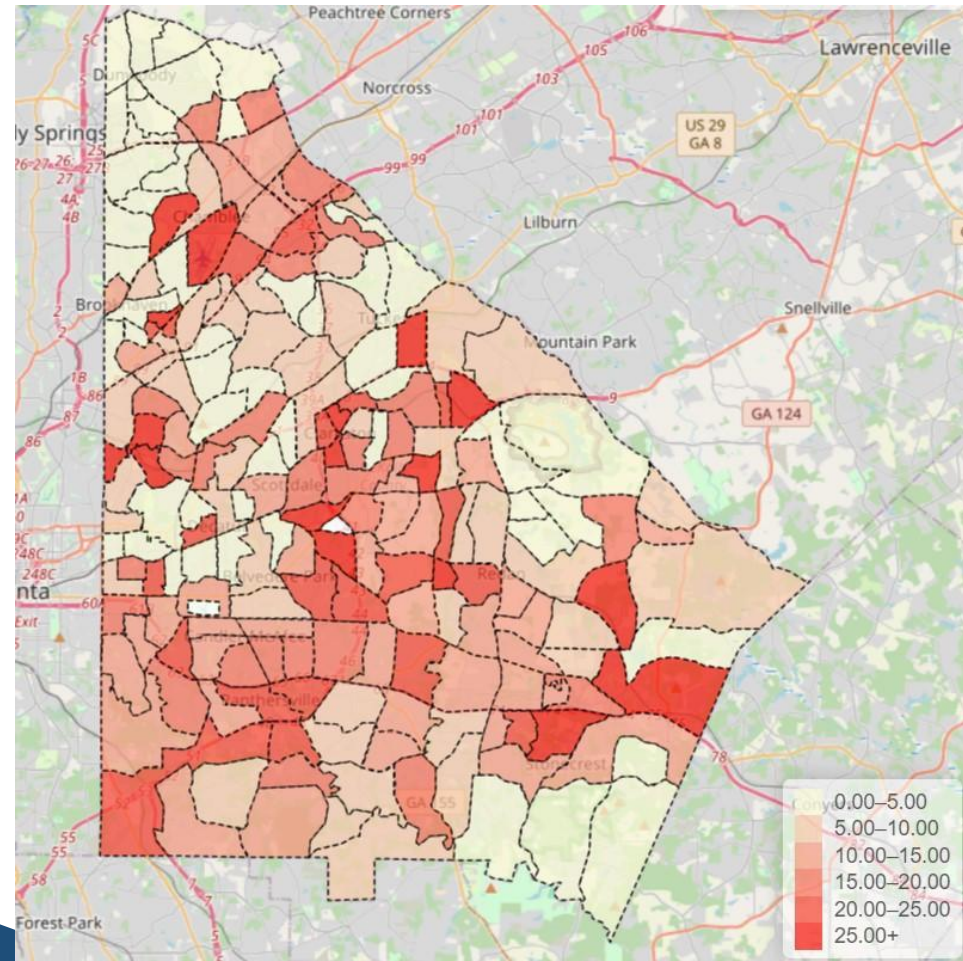
# Monthly Energy Burden (Electricity and Gas as a Percent of Median Household Income) for Different Census Tracts in DeKalb County

(Energy Burden- Assumed Bills are \$150 for electricity + \$80 for gas)



# Percent of Households Living Below the Poverty Level for Different Census Tracts in DeKalb County

(The darker the red, the higher percentage of households in the census tract are in poverty.)

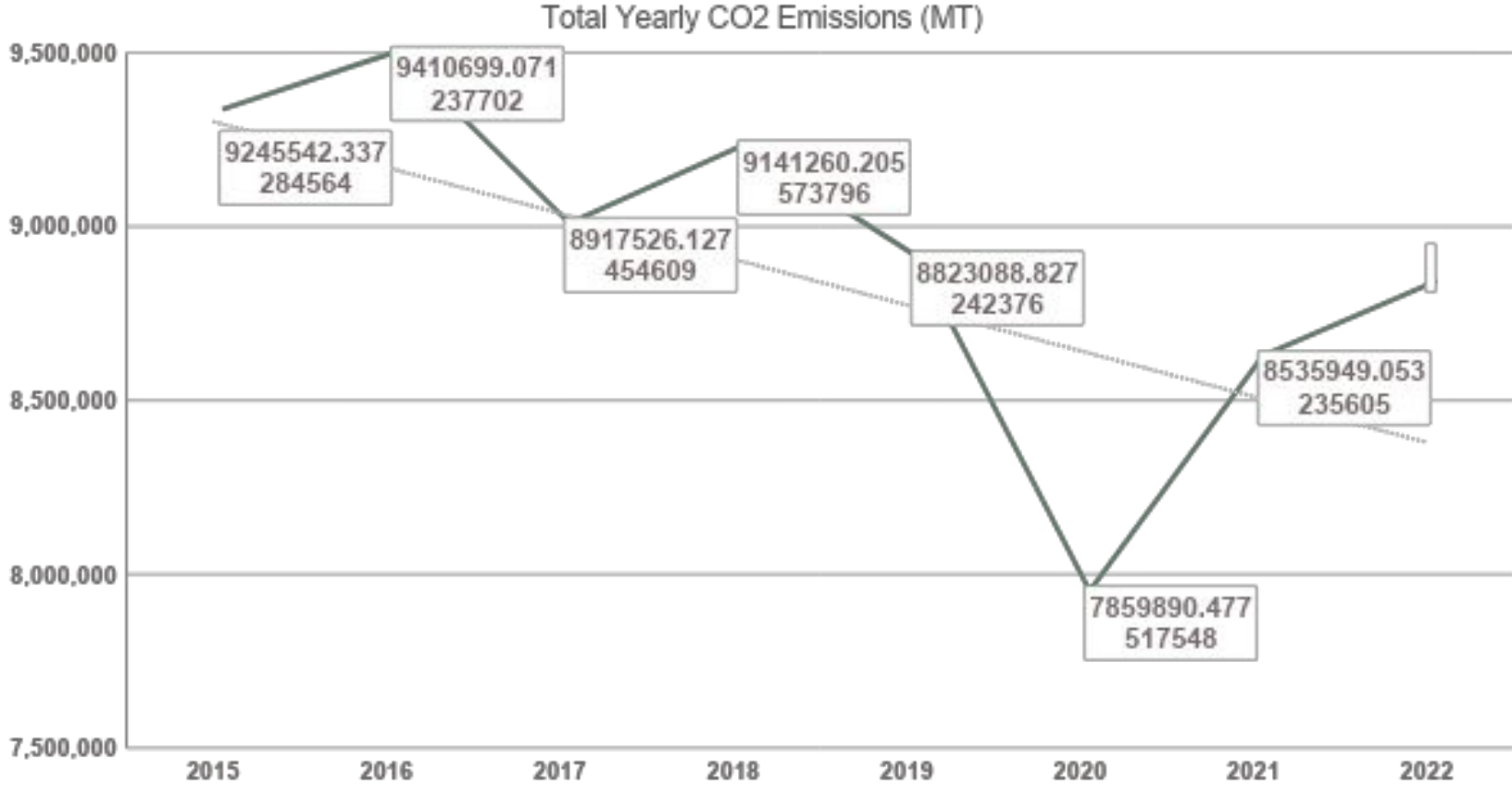


## 8. Development of Greenhouse Gas Inventory for County Govt facilities and fleet, and community county-wide

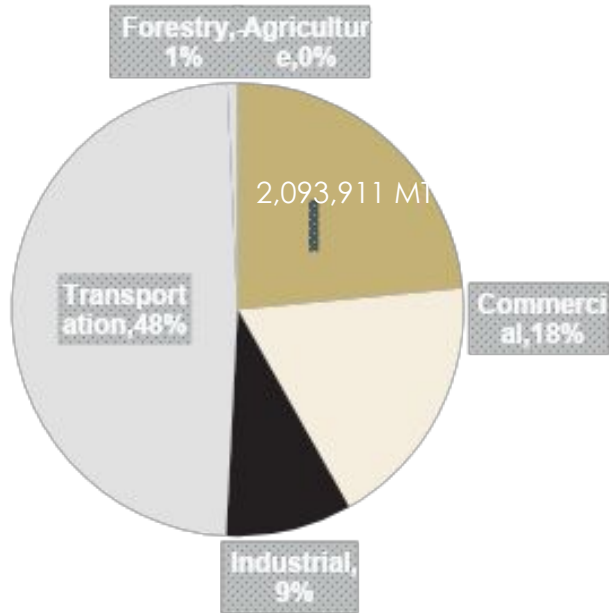




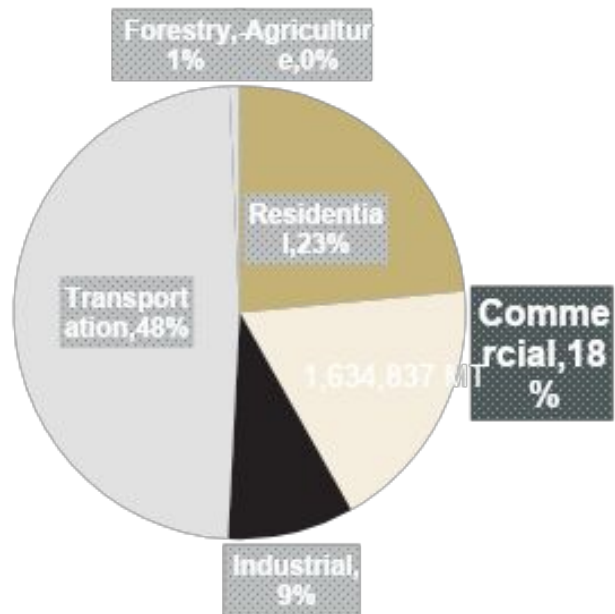
# 2022 DEKALB COMMUNITY EMISSIONS IN CONTEXT



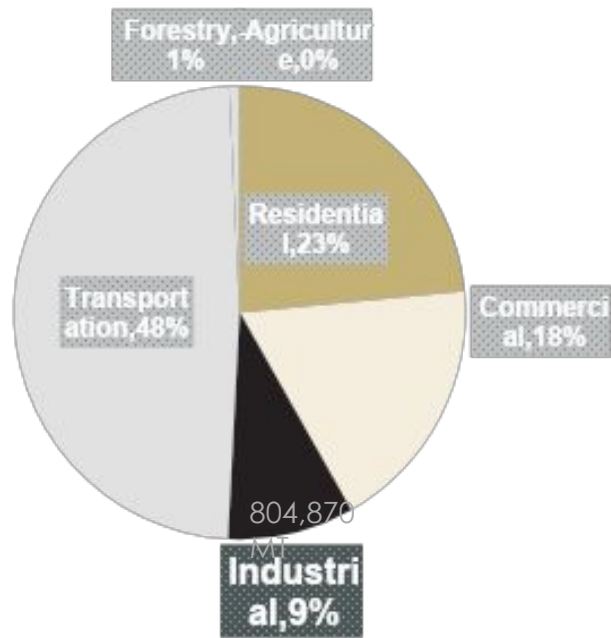
# RESIDENTIAL SECTOR EMISSIONS



# COMMERCIAL SECTOR EMISSIONS

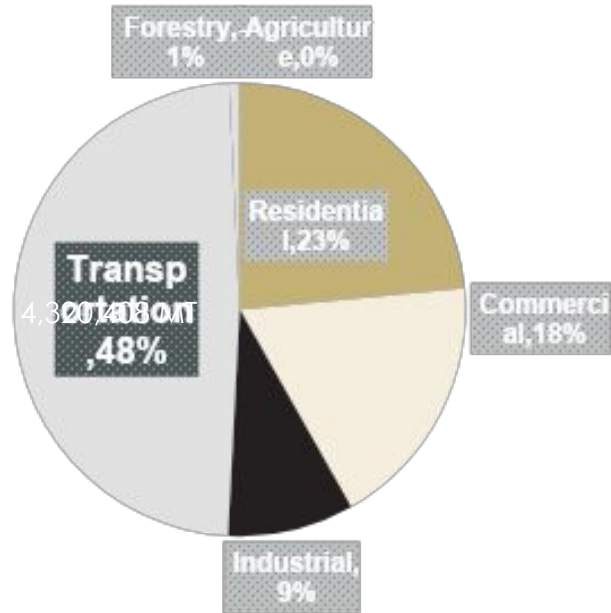


# INDUSTRIAL SECTOR EMISSIONS



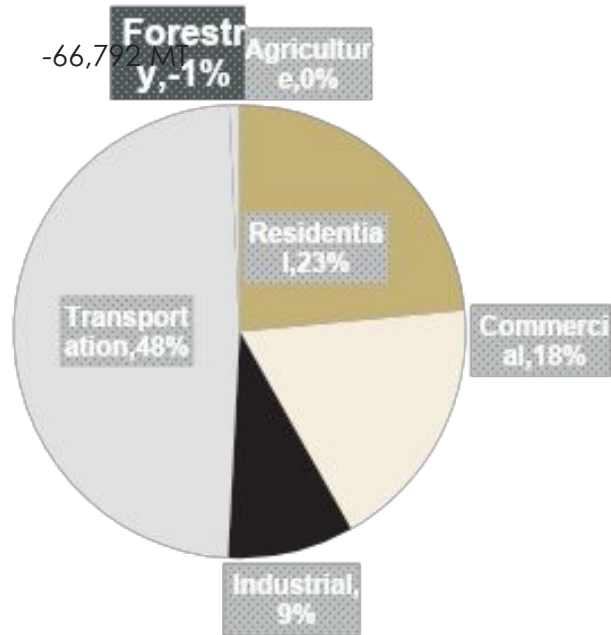


# TRANSPORTATION SECTOR EMISSIONS

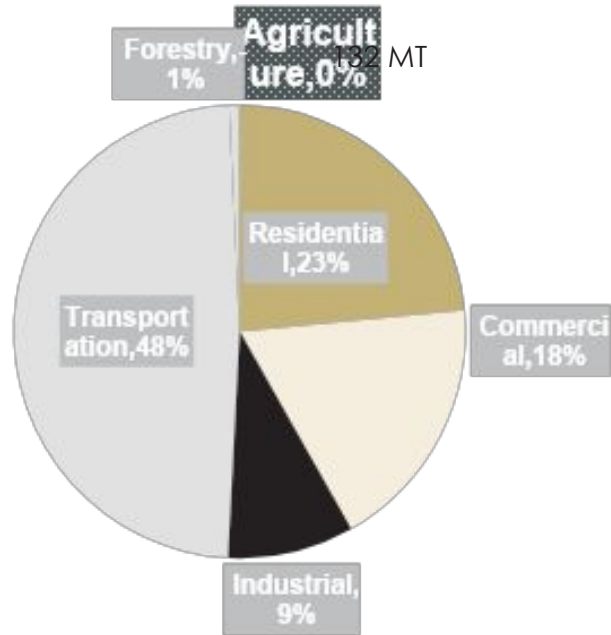




# FORESTRY SECTOR EMISSIONS



# AGRICULTURE SECTOR EMISSIONS



## 5. Public Stakeholder Inclusion for an Open, Inclusive, and Transparent Planning Process

Creation of a website: [www.cleanenergydekalb.com](http://www.cleanenergydekalb.com)

Monthly meetings

Weekly working groups



### 3. Analysis of DeKalb County's municipal solar potential

●  
C H E R R Y  
- - - - -  
S T R E E T  
- - - - -  
E N E R G Y

## 6. Assistance in Development of a Clean Electricity and Vehicle Procurement Strategy





Remaining

# Project tasks

1. Recommendations on addressing DeKalb's Clean Energy Goals
2. Recommendations on Energy Efficient methods to meet the County's Energy Needs

## How to transition to clean energy



Educate community  
& stakeholders



Collaborate with  
residents, businesses,  
& institutions



Set goals and track  
progress



Invest in solar energy  
& other renewable  
sources



Reduce energy use  
through efficiency  
upgrades



Reduce reliance on  
fossil fuels

# 7. Creation, education and engagement of a DeKalb Climate Task Force



## **9. Development of clear benchmarks and milestones for the County during the transition to 100% clean and renewable energy and transportation**

Develop ACES model

Create access to a comprehensive Equity Mapping Platform

Complete a correlational study of the underlying conditions of energy burden

Develop a simplified forecasting model

Project economic development and industry impacts

## 10. Development of a clear process whereby the County Commission will receive updates on progress and take steps to hit benchmarks





# 11. Deliver final draft transition plan report to the Chief Executive Officer & Board of Commissioners



DeKalb County  
G E O R G I A

## Sessions

<https://cleanenergydekalb.com/>

Session 1: Mythbusting Energy Advice and Sales Pitches

Session 2: DIY Energy Improvements

Session 3: Community Energy Empowerment

TODAY: Regulatory Framework



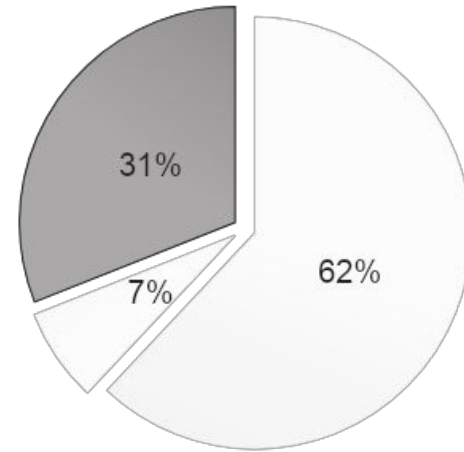


**Engaging the Georgia  
Power Integrated  
Resource Plan**

# Retail Electric Utilities in Georgia

- Investor-owned – 1
  - Georgia Power (GPC)
  - Savannah Electric merged with GPC in 2006
- Electric Membership Cooperative – 41
  - 38 participate in Oglethorpe Power
- Electric Cities (“Munis”) – 51 cities and 1 county
  - 49 participate in MEAG

Retail Electricity Sales in GA by Utility Type - 2020



□ Investor Owned □ Municipal ■ Cooperative

Slide Source: 2022 Georgia IRP – Training & Collaboration Roundtable







# Energy Regulation by Utility Type

- Investor-owned – Georgia Power
  - Fully regulated by Georgia PSC (rates, planning, etc.)
- Electric Membership Cooperative – 41
  - Georgia PSC only oversees territorial disputes & transfers, loan applications, rate tariff filings
  - Other functions overseen by elected Boards of Directors
- Electric Cities (“Munis”) – 51 cities and 1 county
  - Georgia PSC – same as for EMCs
  - Other functions overseen by elected City Council

Slide Source: 2022 Georgia IRP – Training & Collaboration Roundtable



# Georgia Public Service Comr

- 5 Commissioners with staggered 6-year terms
- Supported by about 75 staff members
- What Does the PSC Regulate?
  - *Non-environmental* aspects of investor-owned electricity, natural gas and telecommunication utilities
- Balancing Act
  - Protecting customer interests while ensuring financial health of utilities



# The Commissioners (March, 2024)



**Jason Shaw**  
District 1



**Tim Echols**  
District 2



**Fitz Johnson**  
District 3



**Lauren "Bubba"  
McDonald**  
District 4



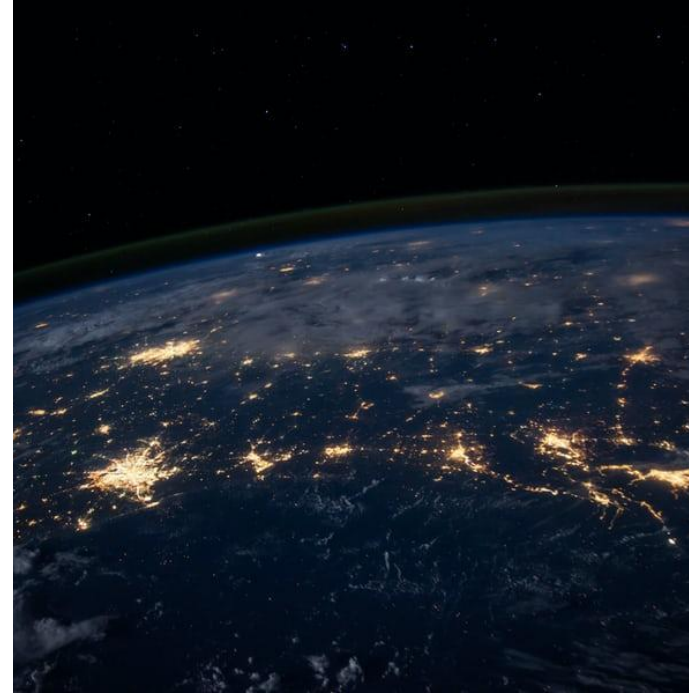
**Tricia  
Pridemore**  
District 5



# What is Integrated Resource Planning (IRP)? (*generally*)

---

- **IRP is a public process in which utility planners work together with interested parties and the public to identify and prepare energy options that serve the public interest.**
- “Integrated” process
  - Supply and demand-side options
- State Authority
  - State utility commission
- Key Elements
  - Scope, options, scenarios, plan selection, EM&V, adjustments



# Georgia Power 2022 IRP: Training & Education Plans

Southface  
Partners:



- **Background:**
  - Filed every 3 years, 20-year plan.
  - Outlines how Georgia Power, the state's largest utility, will direct ratepayer-funded energy efficiency, generation, transmission, and distribution investments
  - Broad impact: infrastructure, energy equity, environment, and economic development.
  - Public stakeholders can direct investment decisions.
- **Goals:** Prepare newcomers and veterans alike to effectively engage in 2022 IRP, and increase agency in underserved communities to address energy burden and equity issues.
- **Action:** Six-part training and roundtable discussion series
- **Learn more & register at:** [www.Southface.org](http://www.Southface.org)



# IRP Process



Utility  
Filing



Discovery  
/ Data  
Request



Testimony  
Pre-Filings



Three Sets  
of Hearings



Final  
Briefs



Stipulation  
Negotiations



Advisory  
Staff  
Rec



Final  
Decision



# Expert Witnesses and Testimony

- Quasi-Judicial Process
  - Hearing “feels” like court proceeding
  - Expert witnesses sworn in and cross examined
- Company Witnesses
  - GPC and SoCo Directors of Resource / System / Market Planning
  - GPC and SoCo Environmental Staff
- Staff Witnesses
  - Staff & supporting experts to focus on most / all key elements
- Intervenor Witnesses
  - Range of intervenors, range of topics
  - Fairly heavy on renewables and DSM issues

Slide Source: 2022 Georgia IRP – Training & Collaboration Roundtable



# Who Gets Involved

## Company

- Lawyers (Troutman)
- Regulatory Staff
- Expert Witnesses (staff and other)

## PSC Staff

- Advisory Staff
- Advocacy Staff
- Expert Witnesses (staff and other)

## User Groups/ Associations

- GA Industrial Group
- GA Association of Manufacturers
- Commercial Group
- Resource Supply Management

## Generator Groups/ Associations

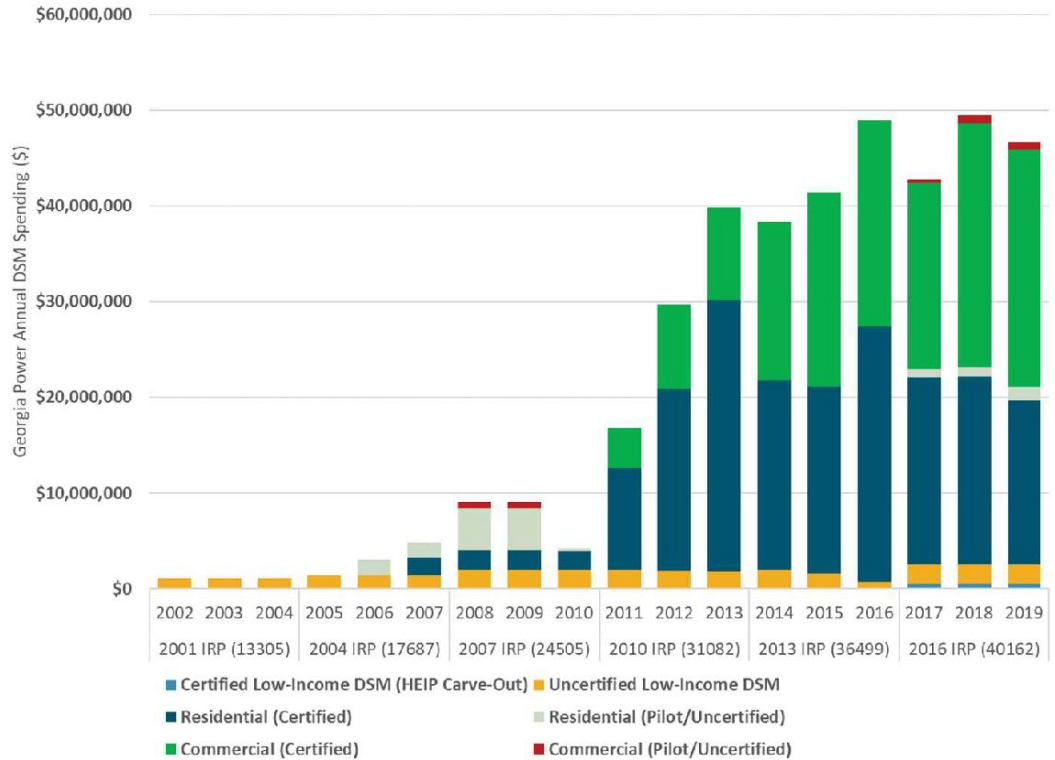
- Clean Line Energy
- GA Large Scale Solar Assoc.
- GA Solar Energy Assoc.
- GA Solar Energy Industries Assoc.
- The Ray
- Southern Renewable Energy Assoc.

## Advocates / NGOs

- GA Interfaith Power and Light
- GA Watch
- Partnership for Southern Equity
- Sierra Club
- Southern Alliance or Clean Energy
- Southern Env Law Center
- Southface
- The Ray
- Vote Solar



# Energy Efficiency Progress



Slide Source: 2022 Georgia IRP – Training & Collaboration Roundtable





# Interim IRP



# Interim IRP

## 2023 Georgia Power IRP Update

The Georgia Power Company (GPC) submitted its 2023 IRP Update (Docket 55378) on October 27, 2023. GPC forecasts a surge in new electrical demand in Georgia, requiring it to file an expedited update before the 2025 IRP to secure additional capacity earlier than initially projected.

- GPC cited robust economic development in the state, driving a 17-fold increase in electricity load growth through 2031 compared to what the utility forecasted in the 2022 IRP.
- GPC included requests for new resource acquisition starting the winter of 2025-2026, three years earlier than projected in the 2022 IRP.
- There are five upcoming events for the 2023 IRP Update.
  - 03/27/24 - 03/28/24 - Hearing on GPC Rebuttal Testimony
  - 04/04/2024 - Briefs filed
  - 04/11/2024 - Energy Committee and Advisory Staff Recommendations
  - 04/16/2024 - PSC Decision



# IRP Engagement Options

What are the ways to get involved in the IRP?

*Range of options, with varying levels of effort/ commitment:*

- ***Making Public Comment***
- ***Meeting with Commissioners***
- ***Letter Writing***
- ***Protesting the Proceedings***
- ***Intervening in Docket*** – becoming a formal party to the IRP requires a stakeholder to file a petition for leave to intervene. The subsequent level of effort can range. The three sub-bullets below describe three possible levels of intervention.
  - ***Low***: intervene in the proceeding to receive and track filings, elect whether to attend hearings.
  - ***Medium***: intervene in the proceeding, actively review all expert witness testimony, attend all hearings, cross-examine witnesses, file necessary briefs, and participate in any settlement negotiations.
  - ***High***: enlist expert witness(es), file expert testimony, put expert witness(es) up for cross-examination, and conduct all activities outlined in Medium scenario.



# Recent Coalition of Local Government Actions

# TESTIMONY ON BEHALF OF CLG-VIRTUAL POWER PLANTS

- A VPP includes two critical components:
  - 1) Behind-the-meter (“BTM”) distributed energy resources or “DERs.” DERs include rooftop solar, battery storage systems, and intelligent digitalized loads (such as electric vehicles, smart thermostats, and interactive water heaters).
  - 2) Software enabling behind-the-meter DERs to be controlled and networked with similar devices. Together, they bring aggregated value to the electrical grid.
- When this collection of small-scale energy resources is coordinated and activated during periods of high demand, a VPP can perform the role of a traditional power plant.



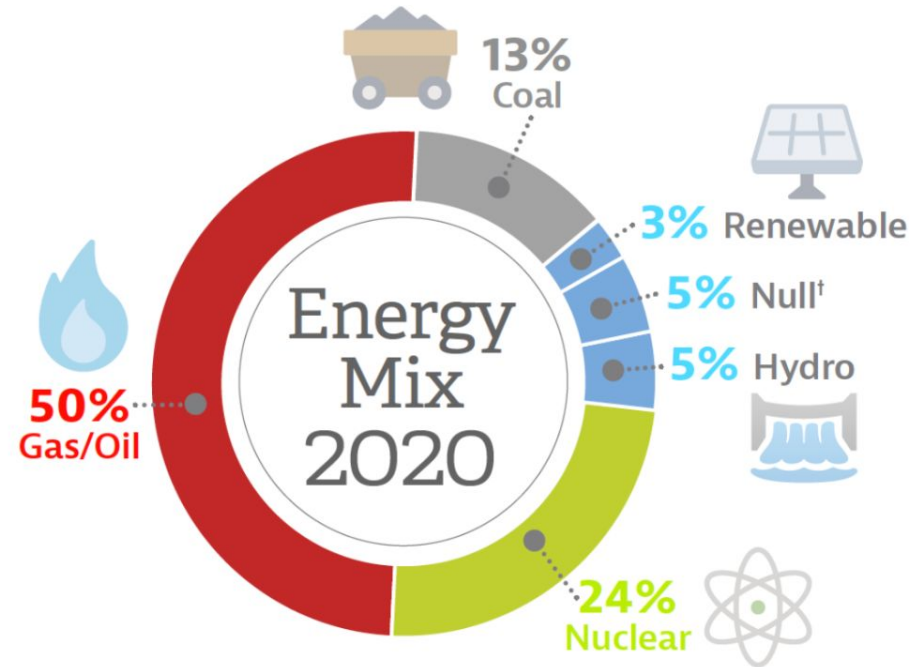


# Potential IRP Topics

# GA POWER'S CURRENT ENERGY MIX

## Generating Capacity

	Total Georgia Power Kw Capacity
Gas/Oil	6,297,942
Coal	4,836,474
Nuclear	1,959,852
Hydro	1,099,882
Renewables	219,306
<b>Total</b>	<b>14,413,456</b>

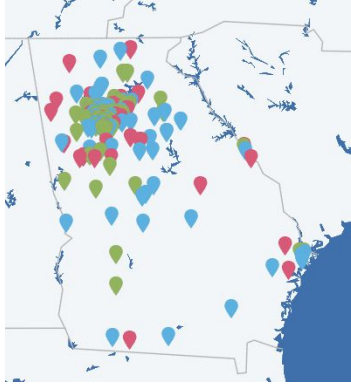


# WHAT IS RENEWABLE ENERGY?

- Solar photovoltaic (fixed or tracking)
- Solar thermal
- Wind power
- Geothermal
- Biomass or biogas
- Hydro power
- Energy storage\*\* if charged solely by a renewable resource for the term of the PPA

Note: all energy must be bundled with Environmental Attributes / RECs

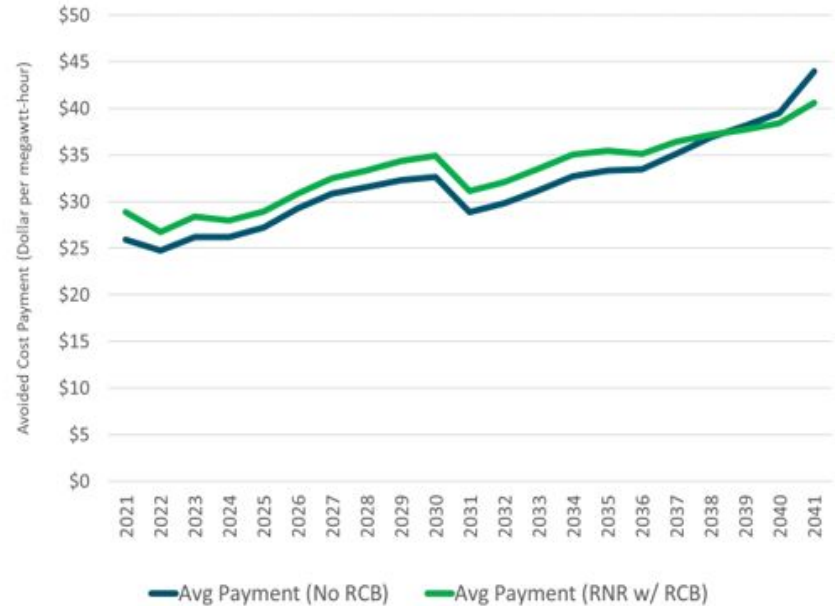
# Georgia's solar market



- **Solar Installed (MW):** 3,248.6
- **National Ranking:** 9<sup>th</sup> as of Q1 2021
- **Enough Solar Installed to Power:** 373,248 homes
- **Percentage of State's Electricity from Solar:** 3.65%
- **Solar Jobs:** 4,466
- **Solar Companies in State:** 222 (57 Manufacturers, 75 Installers/Developers, 90 Others)
- **Total Solar Investment in State:** \$3.8 billion
- **Prices have fallen** 36% over the last 5 years
- **Growth Projection and Ranking:** 2,082 MW over the next 5 years (ranks 17th)
- **Number Of Installations:** 3,425

# RENEWABLE COST BENEFIT FRAMEWORK

RCB Component	Utility Scale	Dist. Gen.
Avoided Energy Costs	↑	↑
Deferred Generation Capacity Costs	↑	↑
Deferred Transmission Investment	?	↑
Reduced Transmission Losses (Energy Related)	↑	↑
Reduced Transmission Losses (Capacity Related)	?	↑
Reduced Distribution Losses (Energy Related)	---	?
Generation Remix	?	?
Ancillary Services – Regulation	↓	↓
Support Capacity (Flexible Reserves)	↓	↓





# SIMPLE SOLAR PROGRAM



## Simple.

Only takes minutes to sign up and claim solar energy for an additional 1¢ per kWh.



## Flexible.

You can match 50% or 100% of your monthly energy usage. No long term commitment and no cost to cancel.



## Local.

Solar Renewable Energy Certificates (RECs) purchased by the program are from 100% Georgia facilities.

- Launched January 2017
- Ended 2020 with 1,587 participants (primarily residential customers offsetting 50% or 100% of their energy usage with RECs)
- Most energy offsets are from “large volume” subscribers (4 in total)

# COMMUNITY SOLAR

Utility	CS Price	Production Estimate (kWh per month)			Unit Cost (cents per kWh)		
		Low	Avg	High	Low	Avg	High
Georgia Power	\$24.99 per 1 kW block	115	165	215	11.6	15.1	21.7
Habersham EMC	\$25 per 1.25 kW block	136	187	237	10.5	13.4	18.4
Sumter EMC	\$25 per 1.25 kW block	136	187	237	10.5	13.4	18.4
Central Georgia EMC	\$19 per 1 kW block	114	150	186	10.2	12.7	16.7
Okefenokee Rural EMC	\$20 per 1 kW block	120	160	200	10.0	12.5	16.7
Diverse Power	\$25 per 1.25 kW block		201			12.5	
Tri-County EMC	\$25 per 1.22 kW block	160	205	250	10.0	12.2	15.6
Snapping Shoals EMC	\$20 per block	135	165	195	10.3	12.1	14.8
Walton EMC	\$25 per 1 kW block	180	220	260	9.6	11.4	13.9
Satilla Rural EMC	\$18 per block	140	160	180	10.0	11.3	12.9
Greystone EMC	\$22 per block	160	220	280	7.9	10.0	13.8
Coastal EMC	\$25 per block		292			8.6	

## Notes

- Blue font indicates a value estimated by the author. Otherwise, values were taken directly from utility program descriptions.
- Unit cost values were calculated by the author based on monthly price and monthly production estimates
- In most cases, the utility provided a high and low monthly production estimate. In those instances, the author calculated an average monthly production value from these two values
- Diverse Power provided no production estimate. The author calculated an average monthly production value using 730 hours in an average month and a 22% capacity factor.

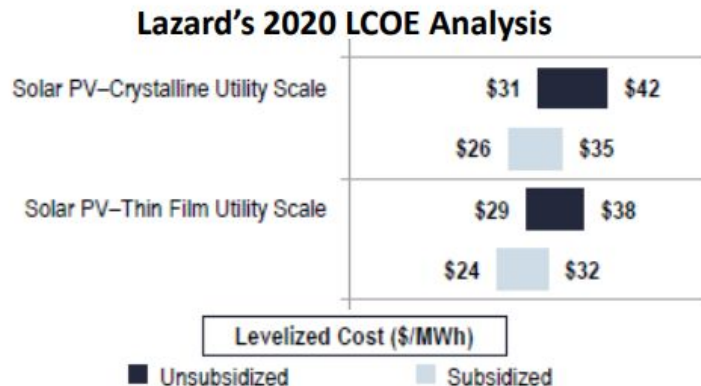
# Solar Photovoltaic

## Cost of Generic Utility Scale Solar PV for IRP Planning

### Prices selected based on market information available to the Company:

- \$25/MWh with 3% annual escalation assuming ITC sunsets as scheduled (equivalent to \$34/MWh levelized)
- \$20/MWh with 3% annual escalation assuming an extension of full ITC (equivalent to \$27/MWh levelized)

Prices are consistent with publicly available industry data\*:



\*<https://www.lazard.com/perspective/levelized-cost-of-energy-and-levelized-cost-of-storage-2020/>

*This information is preliminary, confidential and proprietary and subject to an NDA.*

# LIKELY ISSUES IN IRP

- Size of renewable energy procurement and breakdown (utility scale or distributed / rooftop) and whether subscription or rate-based
- Carve outs for biomass or other technologies
- Role of battery storage
- Renewable Cost Benefit (RCB) Framework
- Subscription offerings: CRSP, Simple Solar, Community Solar, other
- Capacity Value of Renewable Technologies
- Locational Value Study
- Monthly Netting
- Additional sum





Soliciting your  
feedback

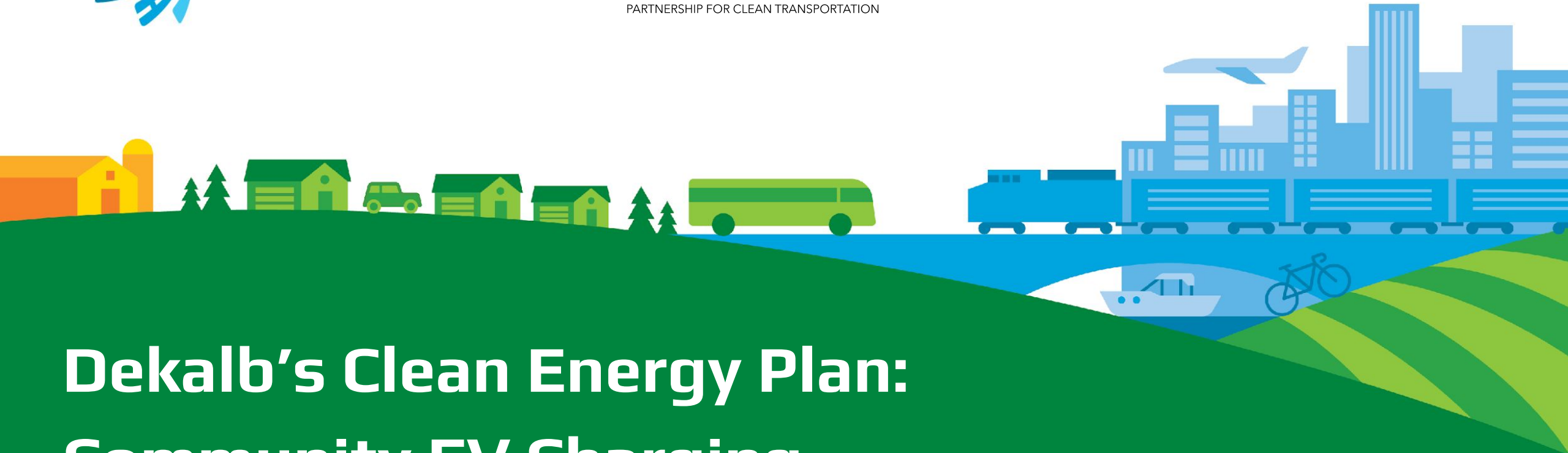


## Q&A: Open discussion

- Are you interested in learning more about IRP and other utility engagement opportunities?
- What would be useful to you? (information/ training/ tech assistance)
- Are there other community members that need to be engaged (ex. electeds)?



**Clean Cities and  
Communities**



# **Dekalb's Clean Energy Plan: Community EV Charging**

# AGENDA

- About Clean Cities Georgia
- Clean Transportation Trivia
- DeKalb Clean Energy Transition Plan
- Dekalb County Fleet
- Community Charging Recommendations
  - Outreach
  - Maps
  - Recommended Locations
- Your Feedback

# What We Do

Advance clean transportation adoption for all communities through:

- Fleet conversions
- Grant matching and partnership
- Education and outreach







# Clean Cities Georgia Team

Hosted at:  **Southface**



**Frank Morris**  
Executive Director



**Matthew Popkin**  
Marketing Associate



**Sumner Pomeroy**  
Program Manager



**Cameron Ages**  
Transportation Associate



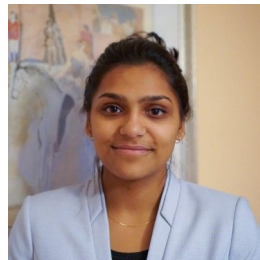
**Pamela Fann**  
Community Engagement  
Liaison



**Lily Perry**  
Grants Fellow



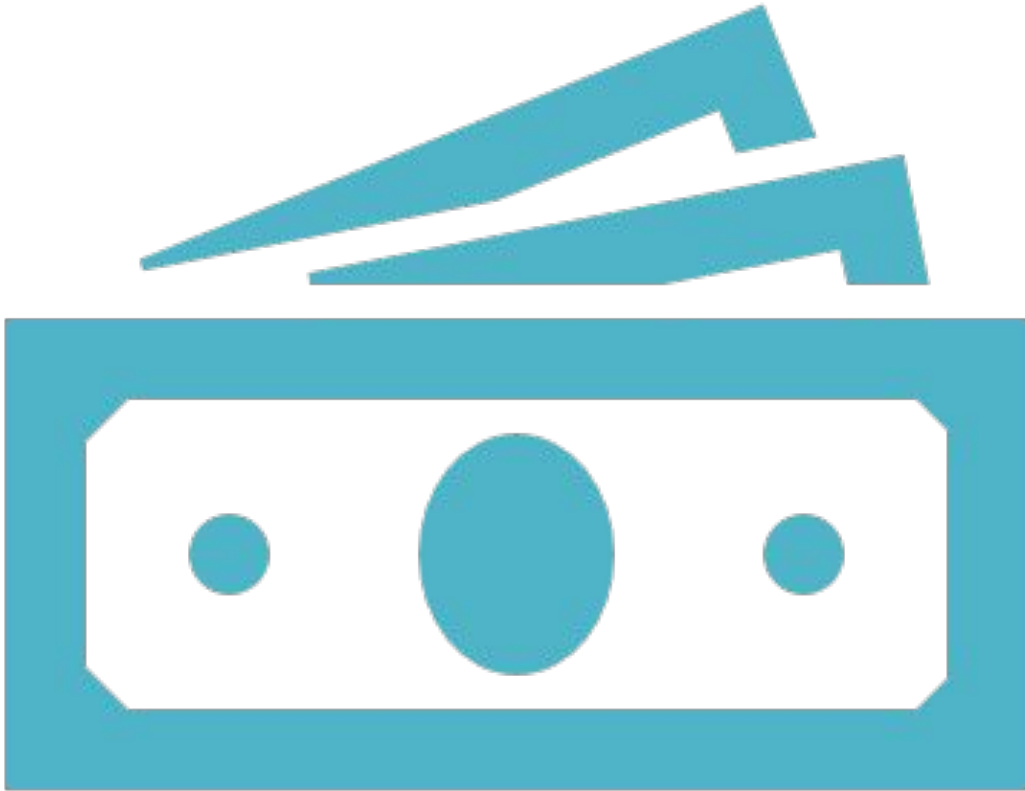
**Spencer Clifford**  
Program Coordinator



**Genie Raven**  
Fleets Fellow

# Clean Transportation Trivia





How much do  
Electric Vehicles  
Cost on average?

- A. **\$15,000-20,000**
- B. **\$60,000-\$80,000**
- C. **\$20,000-\$50,000**
- D. **\$100,000+**

# What is a Time of Use Rate?

- A. A rate offered by electric utilities to incentivize customers to use electricity during specific time periods, generally during lower demand.
- B. A rate offered by some utilities that's based on the length of time an electric vehicle is charging.
- C. A rate offered by some utilities to disincentivize the use of electricity.



What's the maximum range of modern electric vehicles before requiring a recharge?

- A. **500-700 Miles**
- B. **1000 Miles**
- C. **10-30 Miles**
- D. **300-400 Miles**



# An EV battery warranty lasts about

\_\_\_\_\_.



- A. 3-5 Years
- B. 6-7 Years
- C. 8-10 Years
- D. 12+ Years

# What is the primary source of propane?



**Natural Gas Processing**



**Sunlight**



**Hank Hill**



**Fats, oils, and greases**

True or False: You can plug your Electric Vehicle into the same outlet you use for your toaster.

**A. True**

**B. False**



This Photo by Unknown author is licensed under [CC BY-SA](#).

What is the fastest charging station?

- A. Level 2 Charger
- B. Level 1 Charger
- C. Direct Current (DC) Charger
- D. Wireless Charging

# What is the only byproduct emitted by hydrogen fuel cell vehicles during operation?

- A. Carbon Dioxide
- B. Water Vapor
- C. Methane
- D. Nitrogen Oxide





# What is the primary component of Compressed Natural Gas (CNG) used in vehicles?

A. Propane

B. Butane

C. Methane

D. Ethanol





**Clean  
Energy  
DeKalb**

***Plan Update***

# 2022 Annual Report on DeKalb's Fleet

- 14% Total GGE Reduced
- 7% Total GHG Reduced



Fuel	# of Vehicles	GGE	GHG
CNG	363	1,279,416 gal	1,250.3 tons
PROPANE	63	19,106 gal	28.8 tons
ELECTRIC	22	13,63 gal	12.1 tons



# Community and Fleet Charging

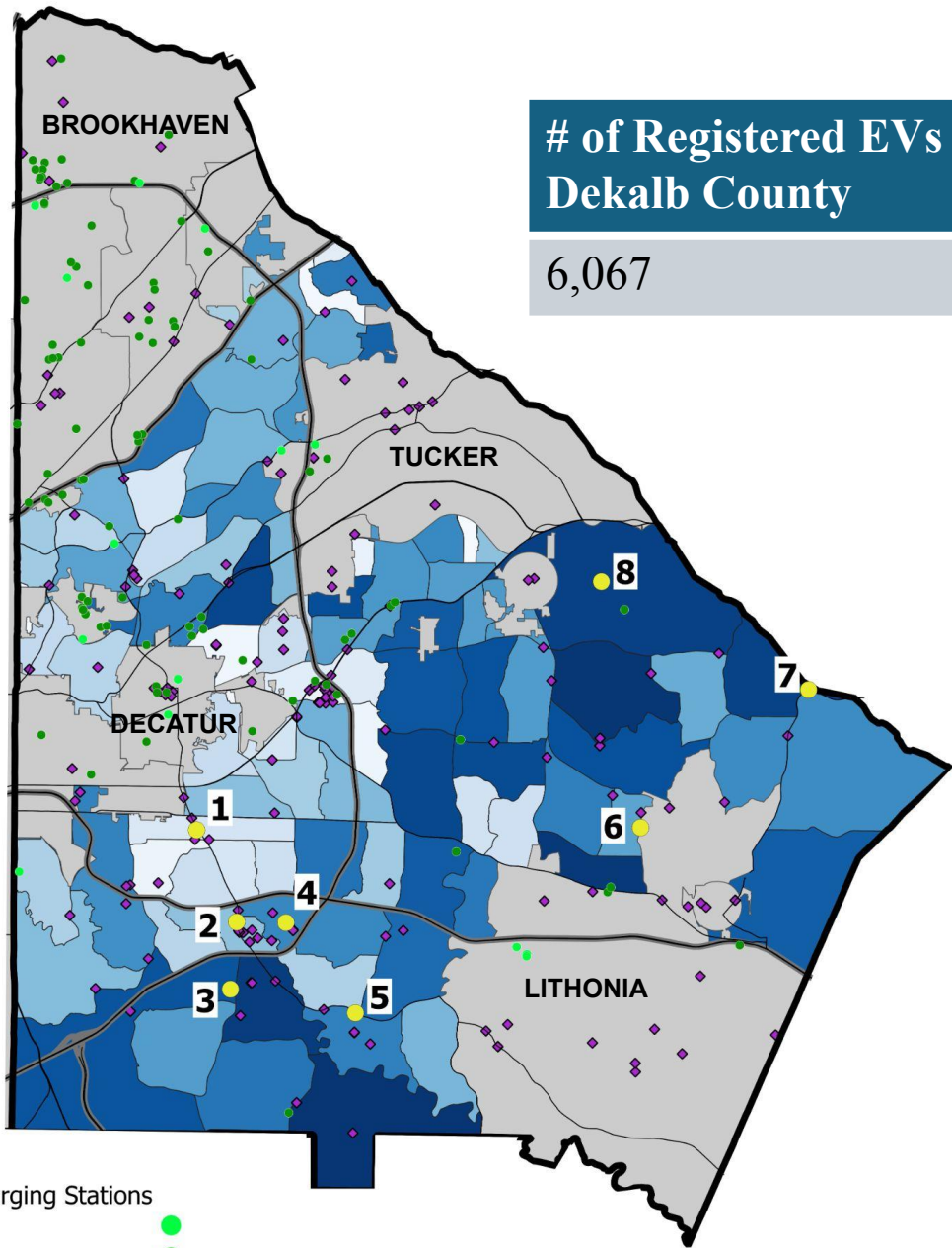
- Network existing fleet charging to make available for community members.
- Install charging stations in areas of the county with little to no charging options
- Recommended locations will serve energy burdened communities that lack any sort of charging infrastructure.
- Improve Dekalb Fleet's range for EVs and encourage reliability for more individual EV purchases.









# of Registered EVs in  
DeKalb County

6,067



# Proposed Locations

1. Scott Candler Library
2. South Dekalb Mall
3. Georgia Perimeter College
4. Exchange Recreational Center
5. Chapel Square Shopping Center
6. Redan Recreation Center
7. Stonebridge Shopping Center
8. Stone Mountain Park

Charging Stations  
DC   
L2   
DeKalb County Facilities   
Proposal Locations 

Sources:  
ERSI  
DeKalb County GIS  
Department  
US Environmental Protection  
Agency





# Questions

- Is there an area that should have the most attention with this proposal?
- Did we miss the mark? Was there an area that you think should get the most attention over what we suggested?
- While going through this process we attempted to target energy burdened neighborhoods. Do you think there were other areas that should have been considered?



**Clean Cities and  
Communities**

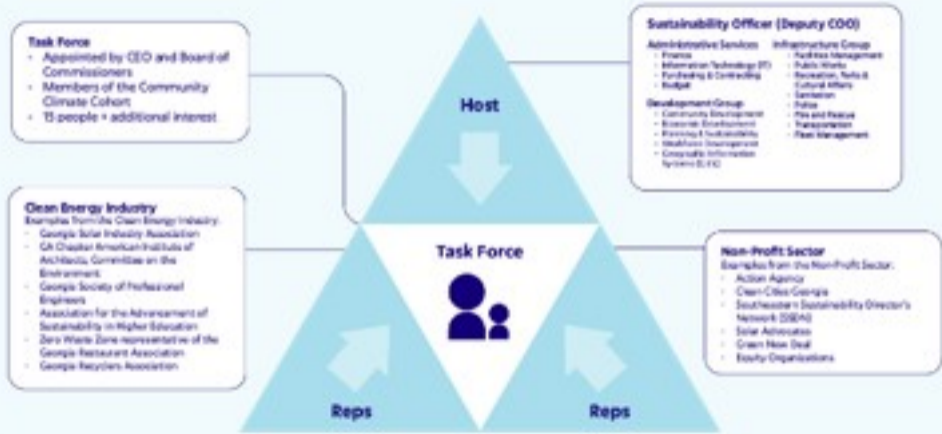


# Thank you!

Sumner Pomeroy, Program Manager  
sumner@cleancitiesgeorgia.org

For more information visit:  
[www.cleancitiesgeorgia.org](http://www.cleancitiesgeorgia.org)  
[www.driveelectricgeorgia.org](http://www.driveelectricgeorgia.org)







Clean  
Energy  
DeKalb

# DEKALB CLEAN ENERGY & TRANSPORTATION PLAN

**Steering Committee Meeting**

Task 8

Greenhouse Gas Inventory

October 4<sup>th</sup>, 2023





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# OVERVIEW

History of the Task  
What We've Done  
What We're Missing  
Where We're At  
Next Steps & Best Practices



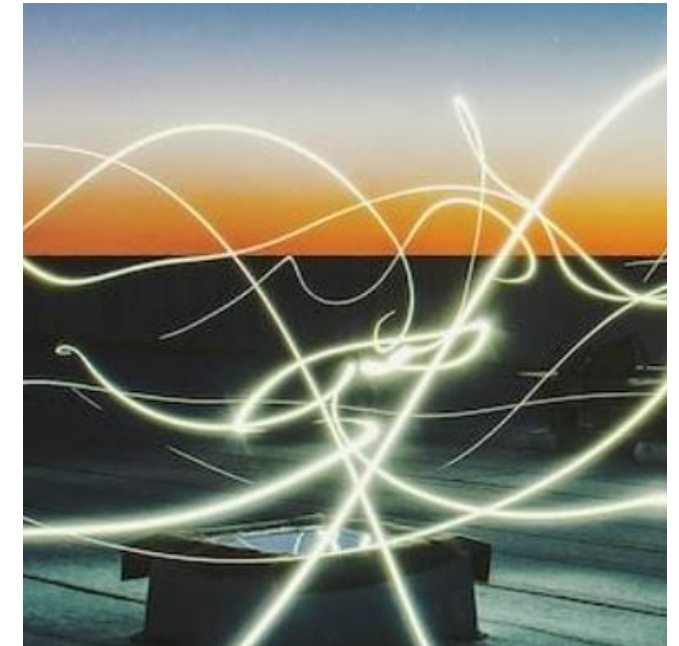
Clean  
Energy  
DeKalb

# History of the Task

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- The project team sought to build an inventory from the ground up, requiring:
  - Data (electricity purchases, natural gas, vehicle miles traveled, etc)
  - A tracking tool (ICLEI Clearpath)
  - Stakeholder buy-in/support (county offices, utilities, etc.)
- The inventory would be developed for both county and community emissions

\*ICLEI = International Council for Local Environmental Initiatives



# What We've Done

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## Meetings:

- 8/1 – Meeting with Southface (Zoom)
  - Stacey Isaac Berahzer, Alanna Kinnebrew, Robert Reed, Samantha Pettigrew, Olivia Wilson, Frank Morris, Walter Zalis, Sarah McMillan, Kirstin Janocha, Sumner Pomeroy
- 8/8 – Call with Atlanta Regional Commission (Phone)
  - Stacey Isaac Berahzer, Danny Johnson
- 8/15 - Meeting at Southface (In-Person)
  - Stacey Isaac Berahzer, Robert Reed, Samantha Pettigrew
- 8/17 - Meeting with Chattahoochee Riverkeeper (Zoom)
  - Stacey Isaac Berahzer, Chris Manganiello
- 8/18 – Internal meetings between ibE & Energetics (Zoom)
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Walter Zalis, Kirstin Janocha
- 8/22 – Meeting with Atlanta Regional Commission (Zoom)
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Walter Zalis, Kirstin Janocha, Crystal Jackson
- 8/31 – Meeting with GA Tech / Drawdown Georgia (Zoom)
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Walter Zalis, Kirstin Janocha, Bill Drummond

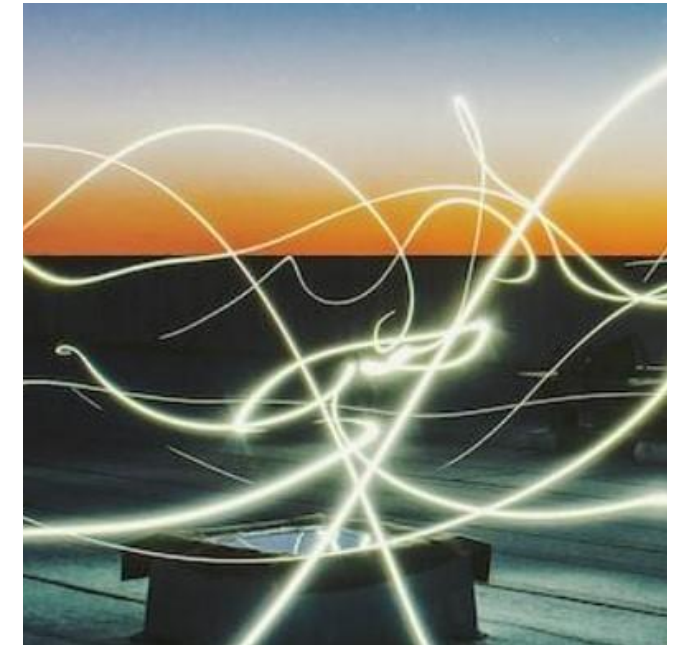


# What We've Done

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## Meetings:

- 9/11 – Meeting with Ray C Anderson Foundation (In-Person)
  - Stacey Isaac Berahzer, Maryanne Lanier
- 9/14 – Internal meetings between ibE & Energetics (Zoom)
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Walter Zalis, Kirstin Janocha
- 9/20 – Meeting with Dekalb County (Zoom)
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Brenda Doctor, Michael Rushin, Felton Williams, Walter Zalis
- 9/22 – Meeting with Ray C Anderson Foundation (Zoom)
  - Stacey Isaac Berahzer, John Lanier
- 9/25 - Internal Team Meeting
  - Stacey Isaac Berahzer, Samantha Pettigrew, Cameron Ages
- 10/3 - Internal Team Meeting
  - Stacey Isaac Berahzer, Amir Abdelnaby, Rita Moore, Walter Zalis



# What We've Done

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## Email Communications:

- Brenda Doctor (DeKalb County) – Georgia Power Bill data
- Robin McKnight (SCANA Energy) – SCANA & Walton Bill data
- Michael Rushin (DeKalb County) – DeKalb Summary Bill Data
- Sumner Pomeroy (Clean Cities Georgia) – Vehicle Miles Traveled data

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# What We've Done

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## Data Compiled:

- Some data on electricity usage
  - Across 124 files
  - Questions remain on aspects of electricity usage
  - Only applies to county operations
  - Only from GA Power
- Some data on natural gas usage
  - Summary data scanned into a PDF
  - Only applies to county operations
- County fleet for alternative fuel vehicles



# What We're Missing

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- Data from additional utilities (electricity use)
- County fleet information for ICE vehicles
- Community wide data (energy use, VMT, etc)
- Other data not yet requested (agriculture, waste management, industrial processes, land use for example)
- Potentially ClearPath/other software

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# Where We're At

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- A bottom-up approach can be very time consuming
- For the purposes of this project (focused on energy transition and impact), a top-down analysis utilizing EPA tools to determine community-wide emissions is recommended
- This process can be simplified based on what is in the Drawdown GA tracker (a review of data to build up the tracker has already been conducted)
- Estimates can be made of county emissions based on current Georgia Power electricity use; SCANA natural gas use; and county fleet emissions – this can be subtracted from the community estimate to determine the county/community split

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# Next Steps & Best Practices

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- Next Steps

- Continue analysis to determine county/community emissions with a top-down approach
- Provide any education needed on ClearPath

- Best Practices

- Utilize ClearPath with continuous updates
- Work with county and local stakeholders to understand data required for regular determination of area emissions
- Develop a capture system for gathering emissions and/or energy use data from utilities



# Georgia Power Draft Data 2022

DEKALB CLEAN ENERGY &  
TRANSPORTATION PLAN

Total Monthly Electricity Consumption per Sector (KWh)													
Sectors	Months												Total (KWh)
	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	
Administration	1,391,499	1,162,887	1,074,981	1,271,289	1,193,943	1,342,590	1,517,424	1,502,088	1,417,431	1,516,398	1,160,283	1,245,105	<b>15,795,918</b>
Airport	80,265	83,624	73,526	72,503	65,385	66,431	79,315	78,950	74,385	76,078	63,535	77,276	<b>891,273</b>
Facilities Management	1,462,908	1,495,332	1,317,223	NA	1,442,342	1,545,064	1,705,784	1,629,243	1,626,261	1,682,406	1,536,375	1,700,165	<b>17,143,103</b>
Fire Stations	774,123	NA	639,269	721,887	693,642	756,486	854,733	797,957	766,679	799,920	679,543	687,765	<b>8,172,004</b>
Parks	360,449	406,589	306,052	270,426	298,427	449,135	545,833	512,956	448,774	441,954	341,043	383,901	<b>4,765,539</b>
Police	365,391	360,547	311,485	310,791	296,821	387,438	412,028	416,159	405,403	369,059	281,689	313,342	<b>4,230,153</b>
Sanitation	195,239	220,075	200,517	180,595	178,374	194,908	197,999	215,146	210,702	218,958	167,822	201,459	<b>2,381,794</b>
Senior Centers	239,252	245,012	227,769	232,305	235,187	NA	282,011	308,659	283,943	277,510	230,929	232,423	<b>2,795,000</b>
Street Lights and Highway	1,847,490	1,784,270	1,595,081	1,712,843	1,683,815	2,005,347	2,056,713	1,994,899	1,913,050	1,936,505	2,100,038	1,828,924	<b>22,458,975</b>
Watershed	6,513,769	6,543,855	5,855,532	6,243,812	5,865,508	6,358,140	6,234,001	6,172,421	5,959,316	6,767,743	6,400,011	6,122,336	<b>75,036,444</b>
<b>Total (KWh)</b>	<b>13,230,385</b>	<b>12,302,191</b>	<b>11,601,435</b>	<b>11,016,451</b>	<b>11,953,444</b>	<b>13,105,539</b>	<b>13,885,841</b>	<b>13,628,478</b>	<b>13,105,944</b>	<b>14,086,531</b>	<b>12,961,268</b>	<b>12,792,696</b>	<b>153,670,203</b>



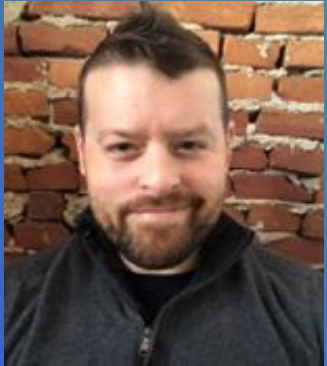
# Estimating emissions

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- The Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive source of data on the environmental characteristics of almost all electric power generated in the United States. Dekalb County is located in the eGRID subregion named “SERC South” (SRSO). + •
- The most recent eGRID data available is for calendar year 2021. According to eGRID, the 2021 annual CO<sub>2</sub> equivalent total output emission rate for SRSO is 896.440 lb/MWh. This is made up primarily of CO<sub>2</sub> (891.907 lb/MWh) as well as small amounts of N<sub>2</sub>O and CH<sub>4</sub>. For the electricity purchased, this equates to 153.670 MWh, and 68.878 tons of emissions.



# TEAM



Walter Zalis  
WZalis@energetics.com



Kirstin Janocha  
KAJanocha@energetics.com



Rita Moore  
ritam@ibenvironmental.com



Amir Abdelnaby  
amir-a@ibenvironmental.com



Stacey Isaac  
Berahzer  
stacey@ibenvironmental.com



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# THANK YOU

IB Environmental & Energetics





Dekalb County  
2022 Community Emissions by Sector



## Data Source and Methodology

- Data from Drawdown GA's [Greenhouse Gas Emissions Tracker](#)
- Statewide emissions were calculated from monthly data published by:
  - Department of Energy's Energy Information Administration
  - Department of Transportation
  - Environmental Protection Agency
- Local indicator variables were then used to calculate Dekalb County's share of statewide emissions, including:
  - [Population and housing characteristics](#) (Census Bureau's American Community Survey)
  - [Employment info](#) (Census Bureau's Quarterly Workforce Indicators)
  - [Vehicle miles traveled](#) (Dept. of Transportation)
  - [Forest coverage](#) (National Land Cover Database)
  - [Agriculture crop harvests and animal counts](#) (Dept. of Agriculture's Census of Agriculture)

Source: [Drawdown GA](#)





## Key Terms

### Greenhouse Gas (GHG) Emissions

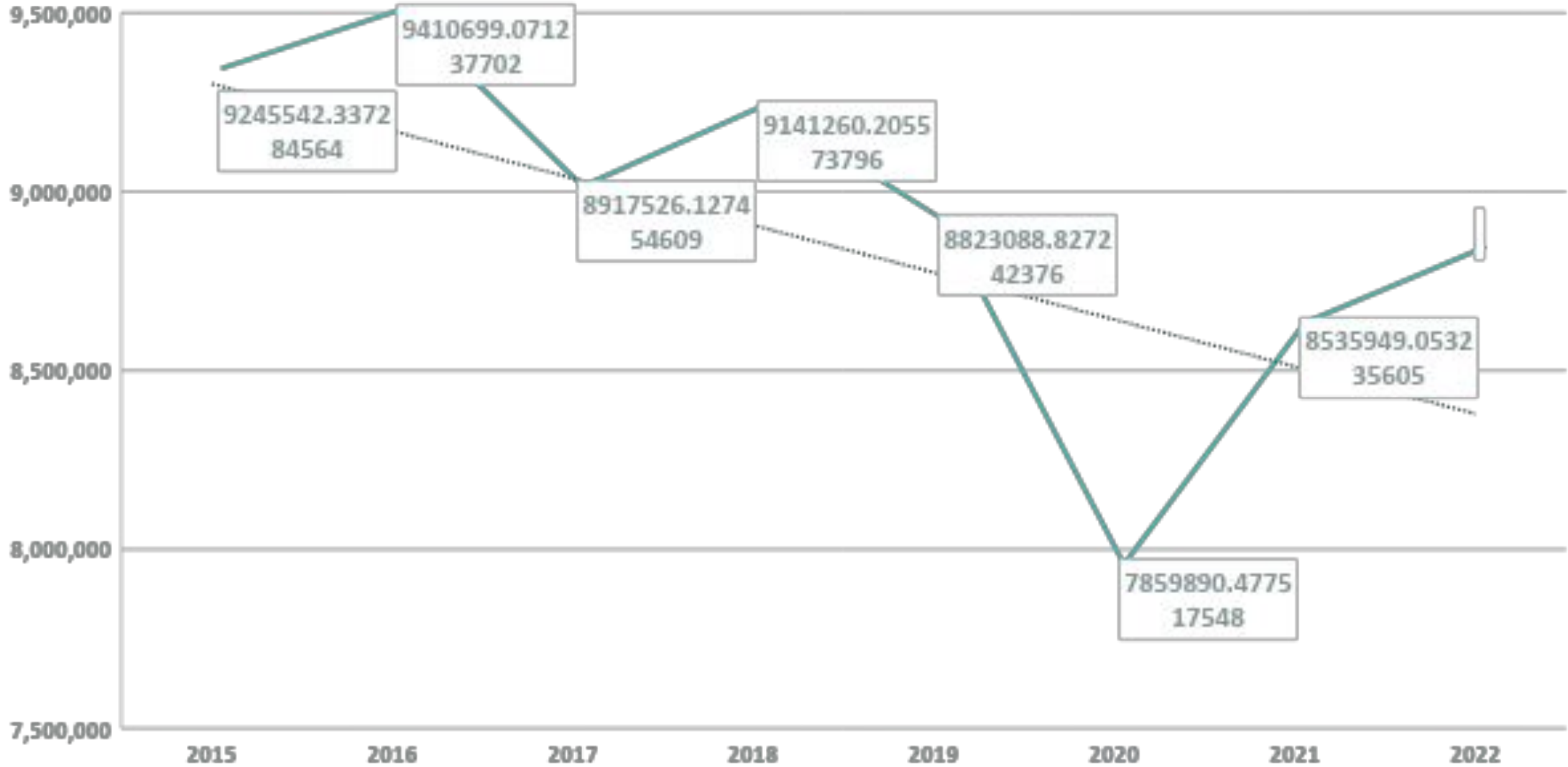
- The mix of gases that trap heat in the Earth's atmosphere, including carbon dioxide, methane, nitrous oxide and fluorinated gases. GHG emissions are represented as carbon dioxide equivalent, a standardized way to describe the global warming potential of any GHG. Emissions are converted into the amount of carbon dioxide that would have the same global warming impact.

### Metric Tons (MT)

- This is the unit of measurement for greenhouse gas emissions. One metric ton equals 2,205 pounds and is about half the weight of a full-sized pickup truck or mid-sized SUV.

# 2022 Dekalb Community Emissions in Context

Total Yearly CO2 Emissions (MT)

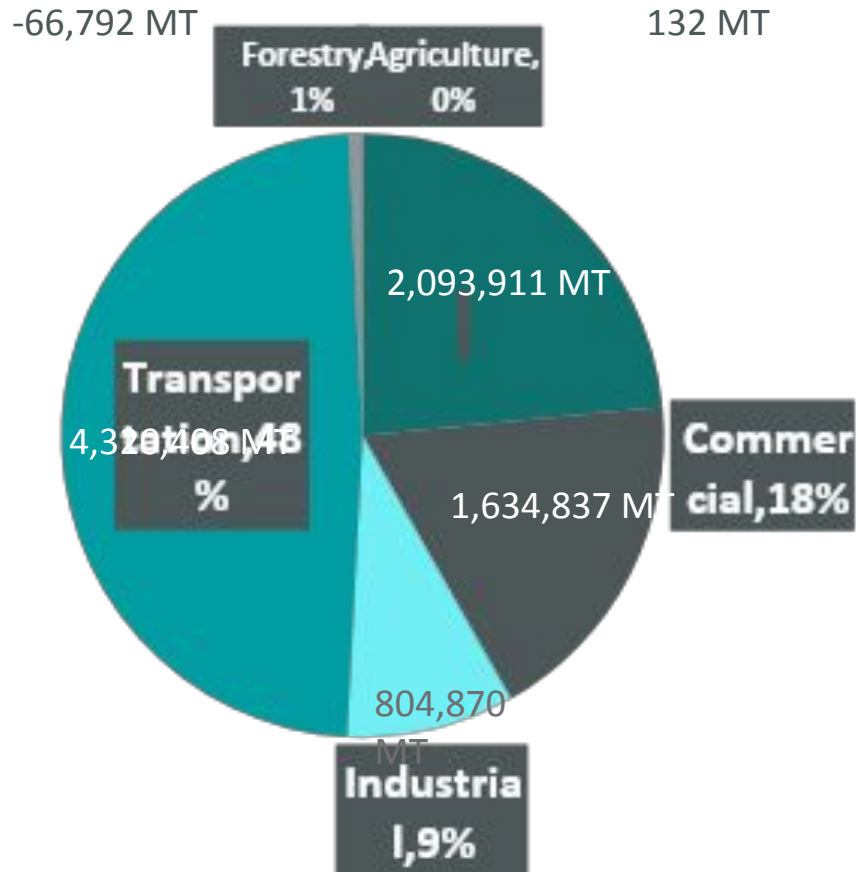


# County Operations Emissions (2022 electricity and fleet)

Source	KWh	MWh	scf	Gallon	Multiplier	Total GHG Emissions (MT)
GA Power	153,670,203	153,670			896.440 lb/MWh	62,474.43
Snapping Shoals	3015308	3,015			896.440 lb/MWh	1,225.87
Walton	745775	746			896.440 lb/MWh	303.19
CNG			1,464,655.75		0.05444 per scf	36.16
Diesel				747,506.06	10.21 per gallon	3,461.24
Unleaded Gas				1,588,752.12	8.78 per gallon	6,326.19
Propane				26,721.49	12.68 per gallon	153.66
<b>TOTAL</b>						<b>73,980.75</b>
<b>% of county transportation/electricity emissions</b>						<b>0.92%</b>



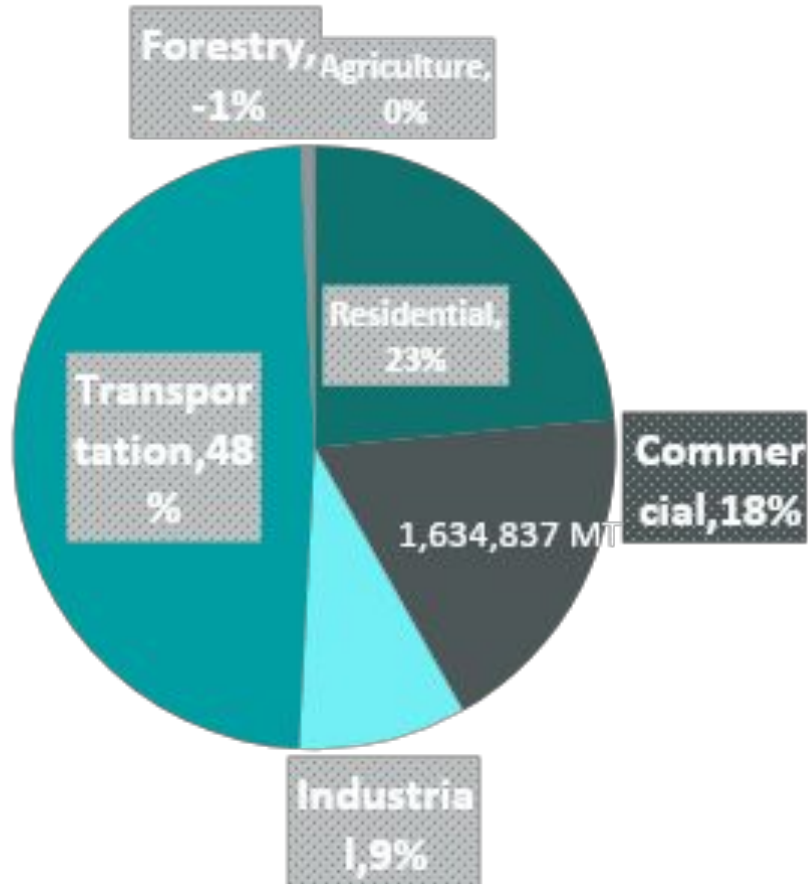
# Residential Sector Emissions







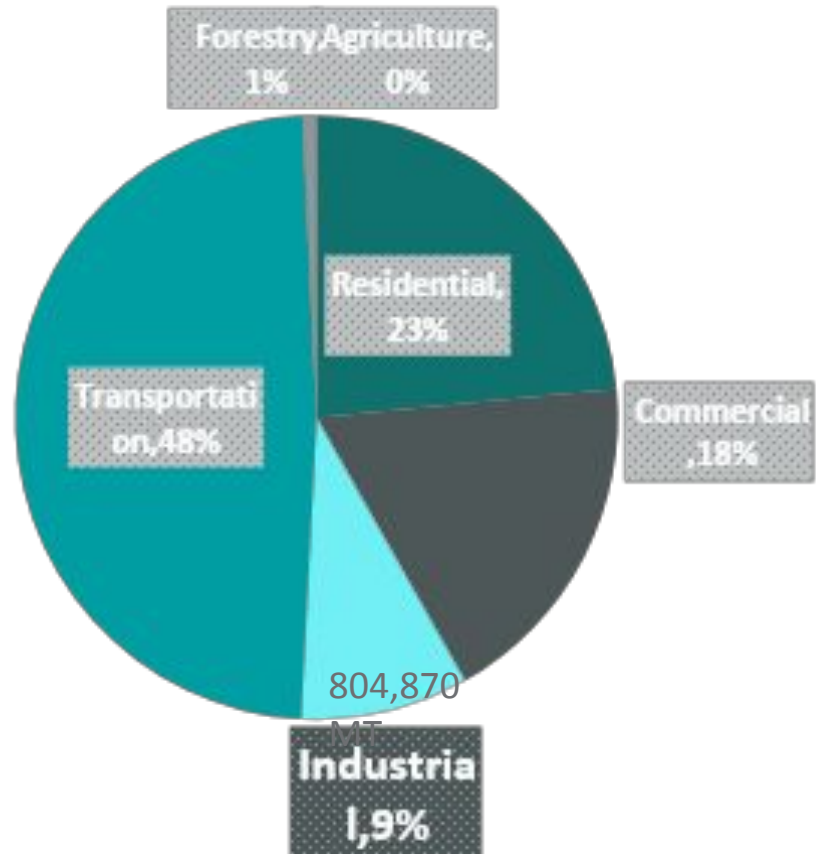
# Commercial Sector Emissions





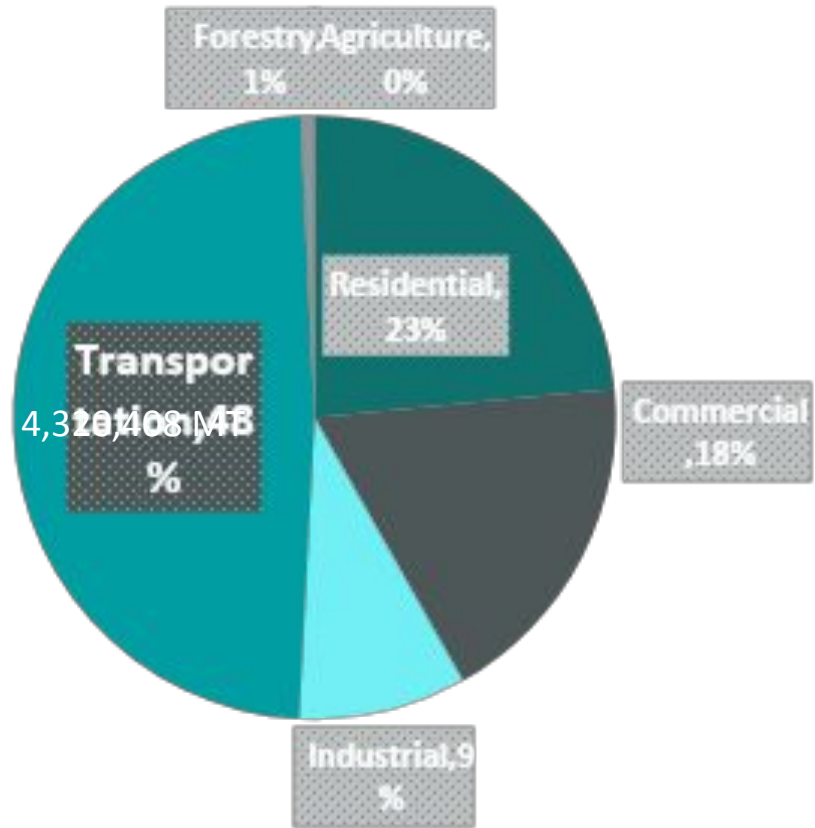


# Industrial Sector Emissions





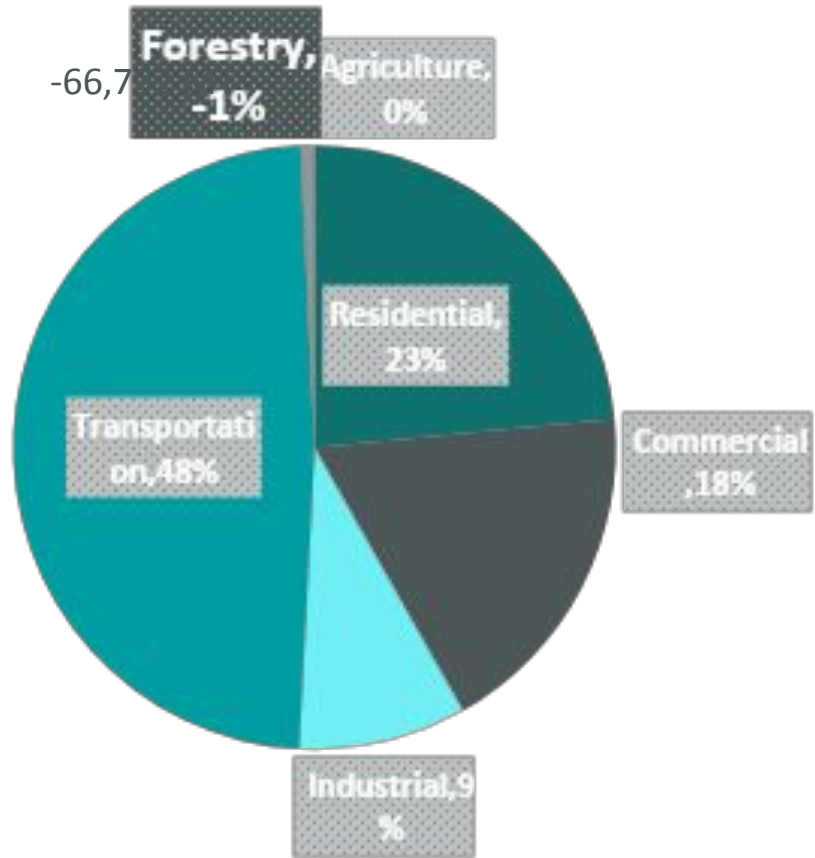
# Transportation Sector Emissions





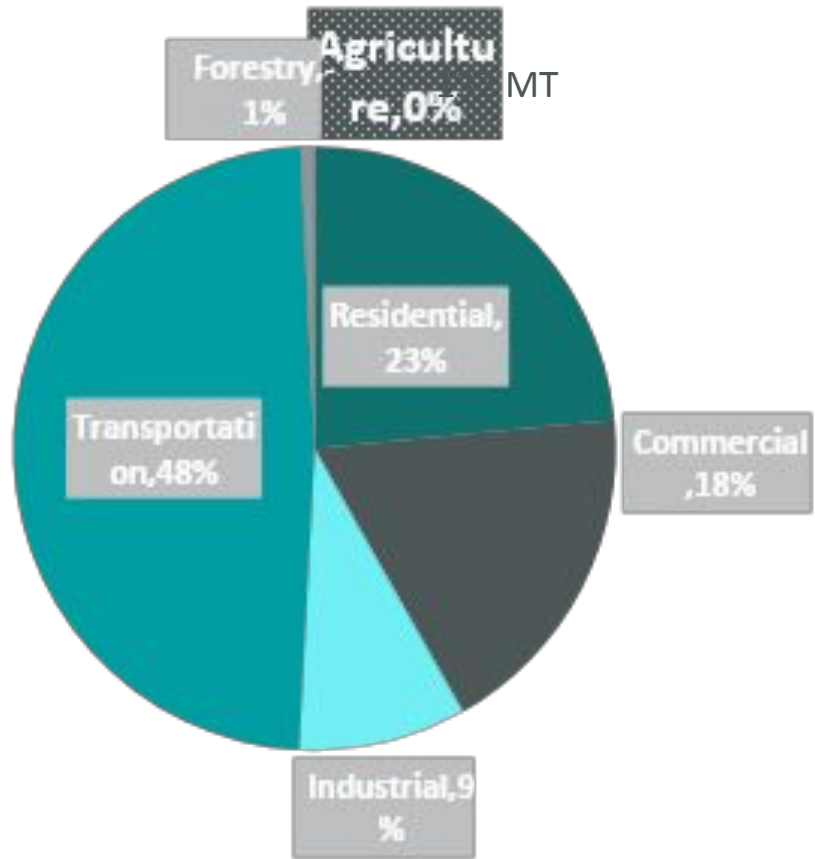


# Forestry Sector Emissions





# Agriculture Sector Emissions



The logo features a stylized white circular icon on the left, containing three curved, overlapping lines that suggest motion or energy. To the right of this icon, the word "energetics" is written in a clean, white, lowercase, sans-serif typeface.

energetics

Clean Energy Consulting



## Scenario A: Cost Optimization

### Scenario Goals

The objective of the Cost Optimization scenario is to optimize emissions mitigation, adaptation, and resilience measures while being conscious of the strain on the county budget. Essentially, this scenario estimates the best course of emissions-mitigating actions under the lowest-possible spending options, with additional optional actions included in the next spending tier.

Our analysis accounts for a combination of both cost and effectiveness. As our base list of measures, we included actions that represent the lowest-cost – yet most effective – emissions mitigation measures. Our team also included measures that offer some trade-offs in those criteria as second-tier options. Either they are slightly more costly (relatively), but highly effective, offering a higher return on investment, or they are quite inexpensive to implement, but offer little reward in terms of emissions mitigation or resilience.

Finally, the potential equity, community co-benefits, and/or community resilience impact is indicated for each action item throughout the Scenario. Figures 1, 2, and 3 have been chosen as a digestible and consistent way to represent the possible equity value in each action: Figure 1 indicates the low-impact, Figure 2 indicates medium-impact, and Figure 3 indicates high-impact action items in regard to community co-benefits and equity. This indication ought to be considered when prioritizing actions and strategies for implementation.



**Figure 2 [above]**  
represents action items  
with a potential for medium  
community co-benefits,  
resilience, and/or equity  
impact.

**Figure 3 [above]**  
represents action items  
with a potential for high  
community co-benefits,  
resilience, and/or equity  
impact.

## Actions

### Airports

Emissions from airports (in this case, the DeKalb- Peachtree Airport) fall into two categories – emissions from planes (specifically jet fuel), and emissions from building and airport operations. While emissions from jet fuel cannot be eliminated at this time (there is currently no readily available electric plane), they can be minimized. However, operations and building emissions can be brought as close to zero as possible. In the cost mitigation scenario, the focus is on accelerating airport building efficiency (with measures specific to airport buildings) and minimizing unnecessary emissions from aircraft. Larger, more impactful actions are taken later.



#### Action A.1:

#### Evaluate and Reduce Non-Essential Airport Fuel Use

The first step is a series of low-investment, low-disruption actions to reduce emissions from current fuel sources. These actions are considered “no regrets” because they carry low risk and little financial strain, carry some co-benefits, and/or help to gather data and plan for future energy use and emissions mitigation potential.

**Collecting and evaluating data** will help chart a detailed, intentional course for next steps. Data would include current and ongoing energy use, emissions, and operations data. By evaluating operations information (such as which gates are most frequently used, turnaround time for aircraft, etc.), valuable insight is gained into how airport and aircraft operations can be made more efficient to decrease emissions.

**Reducing non-essential aircraft/APU use** on tarmacs would lower emissions from aircraft engines. The use of pre-conditioned air units to keep aircraft cool would reduce the need to have the aircraft engines running while the plane sits on the tarmac or at the gates, reducing fuel consumption (which has cost savings co-benefits). If not already in use, it would also be beneficial to implement zero-emissions 400Hz ground power units.

Finally, **submetering for airport tenants** (if not already in place) would give the airport more data and accountability for energy consumption throughout the building.

**Action A.1 Implementation Considerations:**

- **Lead Agency:** DeKalb- Peachtree Airport
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Implementation is dependent on which measures are already in place.
- **Equity, Resilience, and Community Co-Benefits:** Extended co-benefits may include improved community health over the long-term as emissions-related air pollutants are reduced.



**Action A.2:  
Future Planning**

In future planning for PDK, it will be important to account for both future efficiency and sustainability measures as well as future resilience. While more comprehensive building efficiency measures are further discussed in our Buildings section, there are additional measures pertinent to the airport as outlined below.

**Incorporate climate resilience measures** into future airport development by creating policies that will ensure future airport construction accounts for anticipated climate change, including extreme temperatures, intense precipitation, and flooding hazards. This includes resilience to flooding (such as water runoff) and extreme temperatures (accelerated tarmac wear).

**Implement efficiency and sustainability standards** for future airport development. This may include LEED certification (or other sustainability standard certification), as was recommended in the Buildings section.

**Action A.2 Implementation Considerations:**

- **Lead Agency:** DeKalb- Peachtree Airport
- **Timeline:** 10-20 years
- **Cost:** Medium-High
- **Emissions Mitigation:** Medium
- **Implementation Barriers:** Sustainable building standards and resilience measures are extensive and often costly. Additionally, the certification process is lengthy.
- **Equity, Resilience, and Community Co-Benefits:** High temperatures impact ground service staff working on the tarmac; resilience measures should include adequate staffing and care measures for staff working in extreme heat.



### **Action A.3: Maximize Airport Emissions Reductions and Offsets**

Long-term investments for airport sustainability are largely centered around energy. Because much of the technology (such as sustainable aviation fuel) has a long way to come before being an effective and prolific option, it is recommended to withhold investment in this area until the technology is further developed and the county has time to fully prepare for an investment of this size.

**Large-scale solar development** on Airport grounds would create clean energy to service PDK's electric energy consumption, while the unused energy could be put back into the county's power grid.

**Converting Ground Service Equipment (GSE) to low- or zero-emission vehicles (ZEVs)** would reduce or eliminate emissions from GSE in use during airport operations. Coupled with solar electricity on site, this would render GSE fully net zero.

**Explore sustainable aviation fuel infrastructure for aircraft.** Sustainable aviation fuel, such as electrofuels (e-fuels), biofuels, and hydrogen are still being researched and developed. Where available, their use is still very limited. As this technology develops and becomes more widely available, it is worth exploring as an option for providing alternative fuel infrastructure at PDK.

#### **Action A.3 Implementation Considerations:**

- **Lead Agency:** DeKalb- Peachtree Airport
- **Timeline:** 20+ years
- **Cost:** High
- **Emissions Mitigation:** High
- **Implementation Barriers:** Technology development, affordability, and availability, especially with GSE and alternative fuel infrastructure.
- **Equity, Resilience, and Community Co-Benefits:** Additional electricity generated from solar power could be sold back to DeKalb County's power grid, boosting and diversifying grid resilience and, by extension, community resilience.

## **Buildings**

In the Low-Cost Scenario, actions are prioritized that have the potential to save money while reducing emissions with heavy emphasis on efficiency in the long term. The scenario achieves most progress towards emissions mitigation goals with deep penetration of clean energy supplies late in the scenario period, thus delaying major costs until 2050. The most important conceptual approach in the Low-Cost Scenario is ensuring that the County's investments in new facilities are designed from the outset to be compatible with the County's energy and emissions goals. This means that relatively small increases in the up-front cost of new buildings.

Buildings actions are designated to be led by the Facilities Department.



### Action B.1:

## Adopt Enhanced Energy Efficiency Requirements for New and Renovated County Buildings

Energy efficiency requirements can be achieved through a number of approaches, including green building certification (e.g., LEED/EnergyStar certification) or through the adoption of a more advanced version of the IECC (e.g., 2024 IECC) for County buildings.

#### Action B.1 Implementation Considerations:

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** 5 years (immediate); recurring revisions in energy efficiency requirements on a timeline that matches IECC updates (i.e., revise requirements every 3 – 5 years)
- **Cost:** Medium to High, accounting for all improvements
- **Implementation Barriers:** Green building certifications require external contractors for assessment and validation; technologies required in IECC codes may require technical workforce development in county.
- **Emissions Mitigation:** Achieve at least 20% reduction in energy demand for new County buildings (relative to comparable buildings) developed or renovated by the Facilities Dept. or other County agencies (i.e., 5% greater efficiency improvement than EPA EnergyStar)
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development (i.e., creation of local skilled workforce by stimulating demand for advanced building efficiency technologies) is expected to support advanced energy efficiency requirements in the private and community buildings sectors; improved efficiency requirements reduce peak energy demand requirements for county facilities and improve building resilience to power outages (e.g., improved insulation, daylighting).



### Action B.2:

## Full-Electrification of Future County Buildings

Ensure that future buildings are fully electrified in anticipation of decarbonized electricity supply. Because traditional fuels (including natural gas, propane, diesel, etc.) are very costly to decarbonize, the County's most economically efficient path to decarbonization is via electrification and switching to renewable energy resources. The most significant current uses of fossil fuels within County facilities are for space and water heating; electrification is anticipated to replace these uses with air-source heat pumps, including heat-pump water heaters. Additional uses of fossil fuels (including kitchen appliances, dryers, etc.) can be electrified with a large and growing number of alternative appliances.



**Action B.2 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** Initiation in 2025 (immediate) to be completed in < 5 years; recurring revisions in energy efficiency requirements on a timeline that matches IECC updates (i.e., revise requirements every 3 – 5 years)
- **Cost:** High
- **Implementation Barriers:** Largest implementation barriers associated with facilities that host large-scale industrial processes (e.g., landfill, WWTPs), in some cases electrification is not possible with commercially available technologies.
- **Emissions Mitigation:** This action achieves no direct emissions mitigation except for avoiding future potential fugitive emissions of methane (these avoided emissions are expected to be small)
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development through development of building electrification practices in local construction market. Cost savings from electrification can be redirected through County budget to better serve low-income or disadvantaged (LIDAC) communities.



**Action B.3:**

**Invest in ‘No-Regrets’ Efficiency Improvements in Existing County**

**Buildings**

Many opportunities exist to improve the energy efficiency of existing buildings and facilities by retrofitting demonstrated technologies with proven ROIs. A critical part of the lowest-cost approach to mitigating GHG emissions is to avoid unnecessary energy waste, and that means adopting and implementing as many efficiency measures as possible. Building efficiency improvements include a large number of individual actions across every type of building energy use, including:

- **Efficient lighting:** Replace incumbent lighting systems with energy efficient LEDs and installing timers or motion sensors in County buildings that do not already have them.
- **Efficient water heating:** Replace boilers and water heaters with high-efficiency models (including heat pump water heaters if the scale/duty cycle justifies the investment), and implement zone controls of hot water loops where applicable.
- **Efficient HVAC improvements:** Upgrade existing water chillers with high-efficiency models and/or retrofit with variable frequency drives; replace inefficient heat pumps with high-efficiency models; replace inefficiently-designed systems (including oversized units when upgrading building insulation) with HVAC systems designed from a whole-building perspective; use heating/cooling zone controls, sensors, and smart scheduling (in line with building energy management systems) to eliminate wasteful space conditioning; replace window units with mini-split or centralized HVAC systems; replace separate heating and

cooling systems with combined heat pump systems; install heat recovery fresh air exchangers where not currently used; explore advanced technologies including ground/water-source heat pumps, thermal load storage devices, and solar water heaters

- **Efficient envelope improvements:** Conduct assessments of existing county facilities (i.e., retro-commissioning) including door blower tests and thermal imaging for small buildings, and building energy modeling for larger buildings; mitigate identified leaks, gaps, and other envelope problems; upgrade or mitigate outdated windows with energy efficient options, window laminates, and/or automatic shades to reduce heat gain through windows
- **Building energy management systems (BEMS):** Deploy a connected, County-scale building energy management system that will allow smart decision-making with regards to building energy use, integration of sensors, advanced scheduling, and program-based operations that account for differences in weather, occupation, etc.

The selection and prioritization of efficiency improvements in County facilities will depend on the County facilities upgrade budget priorities. The prioritization of upgrades should include factors beyond efficiency and cost, including opportunities to leverage already-planned work and/or emergency repairs to incorporate efficiency improvements. Planning and scheduling efficiency improvements is a process that will need to be incorporated into the Facilities Department's budgeting process. The process can be tracked with performance metrics on the number and type of efficiency technologies implemented in each County facility.

**Action B.3 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** Initiation in 2025 (immediate) to be completed over the medium-term (5 – 20 years); it is expected that new efficiency technologies will become economical over the course of this action, thus regular updates to the supporting policy will be necessary; prioritize buildings by leveraging BEMS data to identify most wasteful facilities.
- **Cost:** Medium to Low, depending on current County building conditions
- **Implementation Barriers:** Largest implementation barriers associated with facilities that host large-scale industrial processes (e.g., landfill, WWTPs), in some cases electrification is not possible with commercially available technologies and carbon-free fuels may be considered.
- **Emissions Mitigation:** This action achieves no direct emissions mitigation except for avoiding future potential fugitive emissions of methane (these avoided emissions are expected to be small)
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development through development of building electrification practices in local construction market. Cost savings from electrification can be redirected through County budget to better serve low-income or disadvantaged (LIDAC) communities.



#### **Action B.4: Create Energy Manager Role and Track Energy Use**

The primary challenge preventing the County from accurately estimating its GHG emissions (and therefore associated emissions mitigation potential) is a lack of data on energy use across sectors, including insufficient differentiation on how electricity is used, and no data on fuel use for building energy (including natural gas, propane, kerosene, or other fuels). This action includes the establishment of an Energy Management Division and/or Senior Energy Manager role within the Department of Facilities. In addition to tracking energy use and retaining data, the energy manager role would lead implementation of efficiency improvements, identify sources of energy waste, and bring together the various County Government resources to address and mitigate those sources.

##### **Action B.4 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** 5 years (immediate)
- **Implementation Barriers:** Establishing the systems and processes for data collection across all County facilities is a labor-intensive process, but once complete labor costs should fall.
- **Cost:** Low to Medium
- **Implementation Barriers:** Establishing the systems and processes for data collection across all County facilities is a labor-intensive process, but once complete labor costs should fall.
- **Emissions Mitigation:** Medium – High (assuming no similar role currently exists)
- **Equity, Resilience, and Community Co-Benefits:** N/A

#### **Decarbonize with Renewable Energy**

While many steps can be taken to reduce County emissions in the low-cost scenario, complete decarbonization can only be achieved by replacing current supplies of electricity with 100% renewable-sourced electricity (alongside the complete electrification of County facilities). The most significant challenge for implementation of this action is determining when to implement it.



#### **Action B.5: Acquire 100% Renewable Electricity**

Purchase electricity from suppliers who produce energy with 100% carbon-free resources (including solar PV, wind, hydro, and nuclear power). Currently, Georgia Power (GP) offers at least two different ways to subscribe to renewable energy via price adders on the traditional tariff. Such arrangements are likely to be the most cost-effective means of decarbonizing Dekalb's grid over the long-term, barring changes in the relative costs of commercial-scale solar

deployments, supporting technologies (including interconnection, operating, and grid-scale storage costs), and financing.

**Action B.5 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** Long-term (20+ years); the choice of when to begin purchasing 100% renewable energy for County facilities is a policy decision that must balance cost against County mitigation goals; to achieve the lowest cost, the Facilities Dept. should seek to delay this shift as late as possible while still achieving its commitments; the switch to a renewable energy supply
- **Cost:** Medium to High
- **Implementation Barriers:** Risk of overshooting emissions mitigation goals; potential risk of higher-than-expected costs relative to developing own-generation
- **Emissions Mitigation:** The switch to 100% renewable energy is expected to mitigate all building emissions associated with electricity consumption in County facilities.
- **Equity, Resilience, and Community Co-Benefits:** Because utility-supplied renewable energy is supplied by the distribution grid, it has no resilience risk or benefit compared to traditional grid-supplied electricity; community and equity co-benefits may potentially be achieved through a small reduction in (non-GHG) air pollution associated with electricity production near DeKalb County.

## Fleets

The Low-Cost Scenario seeks to optimize fleet fuel efficiently as much as possible through management practices, while also carefully and intentionally transitioning to lower- and eventually zero-emissions vehicles when it makes financial sense to do so. DeKalb County Department of Public Works, Fleet Management Division maintains 3,500 vehicles for the various County departments – an investment in ZEVs for a fleet this size is a hefty one as it includes not only the vehicles themselves, but the infrastructure to charge them and the workforce training to maintain them. This scenario focuses on maximizing efficiency in the short term, reducing vehicle size and fleet use in the mid-term, and transitioning to ZEVs in the long term as it becomes more economical to do so.



### **Action F.1: Fleet Efficiency Optimization**

Optimizing fleet efficiency includes both vehicle efficiency and route optimization. While efficiency optimization is not a “clean fuel” or zero-emissions transition, it is a low-cost adjustment to ensure that emissions from fleet vehicles are kept to a minimum. This option is therefore considered a no-regrets action which can be undertaken almost immediately during a more involved transition to zero-emissions fleet vehicles.

**Route optimization** happens at an operational level within departments that use fleet vehicles, and involves minimizing doubling back, idling in traffic, and other forms of extra travel. This allows for fuel savings, as well as time savings and reduced vehicle stress.

**Maximizing vehicle efficiency** primarily entails conducting vehicle maintenance thoroughly and regularly to ensure vehicles are running smoothly. Current maintenance records from the DeKalb County Public Works Department Fleet Maintenance Division should be assessed for possible gaps, such as additional staffing or equipment needs.

Finally, **idling policies** would be aimed at reducing vehicle idling. This comes in three parts – a policy aimed at reducing idling vehicles, training to ensure vehicle users feel comfortable with the new guidelines, and monitoring to understand idling reduction. Additionally, it is possible to add auxiliary AC units in some heavily-used or larger fleet vehicles during warm months. This allows the driver to remain cool without idling the vehicle.

**Action F.1 Implementation Considerations:**

- **Lead Agency:** Public Works Department – Fleet Maintenance
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** None
- **Implementation Barriers:** Potential barriers include inter-departmental coordination on vehicle use and route optimization; development of, as well as training and communication on, updated vehicle and route guidelines; and monitoring capabilities.
- **Equity, Resilience, and Community Co-Benefits:** Improvements to air quality through reduced emissions from County fleets. Potential for reduced traffic congestion due to route optimization. Cost savings from fuel efficiency may be redirected through County budget to serve LIDAC communities.



**Action F.2:  
Fleet Size and Use Reduction**

In the medium-term, reducing vehicle size to primarily smaller vehicles with high fuel efficiency will provide fuel savings as well as reduced emissions from fleet vehicles. Depending on the current fleet, this action may have a lower impact, both in terms of cost and effectiveness.



**Action F.2 Implementation Considerations:**

- **Lead Agency:** Public Works Dept. Fleet Maintenance, Purchasing Dept.
- **Timeline:** 5-10 years
- **Cost:** Low-High (depending of size of current fleet vehicles)
- **Emissions Mitigation:** Low to Very Low
- **Implementation Barriers:** Identifying which vehicles can be reduced in size will require an operations inventory. Additionally, the process of identifying replacement vehicles and trading in/selling current vehicles may be time consuming.
- **Equity, Resilience, and Community Co-Benefits:** Improvements to air quality through reduced emissions from County fleets. Potential for reduced traffic congestion due to reduced fleet sizes.



**Action F.3:**

**Fleet Transition to Lower-Emissions and Zero-Emission Vehicles (ZEVs)**

As zero-emission vehicles (ZEVs) and charging infrastructure grow more accessible and affordable over time, it becomes a better return on investment. As such, in this scenario, our recommendation is to wait until the technology is more prolific and the cost generally lower before transitioning to a fully ZEV fleet. This also gives the County time to prepare for the cost associated with a full fleet transition and infrastructure development. Where appropriate, the selection of lower-emissions vehicles – including hybrid and plug-in hybrid vehicles – where commercially viable and competitive models are preferred.

**Action F.3 Implementation Considerations:**

- **Lead Agency:** Public Works Department Fleet Maintenance Division, as well as Purchasing Department
- **Timeline:** 10-20 years
- **Cost:** High
- **Emissions Mitigation:** Medium to High
- **Implementation Barriers:** Identifying which vehicles can be reduced in size will require an operations inventory. Additionally, the depreciation of current vehicles is a factor and should be factored into the decision of when to begin the fleet transition.
- **Equity, Resilience, and Community Co-Benefits:** Air quality improvements, as well as the potential to offer charging stations to the public to increase availability of EV charging infrastructure and offset costs from charging fees.

## Land Use



### **Action L.1: Integrate Carbon Mitigation into Unified Plan**

One of the County's most potent tools for mitigation of Community emissions is the County's control over how and where to site buildings, roads, infrastructure. By controlling factors like the density and design of buildings, the proximity of buildings to one another, and the infrastructure that connects them, the Unified Plan (including both the Comprehensive Transportation Plan and the Comprehensive Land Use Plan) has a significant effect on the future of both building and transportation emissions in the County.

In order to fully integrate carbon mitigation into the Comprehensive Plan, the Department of Planning and Sustainability should focus on the following principles:

- Multi-unit buildings are more efficient to heat and cool, leading to reduced energy-related emissions, as well as reduced peak demand and lower risk of power outages during extreme heat events.
- Neighborhoods with closer proximity between buildings, and especially with close commercial districts, reduce the number and length of private vehicle trips; fewer and shorter trips reduce fuel use, transportation emissions, and associated community impacts.
- Housing abundance reduces housing costs, and reduced reliance on private cars and trucks reduce household transportation costs; together these factors improve the resilience of the community to the future increases in the cost of energy and associated energy burden, especially in low-income communities.

These principles are already reflected in part in the 2050 Unified Plan, however in order to facilitate the County's transition to net-zero emissions at the lowest possible cost additional actions are recommended. This scenario recommends the following actions or revisions to the Unified Plan:

- Implement the Unified Plan's recommendations for sustainable zoning, but increase the emphasis and application of zoning and code requirements that reduces energy-related emissions from vehicle miles traveled (VMTs); deemphasize zoning that preserves or exacerbates VMTs.
- Explore all options to expand the application of zoning which allows energy efficient multi-family developments.
- Create compact, mixed-use developments which decrease reliance on single-passenger vehicles, per the Unified Plan's statements in principle that new developments should focus on existing activity centers, locations near transit stations, and high-capacity corridors.
- Implement the Unified Plan's small area plans (SAPs), but revise SAPs that fail to achieve significant transportation and land-use emissions mitigation; ensure SAPs have robust internal active transportation networks; SAPs designed around highway corridors without alternative access should be reimaged with active transportation backbones, crossings, and connections to surrounding communities; SAPs that rely excessively on

highway/arterial corridors should be deprioritized for new development over SAPs with potential to mitigate VMTs.

- Explore broad-based zoning density bonuses with different approaches in different zones; e.g., auxiliary dwelling units (ADUs) in single-family household neighborhoods, higher-intensity zoning can be similarly upzoned (either in terms of units per parcel, FAR/height limits, etc.).
- Use zoning bonuses to encourage low-emissions practices, including high density development in transit-connected activity centers.

**Action L.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (next Unified Plan update)
- **Cost:** Low to Medium (cost of analysis and development only)
- **Emissions Mitigation:** High (primarily community emissions)
- **Implementation Barriers:** Primarily political
- **Equity, Resilience, and Community Co-Benefits:** Increasing zoning density, increasing the housing stock, and reducing the County's reliance on private vehicles for transportation will have significant co-benefits for communities, primarily associated with reduced household expenditures on housing, energy, and transportation; additional resilience co-benefits are associated with lower anticipated peak electricity demand, reduced air pollution, reduced noise, and improved street safety.



**Action L.2:  
Restriction on HOA Covenants that Impede Emissions Mitigation**

In some jurisdictions, homeowners associations (HOAs) have included contractual language precluding the use of onsite renewable DERs such as rooftop solar panels or other important infrastructure such as outdoor EV charging systems. The County should proactively restrict such covenants to further promote solar use and other emissions-mitigating efforts by homeowners.

**Action L.2 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Low (policy changes only)
- **Emissions Mitigation:** Medium, community emissions only
- **Implementation Barriers:** Resistance from HOAs and community members; zoning restrictions and legislative support.
- **Equity, Resilience, and Community Co-Benefits:** Increased deployment of residential and commercial DERs across the County facilitates the transition to zero-carbon energy as well as improving the resilience of the local electricity grid; additionally reduced air pollution.

## Municipal Solid Waste



**MSW.1:**

**Promote Waste Reduction in County Departments and Targeted**

**Sectors**

The Sanitation Division can promote several practices across both County operations and the Community that can help reduce emissions from the County landfills, sanitation operations, and public works projects. Both community members and commercial customers of the Sanitation Division's collection and carting services may be reached through public-information campaigns to promote waste reduction, reuse, and recycling. Potential waste-reduction campaigns could include:

- Fliers, websites, and social media outreach can promote the County's recycling program, including advertising the program's contributions to County emissions mitigation goals.
- Partnerships for waste diversion can include promotion of local appliance repair companies, scrap metal recyclers, and electronics recyclers.
- Promotion of composting at the residential or institutional scale can reduce the organic waste contributions to landfill emissions by encouraging families, schools, hospitals, or other major producers of organic wastes to use compost onsite.
- Advertising of groups or mailing lists for donations of unwanted household items (e.g., 'Freecycle,' 'Buy Nothing,' etc.) and/or second-hand stores that accept donations.
- Establishment of a Sanitation Division-backed program for donations of large volumes of useful materials that would otherwise be disposed of (e.g., NYC's DonateNYC program for facilitating donations to qualified nonprofits).

**Action MSW.1 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Low; information campaign only
- **Emissions Mitigation:** Low to Medium
- **Implementation Barriers:** Working with County departments to establish SOPs for waste reduction.
- **Equity, Resilience, and Community Co-Benefits:** Waste reduction and donation-based programs can benefit low-income and vulnerable communities by minimizing expenditures on durable goods. Engagement in a circular economy bolsters community resilience and builds networks for mutual aid beyond government facilitation.





**Action MSW.2:  
Maximize Recycling of Concrete and Asphalt Aggregates in Public Works  
Projects**

DeKalb County has taken important statutory steps to allow the use of recycled concrete aggregates in road construction (eliminating the need for emissions-intensive virgin materials), and the Roads and Drainage Division should seek to utilize recycled concrete aggregates for road foundations wherever feasible. Similarly, recycled asphalt products are available within the metro Atlanta region and should be used whenever feasible to reduce lifecycle emissions associated with road paving.

**Action MSW.2 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 10 years
- **Cost:** Low to Medium, recycled materials are not expected to cost significantly more than virgin materials and may be available at a lower cost.
- **Emissions Mitigation:** Low to Medium
- **Implementation Barriers:** Recycled aggregates must be clean of impurities.
- **Equity, Resilience, and Community Co-Benefits:** Reduction in lifecycle emissions associated with road paving may contribute to overall improvements in local air quality.



**Action MSW.3:  
Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW  
Operations**

Because anaerobic decomposition of organic wastes in MSW streams is a major source of methane emissions (a GHG 25x more potent than CO<sub>2</sub>), the County should review its MSW collection, carting, and landfilling operations to ensure that fugitive methane emissions are avoided wherever possible. While significant actions have already been taken to control LFG emissions (e.g., LFG collection and waste-to-energy facility at the Seminole Rd. landfill), the Sanitation Division should establish a program of recurring top-to-bottom reviews (e.g., aligned with Comprehensive Plan cycles) to monitor, track, verify, and mitigate potential LFG leaks at all stages of the Sanitation Division's work.

A review could consist of a systematic identification of opportunities for LFG leakage (e.g., during carting, at various stages of landfilling, and from LFG collection, cleaning, pressurization, and distribution pipelines), followed by targeted monitoring using both portable and fixed optical gas imaging (OGI) and electromechanical/spectrometry sensors. Opportunities to shorten the residence time of organic waste in waste collection trucks and in other anaerobic holding piles may be available. Potential leaks in LFG collection and transportation, as well as LFG

processing operations should also be addressed. The purpose of each review will be to identify and mitigate any existing leaks, as well as provide an opportunity to strategize how to further reduce methane leaks.

A more intensive approach to this action could include the initiation of an internal Leak Detection and Repair (LDAR) program within the Sanitation Division, aligned with an annual LDAR report. Best practices for LDAR programs are published by the U.S. Environmental Protection Agency.

**Action MSW.3 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low to Medium, depending on extent of fugitive emissions.
- **Implementation Barriers:** Labor and workforce development; potential technical support may be available from U.S. EPA or Georgia EPD.
- **Equity, Resilience, and Community Co-Benefits:** Methane leaks are primarily a climate hazard with few immediate impacts on communities, however LFG leaks may also include volatile gases with potential nuisance or health impacts on communities; mitigating LFG leaks will benefit communities near major LFG sources (predominantly the Seminole Rd. Landfill).

## Parks & Agriculture

Parks are inherently a low- or zero-emissions sector. Most emissions from the parks sector come from park buildings or fleets, which are already covered in their respective sections. Rather than "decarbonizing" the remaining components of the parks sector, we aim to maximize the emissions mitigation potential of green spaces by expanding them, improving their care and maintenance, and ensuring their sustainability and resilience.



### **Action P.1: Improve Park Resilience and Mitigation Potential**

Flora is an excellent natural carbon sequester. Trees are especially important to natural carbon sequestration, given their size and longevity. However, the ecosystems in parks and open spaces will be especially vulnerable to extreme temperatures and weather in the coming years. When planted environments die, they release carbon back into the atmosphere as they decompose, negating any of their mitigation potential. Park resilience is therefore highly important, as well as a low-cost, low-regret investment.

By first **conducting a vulnerability assessment** of parks and green spaces, the Parks Department and County staff can strategically determine potential weak areas, then develop a more specified plan and timeline for remediation.

**Enhancing flood protection and drainage** will ensure that the flora and root systems in parks and open spaces do not face extensive erosion damage from heavy rains. Additionally, exploring the use of rainwater harvesting will minimize water consumption while diverting rainwater from drainage systems to collection.

Finally, **using resilient native species** will ensure that parks are more resilient to harsh conditions, including invasive species such as bugs (which will thrive in warmer, more humid conditions). Public information campaigns about sustainable landscaping can expand this effort to residential homes with little effort or investment of County resources.

**Action P.1 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Coordinating department operations may present challenges.
- **Equity, Resilience, and Community Co-Benefits:** The protection and longevity of parks and green spaces will provide significant community co-benefits, enumerated in **Action P.2** below. Improved access to and resilience of green spaces can improve mental and physical health of surrounding communities.



**Action P.2:  
Expand Green Spaces in DeKalb County**

**Creating an expansion plan for green spaces and urban tree canopy** will be one of the most important tools in combatting the Urban Heat Island effect (UHI). The selection of spaces which should be expanded or created will be contingent upon prioritization of Parks Department resources. Prioritization of Parks Department resources ought to include comprehensive community engagement and analysis of key variables, such as equitable access to parks, targeted canopy coverage, the health impact of urban density and the built environment, and several other possible factors of community vulnerability. The investment will be mid- to long-term, but very worthwhile for both mitigation and adaptation benefits.

**Action P.2 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 10-20 years
- **Cost:** Medium
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Identifying where to expand parks may be a lengthy process.
- **Equity, Resilience, and Community Co-Benefits:** Urban areas with more tree coverage generally see lower temperatures during peak heat indices than areas without adequate canopy coverage. Additionally, parks and green spaces have extensively been shown to have high mental and physical health benefits for all populations. Additionally, low-income communities in densely populated urban areas have generally been shown to have far less access to green spaces (as well as be more impacted by UHIs); expansion of green spaces to these communities should be prioritized to improve health equity.

## Streets

The County's direct control over much of the physical environment in DeKalb County is best expressed in the rights of way (ROW) the County owns for residential and urban streets and the roads and highways that connect activity centers. While the County does not directly control the choices that individuals make for personal transportation, the County does have significant influence over the infrastructure that influences individual decisions. While transitioning to ZEVs is an important part of mitigating transportation sector emissions, an equally essential component is helping residents transition away from private on-road vehicles (including cars and trucks) for short trips, especially within the County. By providing useful, convenient, direct, predictable, and safe off-road infrastructure for the growing variety of personal mobility options – including walking and running, bicycling and scooters, and electric micromobility devices – the County can make major strides towards accomplishing this goal and significantly ease the transition for its residents. Taking these actions early can enable lower household costs for car payments and fuel, and reduced congestion, air pollution, noise, and other harms associated with cars and trucks.

Another important role the County plays in exercising its control over street ROWs is providing space for the development and protection of tree canopy. The County has substantial canopy coverage, but development, poor planting practices, and climate change are ever-present threats to this important green infrastructure.



**Action S.1:  
Adopt a Complete Streets Policy**

The County Comprehensive Plan recommends the adoption of a Complete Streets Policy, and this recommendation is reiterated here. By implementing the recommended Complete Streets policy, the County will make progress towards enabling County residents to safely and conveniently move among and around the County's major activity centers without the need for a personal vehicle. The policy would revise the Code of Ordinances to include improved design guidance/requirements and encourage local, regional, and state agencies to incorporate the policy into any road projects they lead in the County. Critically, the proposed Complete Streets Policy in the Comprehensive Plan identifies exceptions for the inclusion of protected active transportation lanes on County roads, and these exceptions include broad language about "probable need/probable use," especially relative to cost.

It is essential that the County implements this Policy in such a way as to encourage a much greater share of non-motor vehicle transportation; thus evaluation of "need" and "probable use" should not be backward-looking, but forward-looking measures based on a coherent vision for Complete Streets. The risk of using backward-looking metrics (e.g., historical use data) is that only a fragmented patchwork of active transportation infrastructure will be completed, depriving the County's residents of a true alternative network for non-motor vehicles.

**Action S.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, with significant support from the Department of Public Works
- **Timeline:** 5 years
- **Cost:** Medium
- **Cost:** Medium; planning efforts must address a wide variety of road types
- **Emissions Mitigation:** High; limited primarily to community emissions
- **Implementation Barriers:** Engineering, jurisdictional boundaries, possible scattered community opposition
- **Equity, Resilience, and Community Co-Benefits:** Very high community benefits, significant new recreational asset, improved quality of living, reduced transportation costs, reduced air pollution, congestion, etc.



**Action S.2:  
Incentives for Non-Road Commuters**

Implement an incentive program for County employees who commute using alternative transportation methods instead of driving. The program could offer various incentives, such as subsidized public transportation passes, bike-sharing memberships, or rewards for carpooling. Federal law also allows for pre-tax commuter benefits, including up to \$315/month for qualified alternative transportation methods (including vanpooling, public transit, and even bicycling). To promote carpooling, designated or subsidized parking spaces closer to the workplace entrance could be reserved for employees who choose to share rides. Secure storage facilities (appropriate for a breadth of micromobility solutions from bicycles to scooters, ebikes, and



unicycles) can help prevent theft, which is a common problem for micromobility users. The County could organize periodic challenges or competitions to encourage employees to embrace alternative commuting options, with prizes ranging from gift cards to extra paid time off. By fostering a culture that values and rewards sustainable transportation choices, the County not only contributes to environmental conservation efforts but also promotes employee well-being and community engagement.

**Action S.2 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (immediate)
- **Cost:** Medium
- **Emissions Mitigation:** Very Low to Low; while Scope 3 emissions are not necessarily part of the County's goals, the cost to the County for these incentives would be very low relative to the mitigation impacts \*and\* benefits to employees.
- **Implementation Barriers:** Possible contracting issues
- **Equity, Resilience, and Community Co-Benefits:** Enables County employees to have greater choices in commuting options, including lower-cost options for low-income employees.



**Action S.3:**

**Provide Incentives for EV Charging Station on Private Developments**

Through partnerships with developers, large commercial and residential landlords, and with institutional campuses, the county can significantly accelerate the growth of EV-enabling infrastructure. Partnerships could include incentives such as cost-sharing, tax incentives, zoning bonuses, or streamlined permitting processes to encourage developers to integrate charging stations into new commercial and residential developments. This approach not only spreads the financial burden but also taps into the expertise and resources of private developers, ensuring that charging stations are strategically located and readily accessible to EV owners across the County, and that residents and users of these buildings are made aware of the availability of charging infrastructure. This approach also fosters a symbiotic relationship wherein developers enhance the attractiveness of their properties while contributing to the county's sustainability goals and the wider transition towards electric mobility.

**Action S.3 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (immediate)
- **Cost:** Medium
- **Emissions Mitigation:** Low; County emissions are unlikely to be significantly affected by the improved availability of EV charging infrastructure. Community emissions impacts may be higher (i.e., by enabling greater EV penetration, depending on the extent of incentives/scope of deployment).
- **Implementation Barriers:** Potential legal questions/complications depending on type of incentives to be employed; contract enforcement obligations.
- **Equity, Resilience, and Community Co-Benefits:** Significant community co-benefits if accelerated EV charger deployment is achieved; reduced costs/improved convenience for EV owners, reduced barriers to EV ownership.

## Waste & Water



**Action W.1:**

**Implement the Water and Wastewater Master Plan and Supporting Improvement Plan**

Implementation of the Dekalb County Water/Wastewater Master Plan will address numerous constraints on both water supply and wastewater removal that threaten to impair the system's efficiency and sustainability over the long term.

**Action W.1 Implementation Considerations:**

- **Lead Agency:** Watershed management
- **Timeline:** 10 years
- **Cost:** High
- **Emissions Mitigation:** N/A, not an emissions mitigation measure
- **Implementation Barriers:** Working across County departments to update SOPs
- **Equity, Resilience, and Community Co-Benefits:** Improved resilience is key benefit, ensuring the system can maintain water supply through the planning period and conducting gaps analyses to determine which communities are/ought to be most drastically impacted by the Plan.



**Action W.2:**

## **Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)**

Conduct energy audit at Snapfinger and Pole Bridge AWWTPs (to be conducted in collaboration with the Facilities Department executing **Action B.3**). Review processes, systems, and equipment for energy waste and efficiency gaps, identify outdated equipment (and replacement options), and evaluate plant processes to identify potential alternatives with energy (and emissions) savings potential. Establish process for recurring review every five years.

Historically, Pole Bridge AWWTP has used significantly more energy than Snapfinger or other WWTPs on a per-gallon basis of treated water; the district should identify if this is still the case, evaluate opportunities to improve energy efficiency, and prioritize capital improvements necessary to achieve these improvements.

### **Action W.2 Implementation Considerations:**

- **Lead Agency:** Watershed management with support from Facilities Department
- **Timeline:** 5 – 10 years
- **Cost:** Medium, depending on scope of necessary upgrades
- **Emissions Mitigation:** Medium, the County's water system is a major source of emissions.
- **Implementation Barriers:** Engineering
- **Equity, Resilience, and Community Co-Benefits:** Cost savings from energy efficient systems can be redirected to improve wastewater and sanitation services to LIDAC communities.



### **Action W.3: Promote Water Use Efficiency**

Conduct an information campaign to inform customers of the connection between water use and energy waste/GHG emissions to promote best practices and technologies for water use efficiency. Solutions for residential customers may include checking appliances and repairing leaks, installing low-flow shower heads or flow restrictors, only using appliances such as washing machines for full loads, replacing water-hungry lawns with drought-tolerant plants, and using mulch and other water-conservation gardening practices. Commercial customers may benefit from targeted water audits to identify and mitigate major water waste sinks.

**Action W.3 Implementation Considerations:**

- **Lead Agency:** Watershed Management
- **Timeline:** 5 years
- **Cost:** Low
- **Cost:** Low, information campaign only
- **Emissions Mitigation:** Low, reduced water consumption will have a small impact on energy use across the water system
- **Implementation Barriers:** Communication and cross-departmental coordination to get buy-in from County, community members. Measuring information campaign effectiveness also poses challenges.
- **Equity, Resilience, and Community Co-Benefits:** Cost savings that will especially benefit low-income households; improved water conservation offers additional resilience to water scarcity.

## Timeline

### Present – 2030

- B.1 Adopt Enhanced Energy Efficiency Requirements for New and Renovated County Buildings
- B.2: Full-Electrification of Future County Buildings
- B.3: Begin Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings
- B.4: Create Energy Manager Role and Track Energy Use
  
- F.1: Fleet Efficiency Optimization
- F.2: Begin Fleet Size and Use Reduction
  
- S.1: Adopt a Complete Streets Policy
- S.2: Provide Incentives for Non-Road Commuters
- S.3: Provide Incentives for EV Charging Station on Private Developments
  
- A.1: Evaluate and reduce non-essential airport fuel use.
  
- WW.3: Promote Water Use Efficiency
  
- P.1 Improve Park Resilience and Mitigation Potential
  
- W.1: Promote Waste Reduction in County Departments and Targeted Community Sectors
- W.3: Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations
  
- PH.1 Public Health Climate Risk Communication & Outreach
- PH.2 Public Health Risk Monitoring
- PH.3 Public Health Hazard Planning & Prevention

- L.1: Integrate Carbon Mitigation into Unified Plan
- L.2: Restriction on HOA Covenants that Impede Emissions Mitigation

## 2030-2040

- B.3: Complete Investment in 'No-Regrets' Efficiency Improvements in Existing County Buildings
- F.2: Complete Fleet Size and Use Reduction
- A.2: Implement Future Planning Considerations for Airport
- WW.1: Implement the Water and Wastewater Master Plan and supporting Capital Improvement Plan
- WW.2: Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)
- P.2 Expand Green Spaces in DeKalb County
- W.2: Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects
- PH.1 Continue to Re-Evaluate Public Health Risk Communication & Outreach Strategies

## 2040-2050

- B.5: Acquire 100% Renewable Electricity
- F.3: Complete Fleet Transition to Lower-Emissions and Zero-Emission Vehicles (ZEVs)
- PH.1 Continue to Re-Evaluate Public Health Risk Communication & Outreach Strategies



## Scenario B: Emissions Mitigation

### Scenario Goals

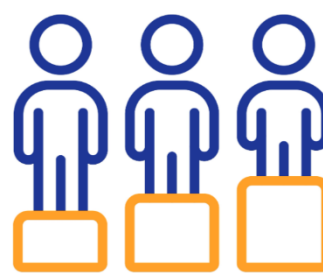
The objective of the Emissions Mitigation scenario is to optimize emissions mitigation, adaptation, and resilience measures with deep investments in decarbonizing all sectors of DeKalb County, as well as advancing reductions in community emissions with no delay. This includes early investment in, and adoption of, renewable energy technologies, efficiency measures, zero-emissions vehicles, and investments in sustainable infrastructure to enable transformative reductions in community emissions. In this scenario measures which focus on resilience, equity, and other auxiliary measures would come in a later timeframe.

Scenario B includes ‘no regrets’ actions, such as building efficiency measures that are expected to save the County money, as well as forward-looking planning and infrastructure to address community emissions from transportation, land use, and buildings emissions. This scenario has the highest mitigation potential at the most rapid rate of any other scenario; however, actions may not prioritize cost, equity, or community benefits the way others do. While this scenario does not consider cost as a major implementation barrier, all actions are considered ‘reasonable’ within the capacity of the County government to finance. It also includes many “low impact” mitigation options that taken together may achieve additional substantial emissions cuts.

Finally, the potential equity, community co-benefits, and/or community resilience impact is indicated for each action item throughout the scenario. Figures 1, 2, and 3 have been chosen as a digestible and consistent way to represent the possible equity value in each action: Figure 1 indicates the low-impact, Figure 2 indicates medium-impact, and Figure 3 indicates high-impact action items regarding community co-benefits and equity. This indication ought to be considered when prioritizing actions and strategies for implementation.



**Figure 2 [above]**  
represents action items  
with a potential for medium  
community co-benefits,  
resilience, and/or equity  
impact.



**Figure 3 [above]**  
represents action items  
with a potential for high  
community co-benefits,  
resilience, and/or equity  
impact.

## Actions

### Airports

Emissions from the DeKalb-Peachtree Airport (PDK) fall into two categories – emissions from planes (specifically jet fuel), and emissions from building and airport operations. While emissions from jet fuel cannot be eliminated at this time (there is currently no readily available electric plane), they can be minimized. However, operations and building emissions can be brought as close to zero as possible. In the emissions mitigation scenario, the focus is on rapidly decarbonizing airport operations, airport building emissions (specific to the airport), and minimizing unnecessary emissions from aircraft. Larger, more impactful actions are prioritized, while smaller “auxiliary” actions are taken second.



#### Action A.1:

#### Airport Building and Ground Fleet Energy

In this scenario, energy is the priority – specifically large-scale, widespread transitions in energy use and sourcing. These efforts will be highly impactful, despite bearing a higher cost. The focus is on monitoring, efficiency, and renewable energy capacity.

**Large-scale solar development on airport grounds** will enable the majority of airport electricity to come from renewable solar, rather than fossil fuels. Additionally, any solar energy not used can be redistributed back to the main electric grid.

**Full ground service equipment (GSE) transition to zero- or low-emissions vehicles** will reduce emissions from ground service vehicles; however, electrifying the GSE fleet will require charging infrastructure as well as training of maintenance staff.

**Energy consumption monitoring**, including sub-metering for tenants, will allow for a close monitoring of energy use. This can be used to identify opportunities for efficiency improvements, as well as to measure progress.

Finally, **applying buildings efficiency technologies** (incl. lighting, envelope/windows, HVAC, and others) to airport buildings will improve energy efficiency throughout airport facilities.

**Action A.1 Implementation Considerations:**

- **Lead Agency:** Airport, Facilities
- **Timeline:** 10 years
- **Cost:** High
- **Emissions Mitigation:** High
- **Implementation Barriers:** GSE electrification capabilities are not yet widely available, nor are they particularly affordable. Additionally, the installation of widespread solar will be time-consuming and costly, while requiring extensive planning.
- **Equity, Resilience, and Community Co-Benefits:** Potential for moderate community benefits; additional electricity generated from solar power could be sold back to DeKalb County's power grid; health benefits associated with reduction of emissions.



**Action A.2:  
Aircraft Engine Use Reduction**

**Reducing non-essential aircraft engine/auxiliary power unit (APU) use** on tarmac will reduce the emissions from engine fuel. Emissions reductions from this action will depend on current operations and usage.

**Shortening the turnaround time** for aircraft at the gate for aircraft will decrease the amount of time during which engines are running.

Additionally, **installing and/or maximizing the use of preconditioned air units** (if applicable at PDK) enables aircrafts to remain cool without running engines, reducing emissions from aircraft engines or APUs.

**Action A.2 Implementation Considerations:**

- **Lead Agency:** Airport Operations
- **Timeline:** 5 years
- **Cost:** Medium to Low
- **Emissions Mitigation:** Low to Medium, depending on current conditions
- **Implementation Barriers:** A high degree of workforce training and revamping of SOPs will be necessary to introduce the new policies.
- **Equity, Resilience, and Community Co-Benefits:** Limited community benefits include reduced noise and air pollution.



### **Action A.3: Future Planning & Resilience**

**Implementing efficiency and sustainability standards** for future airport development, as with other county buildings, will allow the airport to rise to a model of high efficiency and preparedness for future climate scenarios. In addition to maximizing efficiency within the airport itself, resilience planning will be paramount. This includes tarmacs that can handle high heat and extreme weather, contingency plans for crews working in high heat and extreme weather, and resilient buildings and structures.

#### **Action A.3 Implementation Considerations:**

- **Lead Agency:** Airport, Facilities
- **Timeline:** 10-20 years
- **Cost:** Planning – Low. Implementation – High.
- **Emissions Mitigation:** Medium to Low
- **Implementation Barriers:** Determining which standard to use for building efficiency (LEED, GBI, etc.) requires extensive research and consultation with the certifying body. All modifications suggested are time consuming and costly.
- **Equity, Resilience, and Community Co-Benefits:** Increased airport resilience leads to increased reliability in air travel for community members and those using the airport. Increased efficiency and sustainability standards will improve things such as air pollutant exposure for airport staff and frequent travelers, as well as result in co-benefits for nearby residents and communities bearing the brunt of airport emissions and pollutants.

## **Buildings**

In the Emissions Mitigation Scenario, actions are prioritized that have the greatest potential to reduce County emissions in the long term. The scenario achieves most progress towards emissions mitigation goals with...

- Transformative changes to the way buildings are built within the county, emphasizing energy efficiency such that future buildings will require dramatically less energy to heat, cool, light, and service.
- Integration with green infrastructure measures to improve the resilience of not just an individual building, but also its environment, creating feedbacks that reduce long-term energy demands.
- Cohesive planning in parallel with County transportation infrastructure.

Buildings actions are designated to be led by the Facilities Department, with additional input and leadership from Departments that own and operate sizeable facilities.

The Emissions Mitigation Scenario anticipates a future where County facilities consume dramatically less energy than they do now to achieve the same or better levels of comfort, safety, and performance. These achievements are attainable with significant investments in new efficiency technologies over the coming 10 years. The approach includes the adoption of new guidelines for building design, a process for retrocommissioning and rehabilitation, and the creation of a new Division for continuous improvement. The Division will be charged with tracking energy use, identifying future efficiency opportunities, and implementing solutions across the County's facilities.

This scenario also contemplates the DeKalb County Facilities Department becoming experts in building efficiency practices. This role will provide the community with a valuable resource by locating efficiency technology experts within the County Government where knowledge can be shared with private and institutional sector partners.



### **Action B.1: Adopt Enhanced Energy Efficiency Requirements for New County Buildings**

Passive building standards produced by Phius are the gold standard for building energy efficiency and emissions mitigation. The standards include residential single family, multifamily, and commercial building standards for achieving net zero energy use and emissions. Phius standards focus on a holistic approach to building sector emissions mitigation – balancing both the cost and embedded emissions of efficiency interventions against the availability of zero-emissions clean energy sources. Phius standards also take into account the region and climate of a building, enabling building owners to adopt the standard without the risk of over- or under-estimating the value of upfront investments.

Phius standards achieve extreme energy efficiency improvements through a focus on isolating the interior of structures from the envelope, minimizing “thermal bridges” that allow thermal energy to escape. Because of the efficiency achieved using these methods, utility costs can often be reduced by downsizing the HVAC equipment. Phius claims that up-front cost premiums can be only 1-3% higher than EnergySTAR standards, with significant long-term benefits in terms of energy cost savings.

This action includes the County adopting PHIUS+ CORE COMM for all new County buildings, the highest-achieving standard for commercial building energy efficiency. An alternative standard (PHIUS+ ZERO COMM) includes the same efficiency measures but also includes specifications for the use of renewable energy generation – this standard is not selected because **Action B.4** addresses the County's acquisition of 100% renewable energy.

An important component of this action is training staff and contractors in the adopted standards. New standards include the specification of certified efficiency products as well as installation methods to mitigate thermal bridging that are as if not more important than the efficiency technologies themselves. Appropriate training is an essential component of standards adoption to ensure that the value of County investments is fully realized.



**Action B.1 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5 years
- **Cost:** Medium (assuming stated cost premium, risk of higher costs)
- **Implementation Barriers:** Workforce training and fiscal constraints
- **Emissions Mitigation:** N/A; supporting measure, avoided emissions are accounted for in **B.1** and **B.2**; without new code and/or retrofits, the Division would be expected to mitigate emissions at the 'Medium' level due to identification and mitigation of sources of energy waste in County facilities.
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development (i.e., creation of local skilled workforce by stimulating demand for advanced building efficiency technologies) is expected to support advanced energy efficiency requirements in the private and community buildings sectors. Improved efficiency requirements reduce peak energy demand requirements for county facilities and improve building resilience to power outages (e.g., improved insulation, daylighting). Cost savings from energy efficient systems can be redirected through County budgets to better invest in and/or serve low-income or disadvantaged (LIDAC) communities.



**Action B.2:**

**Retrofit Existing Buildings to High Energy Efficiency Standards**

Passive building standards are also relevant to existing buildings, and this action recommends a 10-year program for retrofitting the County's facilities to these high standards. Because the County already operates a significant stock of buildings, the adoption and implementation of retrofit standards is likely to be more important for energy efficiency improvements in the County than new building standards.

- **Retrofit Standards:** This action recommends the adoption of Phius Core REVIVE standards for existing commercial buildings. These standards identify best practices for balancing the cost, embodied emissions, and energy efficiency improvements associated with deep building energy retrofits. The standards seek to implement as many passive building principles as possible within the framework of adapting these practices to the existing building. Similarly to the new building standards, Phius Core REVIVE emphasizes the installation of certified windows, doors, insulation systems, and installation methods designed to minimize thermal bridging between the interior and exterior.
- **Training and Workforce Development:** An essential step in implementing this action is provision of training for Facilities Department staff and key contractors. Training for County staff should be provided to ensure that the Department's contracts are executed consistently with efficiency goals. Additional efforts to provide training or attract conferences to promote local workforce development should be considered.

- **Retrofit prioritization:** Prioritize building retrofits by identifying the most energy wasteful buildings in the County's building stock and implementing these projects first; additional considerations to factor into retrofit prioritization include the size of the project and qualifications of available workforce.
- **Retrofit implementation:** Stage retrofits of County facilities over a reasonable but actionable timeline; ensure contracts are executed in compliance with Phius standards and use verification practices to ensure that planned efficiency goals are achieved.

**Action B.2 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5 years (immediate)
- **Cost:** Very High; retrofits are anticipated to be the largest expense in this scenario but will address the largest share of emissions.
- **Implementation Barriers:** Workforce barriers are likely to be significant, possible barriers associated with supply chain and supplies of Phius-certified products.
- **Emissions Mitigation:** Very High; buildings sector emissions are the County's largest, and Phius standards are expected to reduce building energy use by 30-50%.
- **Equity, Resilience, and Community Co-Benefits:** **Equity, Resilience, and Community Co-Benefits:** Potential for significant cost savings that can benefit residents and businesses as savings can be redirected through County budget to better serve LIDAC communities; promotion of local workforce development and training; improves resilience of aging building stock utilized by community in emergency scenarios.



**Action B.3:  
Create New Division for Facilities Transformation**

This action proposes the establishment of a Facilities Transformation Division within the Department of Facilities. This new Division would adopt the roles necessary for implementing many of the actions identified in this scenario. The Division would lead adoption of standards, staff training, implementation of efficiency improvements, monitoring and analysis of energy use, and coordination of County and intergovernmental resources on energy efficiency and emissions mitigation.

- **Standards adoption:** PHIUS+ standards are designed to be used by engineers and construction managers, however intergovernmental coordination of design and retrofit projects will require management from the new Division.
- **Training:** The Division should serve as a repository of emissions mitigation and energy efficiency knowledge within the County. The Division should seek to acquire expertise by engaging with PHIUS trainings, as well as relevant conferences and similar efficiency standards (e.g., EnergySTAR, IECC, etc.).
- **Implementation and monitoring:** The Division's staff will be responsible for overseeing the selection, prioritization, management, and validation of standards compliance for both new construction and building retrofit projects. The Division would also be

responsible for selecting contractors and managing contracts to ensure quality workmanship. Because building efficiency measures rely on both novel technologies and appropriately executed installation methods, one of the Division's most important roles will be ensuring that any retrofits or new construction work done to improve energy efficiency is completed in accordance with vendor specifications and the relevant code/standard.

- **Data collection and analysis:** The County's lack of data on energy use (including insufficient differentiation on how electricity is used, and no data on fuel use for building energy) prevents quantification of estimates of action emissions impacts. The Division would collaborate across the County to ensure that relevant agencies have access to accurate and timely energy and emissions data.

**Action B.3 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5 years (immediate)
- **Cost:** High (includes onboarding new staff)
- **Implementation Barriers:** Workforce training and support, as well as fiscal constraints.
- **Emissions Mitigation:** N/A; supporting measure, avoided emissions are accounted for in **B.1** and **B.2**; without new code and/or retrofits, the Division would be expected to mitigate emissions at the 'Medium' level due to identification and mitigation of sources of energy waste in County facilities.
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development (i.e., creation of local skilled workforce by stimulating demand for advanced building efficiency technologies) is expected to support advanced energy efficiency requirements in the private and community buildings sectors; improved efficiency requirements reduce peak energy demand requirements for county facilities and improve building resilience to power outages (e.g., improved insulation, daylighting).



**Action B.4:**

**Acquire 100% Renewable Electricity through Multiple Approaches**

Renewable energy can be purchased from suppliers who produce energy with 100% carbon-free resources (including solar PV, wind, hydro, and nuclear power). Currently, Georgia Power (GP) offers at least two different ways to subscribe to renewable energy via price adders on the traditional tariff. Procurement of renewable energy through GP is an attractive option because relying on the utility ensures that energy delivery will remain consistent and cost risks are mitigated. GP's current offerings for carbon-free electricity are contingent on the tariff class of the ratepayer, thus some additional negotiations may be necessary if the County utilizes a different tariff type.

DeKalb County may also consider development of local renewable energy resources, including rooftop, parking shed, greenfield, and brownfield solar PV installations (see **Action MSW.5**). By building a collection of local renewable energy generation facilities (called distributed energy resources, DERs), DeKalb County can ensure control over the resource, including certainty about long-term costs, energy availability during periods of peak demand, and if desired, the ability to isolate and ‘island’ parts of the grid during outages. These installations will not affect the County’s emissions mitigation progress, and the selection of DER sites will primarily provide community development and resilience co-benefits, thus they are deprioritized relative to the goal of acquiring carbon-free electricity.

Different from other scenarios, the timeline for renewable energy procurement is accelerated in the Emissions Mitigation scenario, with a recommendation for immediate adoption of GP’s offerings for renewable energy credits sufficient to meet the County’s demand. This acquisition should be completed over the next five years, with planning for County DERs to roll out over the following decades.

**Action B.4 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** 5 years (immediate), depending on GP’s capacity to supply RECs under current tariffs; 20+ years for DER development, with a focus on sites that are appropriate for maximizing community and resilience co-benefits
- **Cost:** Medium to High
- **Emissions Mitigation:** 100% of facility electricity emissions
- **Implementation Barriers:** Finding adequate supply and setting up the electric grid to import renewable energy from outside sources.
- **Equity, Resilience, and Community Co-Benefits:** Because utility-supplied renewable energy is supplied by the distribution grid, it has no resilience risk or benefit compared to traditional grid-supplied electricity; community and equity co-benefits may potentially be achieved through a small reduction in (non-GHG) air pollution associated with electricity production near DeKalb County, however the expected impact of the County’s actions alone is likely very small.

## Fleets

While DeKalb County may have several fuel-efficient vehicles as part of its fleet, traditional gas vehicles still contribute to emissions. To pursue an aggressive path towards decarbonization, the County must fully convert its fleet to electric vehicles (EVs) and implement adequate charging infrastructure. This effort will require County departments working in concert with each other, which is why the establishment and funding of a Fleet Electrification Task Force to coordinate the changes.



### **Action F.1: Full Fleet Electrification**

The top priority in reducing emissions from county fleet vehicles should be full electrification of County fleet vehicles on an accelerated timeline. Fleet vehicles should be replaced as soon as possible, with the Facilities Fleet Division working closely with Purchasing and all departments which use fleet vehicles to identify an adequate replacement.

By **establishing a Fleet Electrification Task Force**, representatives from all relevant departments can work together to ensure a smooth transition to a fully electrified county fleet. This will include identification and purchasing of adequate replacement vehicles (working closely with the departments currently using vehicles), oversight of training the fleet maintenance division, development of charging infrastructure (including maintenance), and other questions of implementation.

**Full conversion of the fleet to Plug-In Electric Vehicles (EVs)** will remove gas vehicles from County use, thereby eliminating emissions from County vehicles. The Task Force should prioritize an affordable, durable, and otherwise suitable replacement, working closely with all departments to identify which ones need vehicles, and in what capacity. While an immediate replacement would be the quickest way by which to reduce emissions from vehicles, there are other options. A phased approach, in which retiring vehicles are replaced by EVs, would be slower yet more cost-effective (timeline depends on the current fleet age and needs).



**Action F.1 Implementation Considerations:**

- **Lead Agency:** Facilities
- **Timeline:** 10 years
- **Cost:** High
- **Emissions Mitigation:** High
- **Implementation Barriers:** Barriers are numerous, cost being the highest. Charging infrastructure is another, as discussed below. Finally, replacement of current fleet vehicles renders them stranded assets; resale potential should be explored to minimize this issue.
- **Equity, Resilience, and Community Co-Benefits:** Reduced air pollution from county vehicles may have positive impacts on community health. Prioritization of electrifying routes and vehicles servicing vulnerable communities can have a higher impact on equity. Cost savings from fuel prices can be redirected through

County budget to better serve LIDAC communities. Community benefits from charging infrastructure are discussed below in **Action F.2.**



**Action F.2:  
Infrastructure and Operations Expansion**

Full County fleet electrification will require an extensive shift in infrastructure, fleet SOPs, maintenance capabilities, and operations.

**Expanding charging infrastructure** will be the first step in ensuring that the electric fleet is ready to function for the county's needs. An operations and route assessment will help to best understand where fleets will most frequently need to be recharged. Additionally, since charging takes more time than filling up gas at the pump, this should be factored into regular County fleet operations. Notably, if charging infrastructure were open to the public, it would be possible that the collected pay rates from charging could offset the cost of charging infrastructure in the long term. Conversely, lowering the cost of charging would make it more accessible to residents.

**Evaluating and re-vamping current fleet SOPs** will be required to ensure that the County has adequate maintenance training and staff to support an electric vehicle fleet, and that staff using fleet vehicles are prepared to switch.

**Action F.2: Implementation Considerations:**

- **Lead Agency:** Facilities (Fleet Maintenance)
- **Timeline:** 5 years
- **Cost:** Medium
- **Emissions Mitigation:** Low (bulk of emissions reduction comes from fleet electrification)
- **Implementation Barriers:** Workforce training can present challenges during a fleet transition; added charging time for EVs may temporarily cause disruptions in fleet use.
- **Equity, Resilience, and Community Co-Benefits:** Charging infrastructure, if made accessible to the public, will improve public access to EV charging and reduce barriers to EV ownership. ~~Prioritization of communities with high volumes of commuters and car owners, as well as those who face systemic barriers to car ownership, ought to be considered to maximize the community impact of this strategy.~~

## Land Use



**Action L.1:**

**Integrate Carbon Mitigation into Unified Plan**

One of the County's most potent tools for mitigation of Community emissions is the County's control over how and where to site buildings, roads, infrastructure. By controlling factors like the density and design of buildings, the proximity of buildings to one another, and the infrastructure that connects them, the Unified Plan (including both the Comprehensive Transportation Plan and the Comprehensive Land Use Plan) has a significant effect on the future of both building and transportation emissions in the County.

In order to fully integrate carbon mitigation into the Comprehensive Plan, the Department of Planning and Sustainability should focus on the following principles:

- Multi-unit buildings are more efficient to heat and cool, leading to reduced energy-related emissions, as well as reduced peak demand and lower risk of power outages during extreme heat events.
- Neighborhoods with closer proximity between buildings, and especially with close commercial districts, reduce the number and length of private vehicle trips; fewer and shorter trips reduce fuel use, transportation emissions, and associated community impacts.
- Housing abundance reduces housing costs, and reduced reliance on private cars and trucks reduce household transportation costs; together these factors improve the resilience of the community to the future increases in the cost of energy and associated energy burden, especially in low-income communities.

These principles are already reflected in part in the 2050 Unified Plan, however in order to facilitate the County's transition to net-zero emissions at the lowest possible cost additional actions are recommended. This scenario recommends the following actions or revisions to the Unified Plan:

- Implement the Unified Plan's recommendations for sustainable zoning, but increase the emphasis and application of zoning and code requirements that reduces energy-related emissions from vehicle miles traveled (VMTs); deemphasize zoning that preserves or exacerbates VMTs.
- Explore all options to expand the application of zoning which allows energy efficient multi-family developments.
- Create compact, mixed-use developments which decrease reliance on single-passenger vehicles, per the Unified Plan's statements in principle that new developments should focus on existing activity centers, locations near transit stations, and high-capacity corridors.
- Implement the Unified Plan's small area plans (SAPs), but revise SAPs that fail to achieve significant transportation and land-use emissions mitigation; ensure SAPs have robust internal active transportation networks; SAPs designed around highway corridors without alternative access should be reimagined with active transportation backbones, crossings, and connections to surrounding communities; SAPs that rely excessively on highway/arterial corridors should be deprioritized for new development over SAPs with potential to mitigate VMTs.
- Explore broad-based zoning density bonuses with different approaches in different zones; e.g., auxiliary dwelling units (ADUs) in single-family household neighborhoods, higher-intensity zoning can be similarly upzoned (either in terms of units per parcel, FAR/height limits, etc.).
- Use zoning bonuses to encourage low-emissions practices, including high density development in transit-connected activity centers.

**Action L.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (next Unified Plan update)
- **Cost:** Low to Medium (cost of analysis and development)
- **Emissions Mitigation:** High (primarily community emissions)
- **Implementation Barriers:** Primarily political
- **Equity, Resilience, and Community Co-Benefits:** Increasing zoning density, increasing the housing stock, and reducing the County's reliance on private vehicles for transportation will have significant co-benefits for communities, primarily associated with reduced household expenditures on housing, energy, and transportation; additional resilience co-benefits are associated with lower anticipated peak electricity demand, reduced air pollution, reduced noise, and improved street safety.



**Action L.2:**

**Clean Energy and Microgrid Zoning Incentives**

Microgrids – collections of buildings that are served by their own electricity generation and distribution systems – are an effective tool for improving the resilience of electric supply to external disruption. ‘Islandable’ microgrids can automatically isolate themselves from the electric grid if power supply is disrupted or degraded. These features are attractive for buildings, campuses, or even neighborhoods where the resilience of electric supply is very important. Critical facilities (e.g., hospitals, police/fire stations, schools that serve as emergency shelters, etc.) are excellent candidates for microgrids, as are multi-building campuses (e.g., corporate, academic, etc.).

The County can provide incentives (including zoning incentives) to promote the deployment of microgrids that use zero emissions DERs (i.e., solar or wind) for new developments, including zoning bonuses for density/height/etc. The County can also facilitate deployment by providing explicit zoning permission for specific types of microgrids.

Microgrids are not inherently solutions to the County’s GHG emissions, however deployment of microgrids with solar or wind DERs will shift electricity production away from fossil fuel sources to renewables.

**Action L.2 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Low, zoning changes only
- **Emissions Mitigation:** Low, community emissions only
- **Implementation Barriers:** Technical evaluations
- **Equity, Resilience, and Community Co-Benefits:** Microgrids provide improved resilience for communities they serve, reducing the impacts of power outages, especially during heat emergencies. Microgrids that serve critical facilities benefit the entire community. Equitable implementation will provide incentives to underserved neighborhoods and prioritize critical facilities in vulnerable communities.



**Action L.3:**

**Restriction on HOA Covenants that Impede Emissions Mitigation**

In some jurisdictions, homeowners associations (HOAs) have included contractual language precluding the use of onsite renewable DERs such as rooftop solar panels or other important infrastructure such as outdoor EV charging systems. The County should proactively restrict such measures to further promote solar use and other emissions-mitigating efforts by homeowners.

**Action L.3 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Low, zoning changes only
- **Emissions Mitigation:** Medium, community emissions only
- **Implementation Barriers:** Resistance from HOAs and community members; zoning restrictions and legislative support.
- **Equity, Resilience, and Community Co-Benefits:** Increased deployment of residential and commercial DERs across the County facilitates the transition to zero-carbon energy as well as improving the resilience of the local electricity grid, additionally reduced air pollution; improved access to renewables among residents.



**Action L.4:  
Minimum Tree Canopy**

Amend the tree protection ordinance to eliminate or restrict exemptions in areas with insufficient canopy coverage and/or impose tree replacement requirements. Following development of the UHI Mitigation Plan (**Action S.7**) and using input from the tree canopy records (**Action S.9**), areas designated UHI ‘hot spots’ or with insufficient canopy coverage should be elected for additional restrictions on tree removal permits. Additional restrictions could impose tighter requirements (i.e., adjust the five-tree threshold downward to two trees) or impose alternative compliance pathways (i.e., tree replacement requirements).

**Action L.4 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Identification of under-covered areas, ongoing tree maintenance and associated labor.
- **Equity, Resilience, and Community Co-Benefits:** The effects of extreme heat have a significant negative impact on vulnerable populations including children, the elderly, residents without healthcare. Tree canopy can improve community resilience to extreme heat to alleviate some of the negative impacts. Additional benefits include improved stormwater management, and improved air quality.

## Municipal Solid Waste (MSW)



**Action MSW.1:  
Extend Recycling Collection and Enhance Waste Reduction Efforts in**

County



## Departments and Community MSW

The Sanitation Division can promote several practices across both County operations and the Community that can help reduce emissions from the County landfills, sanitation operations, and public works projects. By extending recycling collection to all County Sanitation customers, landfilling volume can be significantly reduced. Furthermore public-information campaigns to promote waste reduction, reuse, and recycling should be launched to target both residential and commercial customers.

Potential waste-reduction campaigns could include:

- Fliers, websites, and social media outreach can promote the County's recycling program, including advertising the program's contributions to County emissions mitigation goals.
- Partnerships for waste diversion can include promotion of local appliance repair companies, scrap metal recyclers, and electronics recyclers.
- Promotion of composting at the residential or institutional scale can reduce the organic waste contributions to landfill emissions by encouraging families, schools, hospitals, or other major producers of organic wastes to use compost onsite.
- Advertising of groups or mailing lists for donations of unwanted household items (e.g., 'Freecycle,' 'Buy Nothing,' etc.) and/or second-hand stores that accept donations.

### Action MSW. 1 Implementation Considerations:

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Low; information campaign only
- **Emissions Mitigation:** Low to Medium
- **Implementation Barriers:** Community resistance, improper recycling methods, increased cost in labor, and operational challenges associated with updated SOPs.
- **Equity, Resilience, and Community Co-Benefits:** Waste reducing and donation-based programs can benefit low-income and vulnerable communities by minimizing expenditures on durable goods.



### Action MSW.2:

## Launch Organic Waste Collection and Composting for All Sanitation Customers

The anaerobic decomposition of organic wastes in the MSW stream is a major source of methane emissions. Methane is an especially potent GHG, 25x more damaging than carbon dioxide. Whereas landfilling of organic wastes combined with LFG collection and use can capture some of this methane, a much more effective model demonstrated by a growing number of MSW collection systems around the world is the use of municipal composting to avoid the formation of methane altogether.

Composting of municipal organic wastes involves managed decomposition to ensure that waste only produces carbon dioxide as a byproduct rather than methane. Because composting achieves aerobic decomposition, the process removes the largest source of LFG, significantly mitigating landfill emissions.

Expanding municipal waste collection to include compost would require an expansion of the County's existing composting facility at the Seminole Rd. Landfill, potentially even requiring a new facility. Additionally, compost would require collection and management of an additional waste stream, which can add to the cost of MSW operations. However, the diversion of organic wastes into composting will reduce the volume of waste that must be landfilled, offsetting costs somewhat.

**Action MSW.2 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division
- **Timeline:** 10 years
- **Cost:** Medium to High, new costs associated with expanding collection service (including trucks and labor), expanding composting facility, and communicating new program to residents; expected cost savings with reduced volume of MSW and landfilling.
- **Emissions Mitigation:** High, organic waste decomposition is the largest source of LFG
- **Implementation Barriers:** Significant barriers associated with community adoption of composting, however jurisdictions that have implemented it have seen success; workforce barriers associated with expanding composting operations
- **Equity, Resilience, and Community Co-Benefits:** A significant co-benefit of expanded composting operations is the increased production of compost for soil conditioning, reduced emissions of LFGs, which in turn improves local air quality for residents and nearby communities.



**MSW.3:**

**Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects**

DeKalb County has taken important statutory steps to allow the use of recycled concrete aggregates in road construction (eliminating the need for emissions-intensive virgin materials), and the Roads and Drainage Division should seek to utilize recycled concrete aggregates for road foundations wherever feasible. Similarly, recycled asphalt products are available within the metro Atlanta region and should be used whenever feasible to reduce lifecycle emissions associated with road paving.

**Action MSW.3 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 10 years
- **Cost:** Low to Medium
- **Emissions Mitigation:** Low to Medium
- **Implementation Barriers:** Recycled aggregates must be clean of impurities.
- **Equity, Resilience, and Community Co-Benefits:** Limited additional benefits; reduction in air pollution associated with lifecycle emissions.



**MSW.4:**

**Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations**

Because anaerobic decomposition of organic wastes in MSW streams is a major source of methane emissions (a GHG 25x more potent than CO<sub>2</sub>), the County should review its MSW collection, carting, and landfilling operations to ensure that fugitive methane emissions are avoided wherever possible. While significant actions have already been taken to control LFG emissions (e.g., LFG collection and waste-to-energy facility at the Seminole Rd. landfill), the Sanitation Division should establish a program of recurring top-to-bottom reviews (e.g., aligned with Comprehensive Plan cycles) to monitor, track, verify, and mitigate potential LFG leaks at all stages of the Sanitation Division's work.

A review could consist of a systematic identification of opportunities for LFG leakage (e.g., during carting, at various stages of landfilling, and from LFG collection, cleaning, pressurization, and distribution pipelines), followed by targeted monitoring using both portable and fixed optical gas imaging (OGI) and electromechanical/spectrometry sensors. Opportunities to shorten the residence time of organic wastes in waste collection trucks and in other anaerobic holding piles may be available. Potential leaks in LFG collection and transportation, as well as LFG processing operations should also be addressed. The purpose of each review will be to identify and mitigate any existing leaks, as well as provide an opportunity to strategize how to further reduce methane leaks.

A more intensive approach to this action could include the initiation of an internal Leak Detection and Repair (LDAR) program within the Sanitation Division, aligned with an annual LDAR report. Best practices for LDAR programs are published by the U.S. Environmental Protection Agency.

**Action MSW.4 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low to Medium, depending on extent of fugitive emissions.
- **Implementation Barriers:** Labor and workforce development; potential technical support may be available from U.S. EPA or Georgia EPD.
- **Equity, Resilience, and Community Co-Benefits:** Methane leaks are primarily a climate hazard with few immediate impacts on communities, however LFG leaks may also include volatile gases with potential nuisance or health impacts on communities; mitigating LFG leaks will benefit communities near major LFG sources (predominantly the Seminole Rd. Landfill).



**MSW.5:**

**Onsite Solar Generation at Seminole Rd. Landfill**

The Seminole Rd. Landfill site features ongoing landfill operations as well as significant areas of closed landfills (collectively Phase 1, 2, and 2A). The closed landfill areas offer an opportunity to develop county-owned solar generation on a brownfield site with no alternative uses in the mid- to long-term. Additionally, federal tax credits make energy development on the site particularly attractive. Based on area alone, the Phase 2 area could theoretically host a solar PV system with 60MW of generating capacity with direct access to the existing GP transmission facilities onsite. A system of this size could generate upwards of 80,000 MWh/year of zero-carbon energy, offsetting a significant amount of the County's existing electricity demand.

**Action MSW.5 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability and Dept. of Public Works, Sanitation Division
- **Timeline:** 10 years
- **Cost:** Very High (~\$63 million CAPEX for a 60MW system), federal credits may significantly reduce the cost by upwards of 50%.
- **Emissions Mitigation:** Very high, such a system would offset the majority of the County's current annual demand.
- **Implementation Barriers:** Financing and contracting barriers, technical barriers include use of ballast foundations.
- **Equity, Resilience, and Community Co-Benefits:** Additional electricity generated from solar power could be sold back to DeKalb County's power grid.
- **Equity, Resilience, and Community Co-Benefits:**



**MSW.6:**

## Promote Large-Scale Waste Diversion through a County-Managed Donations Portal

Establish a program for donations of large volumes of useful materials that would otherwise be disposed of through a County-managed portal. The portal would enable corporations and institutions to list surplus material that would otherwise be landfilled for collection by interested parties. For example, New York City operates DonateNYC, a program that facilitates donations to qualified nonprofits. The program enables donors to dispose of unwanted surplus material while also benefiting from tax deductible donations and reducing the volume that the Sanitation department must cart to a landfill. Evaluate possibility of County accepting donations enabling greater access to tax benefits for diverting waste.

### Action MSW.6 Implementation Considerations:

- **Lead Agency:** Planning and Sustainability and Department of Public Works, Sanitation Division
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low to Medium, depending on program success.
- **Implementation Barriers:** Administrative, operating a website at minimum; informational, promotion of program will be necessary.
- **Equity, Resilience, and Community Co-Benefits:** Reduced carting and landfilling of waste, reduced air pollution and noise, reduced LFG emissions; facilitation of donations for nonprofits.

## Parks & Agriculture

Parks are inherently a low- or zero-emissions sector. Most emissions from the parks sector come from park buildings or fleets, which are already covered in their respective sections. Rather than "decarbonizing" the remaining components of the parks sector, we aim to maximize the emissions mitigation potential of green spaces by expanding them, improving their care and maintenance, and ensuring their sustainability and resilience.



### Action P.1:

#### Expand Green Spaces, Urban Tree Cover in DeKalb County

Creating an expansion plan for green spaces and urban tree canopy will be one of the most important tools in combatting the Urban Heat Island effect (UHI). The selection of spaces which should be expanded or created will be a question of how to prioritize Parks Department resources. This decision should prioritize communities facing disproportionate barriers to accessible green spaces, such as lack of access to parks, insufficient tree cover, characteristics of urban density and the built environment, and several other possible barriers to access. The investment will be mid- to long-term, but very worthwhile for both mitigation and adaptation benefits.



**Action P.1 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 5-10 years
- **Cost:** Medium
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Identifying where to expand parks may be a cumbersome process.
- **Equity, Resilience, and Community Co-Benefits:** This is a measure with very high community, equity, and resilience co-benefits. Urban areas with more tree cover are generally lower temperatures during peak times than areas without adequate tree canopy. Additionally, parks and green spaces have extensively been shown to have high mental and physical health benefits for all populations. Additionally, low-income communities in densely populated urban areas have generally been shown to have far less access to green spaces (as well as be more impacted by UHIs); expansion of green spaces to these communities should be prioritized.



**Action P.2:  
Improve Park Resilience and Mitigation Potential**

Flora is an excellent natural carbon sequester. Trees are especially important to natural carbon sequestration, given their size and longevity. However, the ecosystems in parks and open spaces will be especially vulnerable to extreme temperatures and weather in the coming years. When planted environments die, they release carbon back into the atmosphere as they decompose, negating any of their mitigation potential. Park resilience is therefore highly important in maintaining their carbon capture potential, and is a low-cost, low-regret investment.

By first **conducting a vulnerability assessment** of parks and green spaces, the Parks Department and County staff can strategically determine potential weak areas, then develop a more specified plan and timeline for remediation.

**Enhancing flood protection and drainage** will ensure that the flora and root systems in parks and open spaces do not face extensive erosion damage from heavy rains. Additionally, exploring the use of rainwater harvesting will minimize water consumption while diverting rainwater from drainage systems to collection.

Finally, **using resilient native species** will ensure that parks are more resilient to harsh conditions, including invasive species such as bugs (which will thrive in warmer, more humid conditions). Public information campaigns about sustainable landscaping can expand this effort to residential homes with little effort or investment of County resources.

**Action P. 2 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Coordinating department operations may present challenges.
- **Equity, Resilience, and Community Co-Benefits:** The protection and longevity of parks and green spaces will provide significant community co-benefits, enumerated below.

## Streets

The County's direct control over much of the physical environment in DeKalb County is best expressed in the rights of way (ROW) the County owns for residential and urban streets and the roads and highways that connect activity centers. While the County does not directly control the choices that individuals make for personal transportation, the County does have significant influence over the infrastructure that influences individual decisions. While transitioning to ZEVs is an important part of mitigating transportation sector emissions, an equally essential component is helping residents transition away from private on-road vehicles (including cars and trucks) for short trips, especially within the County. By providing useful, convenient, direct, predictable, and safe off-road infrastructure for the growing variety of personal mobility options – including walking and running, bicycling and scooters, and electric micromobility devices – the County can make major strides towards accomplishing this goal and significantly ease the transition for its residents. Taking these actions early can enable lower household costs for car payments and fuel, and reduced congestion, air pollution, noise, and other harms associated with cars and trucks.

Another important role the County plays in exercising its control over street ROWs is providing space for the development and protection of tree canopy. The County has substantial canopy coverage, but development, poor planting practices, and climate change are ever-present threats to this important green infrastructure.



### **Action S.1: County Active Transportation Master Plan**

This action includes the development of an Active Transportation Master Plan for the County. The plan would provide a vision for a connected network of off-road multi-use trails and protected on-road active transportation routes. Collectively, these routes would enable County residents to move safely and conveniently among and around the County's major activity centers without the need for a personal vehicle. The plan should include a list of designated routes, assignment of responsibility for executing the plan, a system for collecting community

input and prioritizing each step of the plan, a long-term implementation plan, and inputs for the County's Comprehensive Transportation Plan.

The Active Transportation Master Plan should seek to maximize access, convenience, and usability of the off-road multi-use and protected on-road active transportation route network. This means that routes should connect major residential areas, commercial centers, employment hubs, and transportation hubs, as well as any other major activity centers. Routes should be designed for ease of transportation, prioritizing directness, predictability, and convenience. The routes should seek to minimize unnecessary diversions, unprioritized road crossings, and especially gaps in the network.

The Master Plan should utilize existing routes, but seek to resolve gaps where they exist. For example, the South River Trail takes indirect paths where direct paths would improve the transportation value of the route, and in many cases the trail lacks connections to surrounding activity centers.

The Master Plan should also provide design solutions for adding protected active transportation lanes to important corridors. These could include design solutions for narrow, two-lane County roads (e.g., Columbia Rd, Peachcrest Rd, S Deshon Rd, Briarcliff Rd, etc.), multi-lane County roads (e.g., Panola Rd, Hairston Rd, N Decatur Rd, etc.), and State Highways (e.g., Candler Rd). By developing design guidance alongside peers from the Department of Public Works, future implementation projects can be accelerated by use of reference designs.

The Master Plan should explore unused right-of-way (ROW) opportunities, including potentially utility ROWs owned by Georgia Power, and unused margins of existing interstate highway ROWs owned by the state. Development of off-road multi-use paths along these ROWs could provide unique new direct paths between core activity centers without laborious road redesigns.

The Master Plan should include a methodology for engaging with community stakeholders to identify opportunities for local connections to the network. As identified in the DeKalb County Parks Master Plan, communities have expressed strong desire for additional passive recreation facilities – especially off-road trail networks; the stakeholder input collected for previous planning efforts should be folded into the development of the Master Plan.

**Action S.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, significant support from the Department of Public Works and Recreation, Parks, and Cultural Affairs
- **Timeline:** 5 years
- **Cost:** High
- **Emissions Mitigation:** Very High (community only)
- **Implementation Barriers:** Community needs and network assessment to analyze needs of the community for increasing active transportation; consistent and frequent communication with stakeholders.
- **Equity, Resilience, and Community Co-Benefits:** Very high community benefits including significant new recreational asset, improved quality of living, reduced transportation costs, reduced air pollution, congestion, etc.



**Action S.2:  
Incentives for Non-Road Commuters**

Implement an incentive program for County employees who commute using alternative transportation methods instead of driving. The program could offer various incentives, such as subsidized public transportation passes, bike-sharing memberships, or rewards for carpooling. Federal law also allows for pre-tax commuter benefits, including up to \$315/month for qualified alternative transportation methods (including vanpooling, public transit, and even bicycling). To promote carpooling, designated or subsidized parking spaces closer to the workplace entrance could be reserved for employees who choose to share rides. Secure storage facilities (appropriate for a breadth of micromobility solutions from bicycles to scooters, e-bikes, and unicycles) can help prevent theft, which is a common problem for micromobility users. The County could organize periodic challenges or competitions to encourage employees to embrace alternative commuting options, with prizes ranging from gift cards to extra paid time off. By fostering a culture that values and rewards sustainable transportation choices, the County not only contributes to environmental conservation efforts but also promotes employee well-being and community engagement.

**Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Medium
- **Emissions Mitigation:** Very Low to Low; while Scope 3 emissions are not necessarily part of the County's goals, the cost to the County for these incentives would be very low relative to the mitigation impacts and benefits to employees.
- **Implementation Barriers:** Possible contracting issues
- **Equity, Resilience, and Community Co-Benefits:** Enables County employees' greater choice in commuting options, including lower-cost options for low-income employees. Promotion of alternative transportation such as biking, walking, or running may have positive impacts upon County employee health and wellbeing.



**Action S.3:**

**Pilot Partnership for Use of Non-Road Utility Vehicles**

Explore partnerships with vendors of electric-assist pedalvans, cargocycles, and small electric cargo vehicles to launch a pilot program in DeKalb County. Many vendors (UPS, Westward, Alke, Electric Wheels, Yokler, Vok, Fernhay, etc.) are offering or adopting downscaled electric or electric-assist delivery vehicles that can utilize active transportation lanes as a means of bypassing congestion and improving the efficiency of last-mile delivery services. The unifying characteristic of these vehicles is that they use less space than a typical vehicle and can fit in smaller lanes, combined with electric or electric-assist pedal drives that significantly reduce air pollution associated with delivery trucks on residential streets. A partnership program with a vendor could lead to the development of a policy for allowing these types of vehicles to be used in active transportation lanes and multi-use paths, similar to the rules recently adopted in New York City.



**Action S.3 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department; significant assistance from Public Works Department, Transportation Division
- **Timeline:** 10 years
- **Cost:** Very Low
- **Implementation Barriers:** Labor costs associated with establishing relationships and setting up partnerships; potential cultural barriers.
- **Emissions Mitigation:** Very Low; the pilot program would focus on commercial delivery vehicles, not County fleet vehicles, thus mitigation would not affect County emissions; Community emissions impact is Low.
- **Equity, Resilience, and Community Co-Benefits:** Potential to mitigate community air pollution associated with heavy duty trucks in residential areas; improved traffic safety due to fewer trucks on the road; reduced noise.



**Action S.4:  
EV Charging Network Master Plan**

Produce a master plan for the ideal location of publicly accessible EV charging stations across the County. Include dual use locations (i.e., public charging stations co-located with County fleet charging stations) as well as ideal locations to serve the County's major activity centers. Identify appropriate sites for Level 2, Level 3, and DC Fast Charging stations. Locations may include transit hubs, activity centers, and sites near major highway interchanges. The Master Plan should be designed in such a way that it will help guide future development from public, private, and institutional property owners. By providing a plan, the County can help provide certainty about EV viability in DeKalb County, encouraging fleet and private owners to adopt EVs.

**Action S.4 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 – 10 years
- **Cost:** Medium
- **Emissions Mitigation:** Low (County), Medium (community); County emissions are unlikely to be significantly affected by the improved availability of EV charging infrastructure. Community emissions impacts may be moderate (i.e., by enabling greater EV penetration, depending on the extent of incentives/scope of deployment.
- **Implementation Barriers:** High upfront costs; network analysis to find high-priority, high use areas for charging stations.
- **Equity, Resilience, and Community Co-Benefits:** Significant community co-benefits if accelerated EV charger deployment is achieved; reduced costs/improved convenience for EV owners; reduced air pollution associated with ICE vehicles.



### **Action S.5: Provide Incentives for EV Charging Stations on Private Developments**

Through partnerships with developers, large commercial and residential landlords, and with institutional campuses, the county can significantly accelerate the growth of EV-enabling infrastructure. Partnerships could include incentives such as cost-sharing, tax incentives, zoning bonuses, or streamlined permitting processes to encourage developers to integrate charging stations into new commercial and residential developments. This approach not only spreads the financial burden but also taps into the expertise and resources of private developers, ensuring that charging stations are strategically located and readily accessible to EV owners across the County, and that residents and users of these buildings are made aware of the availability of charging infrastructure. This approach also fosters a symbiotic relationship wherein developers enhance the attractiveness of their properties while contributing to the county's sustainability goals and the wider transition towards electric mobility.

#### **Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (immediate)
- **Cost:** Medium
- **Emissions Mitigation:** Low; County emissions are unlikely to be significantly affected by the improved availability of EV charging infrastructure. Community emissions impacts may be moderate (i.e., by enabling greater EV penetration, depending on the extent of incentives/scope of deployment)
- **Implementation Barriers:** Potential legal questions/complications depending on type of incentives to be employed; contract enforcement obligations
- **Equity, Resilience, and Community Co-Benefits:** Significant community co-benefits if accelerated EV charger deployment is achieved; reduced costs/improved convenience for EV owners, reduced emissions and air pollution from ICE vehicles.



### **Action S.6: Adopt a Complete Streets Policy**

The County Comprehensive Plan recommends the adoption of a Complete Streets policy, and this recommendation is reiterated here. The policy would revise the Code of Ordinances to include improved design guidance/requirements and encourage local, regional, and state agencies to incorporate the policy into any road projects they lead in the County. Critically, the proposed Complete Streets Policy in the Comprehensive Plan identifies exceptions for the inclusion of protected active transportation lanes on County roads, and these exceptions include broad language about “probable need/probable use,” especially relative to cost. It is essential that the County adopt a Policy that accounts for a vision of the County’s transportation system (see **Action S.1**) to encourage a much greater share of non-motor vehicle transportation; thus evaluation of “need” and “probable use” should not be backward-looking, but forward-looking measures based on the vision articulated in the Active Transportation Master Plan. The risk of

using backward-looking metrics (e.g., historical use data) is that only a fragmented patchwork of active transportation infrastructure will be completed, depriving the County's residents of a true alternative network for non-motor vehicles.

This action may be completed separately or as a part of **S.1: County Active Transportation Master Plan**.

**Action S.6 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, with significant support from the Department of Public Works
- **Timeline:** 5 years
- **Cost:** Medium; planning efforts must address a wide variety of road types
- **Emissions Mitigation:** High; limited primarily to community emissions
- **Implementation Barriers:** Engineering, jurisdictional boundaries, possible scattered community opposition
- **Equity, Resilience, and Community Co-Benefits:** Very high community benefits, including significant new recreational asset, improved quality of living, reduced transportation costs, reduced air pollution, congestion, etc.
- 



**Action S.7:**

**County-Wide Urban Heat Island Effect (UHI) Mitigation Plan**

Develop a County-wide plan for addressing UHI with improved planning and infrastructure within the County ROW on County roads. The plan should include a vision, goals, strategy individual actions, and supporting metrics for determining where and when actions will be taken. The plan should provide both the Department of Public Works Transportation and Roads and Drainage Divisions' staff with the decision-making tools, example solutions, and long-term vision for achieving the plan's goals.

The UHI mitigation plan should include an assessment of existing exposure to UHI across the county, and include a method for prioritizing interventions based on vulnerability to extreme heat and energy burden impacts.

**Action S.7 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department, significant support from Public Works Department
- **Timeline:** 5 years (immediate)
- **Cost:** Low to Medium; cost of study is assumed to be low (<\$100k); cost of mitigation projects may range from Low to High, depending on intensity of effort
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Technical barriers are low, however new street design principles and practices, urban forestry practices, etc. impose training and transitional burdens on Public Works staff
- **Equity, Resilience, and Community Co-Benefits:** Very high community resilience and equity co-benefits; targeted UHI reduction will reduce acute health impacts of extreme heat, as well as reduce energy burden in communities; significant additional benefits associated with public health, mental health, safety, etc.



**Action S.8:  
Update Streets Design Guidance for UHI Mitigation**

Develop guidelines, standard designs, and an implementation plan for planting shade trees, stormwater bioswales, and other adaptive greenspace within the County ROW on County roads, as well as model designs for municipal streets in the cities and towns. Update the Tree Conservation and Protection guidelines to ensure protection of important canopy trees in high-priority communities (to be determined in **S.7x: County-Wide UHI Mitigation Plan**). Deploy new strategies for rapid growth of a long-term tree canopy. Identify opportunities to include stormwater protection (e.g., with detention basins or bioswales) where needed.

**Action S.8 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department, significant support from Public Works Department
- **Timeline:** Updated guidance, 5 years (immediate); rollout over 25 years (long-term)
- **Cost:** Low (assuming street upgrades are rolled out over time as part of regular street maintenance)
- **Emissions Mitigation:** Very Low (direct County emissions impacts); likely Low community emissions impacts from reduced cooling burden
- **Implementation Barriers:** Technical barriers are low, however new street design principles and practices, urban forestry practices, etc. impose training and transitional burdens on Public Works staff; potential community barriers where public space is transitioned from paved to green space
- **Equity, Resilience, and Community Co-Benefits:** Very high community resilience and equity co-benefits; targeted UHI reduction will reduce acute health impacts of extreme heat, as well as reduce energy burden in communities; significant additional benefits associated with public health, mental health, safety, etc.



**Action S.9:  
Track County Tree Canopy**

Utilize County staff expertise, remote sensing (including commercial products), and regular tree inventories to track the County's tree canopy, especially along County ROWs. Identify areas where canopy is in decline and especially potential hotspots that correlate with vulnerable populations. Produce annual reports tracking changes in tree canopy and provide input to regular County reports such as the Comprehensive Land Use Plan.

**Action S.9 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, with limited support from Department of Public Works and Department of Parks, Recreation, and Cultural Resources
- **Timeline:** 5 years
- **Cost:** Medium
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Very Low, as this is common practice in an increasing number of municipalities
- **Equity, Resilience, and Community Co-Benefits:** Primary benefit is that areas where the urban canopy is insufficient can access remediation more rapidly; including reduced temperatures, increased resilience to extreme heat, reduced energy costs, and improved air quality.



## Waste & Water



### Action W.1:

#### Implement the Water and Wastewater Master Plan and Support Capital Improvement Plan

Implementation of the DeKalb County Water/Wastewater Master Plan will address numerous constraints on both water supply and wastewater removal that threaten to impair the system's efficiency and sustainability over the long term.

##### Action W.1 Implementation Considerations:

- **Lead Agency:** Watershed management
- **Timeline:** 5 - 20 years
- **Cost:** High
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Electrification of components that are not yet commercially available.
- **Equity, Resilience, and Community Co-Benefits:** Resilience is key benefit, ensuring the system is capable of providing water supplies through the planning period. Assessment of vulnerabilities in wastewater systems which disproportionately affect vulnerable communities ought to be considered for maximum equity impact.



### Action W.2:

#### Monitor and Mitigate Fugitive Emissions of Methane

Minimize leaks of anaerobic decomposition gases (primarily methane) at AWWTPs to reduce release of potent GHGs and hazardous VOCs. Review entire system to identify potential opportunities for uncontrolled anaerobic decomposition in sewer trunk lines, within plant, and in plant outputs (e.g., incl. biosolids). Design and implement a program of leak detection and repair (LDAR) consistent with best practices in the wastewater treatment sector.

##### Action W.2 Implementation Considerations:

- **Lead Agency:** Watershed Management
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low to moderate, depending on existing leaks
- **Emissions Mitigation:** Low to Medium, depending on existing leaks
- **Implementation Barriers:** Workforce, technical training, engineering
- **Equity, Resilience, and Community Co-Benefits:** Reduced emissions of fugitive decomposition gases will benefit nearby residents that may be exposed to unwanted VOCs.
- **Equity, Resilience, and Community Co-Benefits:**

 **Action W.3:**  
**Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)**

Conduct energy audit at Snapfinger and Pole Bridge AWWTPs (to be conducted in collaboration with the Facilities Department executing **Action B.3**). Review processes, systems, and equipment for energy waste and efficiency gaps, identify outdated equipment (and replacement options), and evaluate plant processes to identify potential alternatives with energy (and emissions) savings potential. Establish process for recurring review every five years.

Historically, Pole Bridge AWWTP has used significantly more energy than Snapfinger or other WWTPs on a per-gallon basis of treated water; the district should identify if this is still the case, evaluate opportunities to improve energy efficiency, and prioritize capital improvements necessary to achieve these improvements.

**Action W.3 Implementation Considerations:**

- **Lead Agency:** Watershed management with support from Facilities Department
- **Timeline:** 5 – 10 years
- **Cost:** Medium, depending on scope of necessary upgrades
- **Emissions Mitigation:** Medium, the County's water system is a major source of emissions.
- **Implementation Barriers:** Communication and cross-departmental coordination to get buy-in from County, community members. Measuring information campaign effectiveness also poses challenges.
- **Equity, Resilience, and Community Co-Benefits:** Potential energy savings may be redirected through County budget to better serve LIDAC communities.

 **Action W.4:**  
**Electrify and Modernize Equipment**

In support of **WW.1** and **WW.3**, identify and replace any obsolete equipment (including pumps or prime movers) with modern electric pumps and variable frequency drive units.

**Action W.4 Implementation Considerations:**

- **Lead Agency:**
- **Timeline:** 5 – 15 years
- **Cost:** Moderate, depending on scope
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Engineering, workforce
- **Equity, Resilience, and Community Co-Benefits:** N/A



**Action W.5:  
Promote Water Use Efficiency**

Conduct an information campaign to inform customers of the connection between water use and energy waste/GHG emissions to promote best practices and technologies for water use efficiency. Solutions for residential customers may include checking appliances and repairing leaks, installing low-flow shower heads or flow restrictors, only using appliances such as washing machines for full loads, replacing water-hungry lawns with drought-tolerant plants, and using mulch and other water-conservation gardening practices. Commercial customers may benefit from targeted water audits to identify and mitigate major water waste sinks.

**Action W.5 Implementation Considerations:**

- **Lead Agency:** Watershed Management
- **Timeline:** 5 years
- **Cost:** Low, information campaign only
- **Emissions Mitigation:** Low, reduced water consumption will have a small impact on energy use across the water system
- **Implementation Barriers:**
- **Equity, Resilience, and Community Co-Benefits:** More efficient water use will create cost savings that will especially benefit low-income households; improved water conservation offers additional resilience to water scarcity.



**Action W.6:  
Evaluate Sewer and Stormwater System Sufficiency under Climate Scenarios**

Conduct a hydraulic analysis of stormwater loading under projected precipitation and runoff regimes in climate change scenarios. Evaluate the sufficiency of the current system and identify areas of potential backups, overflow, or flooding. Consider projected changes to precipitation patterns in 2050 and 2100, including both a lower- and higher-emissions scenario. Conduct

hydraulic modeling of the major floodplains in the County wherever single-event precipitation totals are projected to increase.

**Action W. 6 Implementation Considerations:**

- **Lead Agency:** Watershed Management, with support from Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Moderate, climate impact evaluation is not costly, but hydraulic modeling can be
- **Emissions Mitigation:** N/A, no emissions benefits
- **Implementation Barriers:** Long-term uncertainty, insufficient data on existing conditions
- **Equity, Resilience, and Community Co-Benefits:** Primary benefit is enabling improved resilience by anticipating future flood risks. Informing residents of their flood risk and producing valuable public service announcements may be pivotal to community resilience in the event of an emergency.

## Timeline

### Present-2030

B.1 Adopt Enhanced Energy Efficiency Requirements for New and Renovated County Buildings

B.2: Retrofit Existing Buildings to High Energy Efficiency Standards

B.3: Create New Division for Facilities Transformation

B.4: Acquire 100% Renewable Electricity through Multiple Approaches

F.1: Begin Full Fleet Electrification and Establish Task Force

F.2: Fleet Infrastructure and Operations Expansion

S.1: County Active Transportation Master Plan

S.2: Provide Incentives for Non-Road Commuters

S.5: Provide Incentives for EV Charging Station on Private Developments

S.6: Adopt a Complete Streets Policy

S.7: County-Wide Urban Heat Island Effect (UHI) Mitigation Plan

S.8: Begin to Update Streets Design Guidance for UHI Mitigation

S.9: Track County Tree Canopy

A.2: Aircraft Engine Use Reduction

WW.2: Monitor and Mitigate Fugitive Emissions of Methane

WW.4: Electrify and Modernize Equipment

WW.5: Promote Water Use Efficiency

WW.6: Evaluate Sewer and Stormwater System Sufficiency under Climate Change

Scenarios

P.1: Begin Expanding Green Spaces, Urban Tree Cover in DeKalb County  
P.2: Improve Park Resilience and Mitigation Potential

MSW.1: Extend Recycling Collection and Enhance Waste Reduction Efforts in County Departments and Community MSW  
MSW.3: Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations  
MSW.4: Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations  
MSW.6: Promote Large-Scale Waste Diversion through a County-Managed Donations Portal

PH.1 Public Health Climate Risk Communication & Outreach  
PH.2 Public Health Risk Monitoring  
PH.3 Public Health Hazard Planning & Prevention

L.1: Integrate Carbon Mitigation into Unified Plan  
L.2: Clean Energy and Microgrid Zoning Incentives  
L.3: Restriction on HOA Covenants that Impede Emissions Mitigation  
L.4: Minimum Tree Canopy

## 2030-2040

B.4: Complete Transition to Acquiring 100% Renewable Electricity through Multiple Approaches

F.2: Complete Full Fleet Electrification

S.3: Pilot Partnership for Use of Non-Road Utility Vehicles  
S.4: EV Charging Network Master Plan

A.1: Airport Building and Ground Fleet Energy  
A.3: Implement Future Airport Planning and Resilience Measures

WW.1: Implement the Water and Wastewater Master Plan and supporting Capital Improvement Plan

WW.3: Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)

P.1 Expand Green Spaces in DeKalb County

MSW.2: Launch Organic Waste Collection and Composting for All Sanitation Customers  
MSW.3: Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects  
MSW.5: Onsite Solar Generation at Seminole Rd. Landfill

PH.1 Continue to Re-Evaluate Public Health Risk Communication & Outreach Strategies



## 2040-2050

B.5: Acquire 100% Renewable Electricity

F.3: Complete Fleet Transition to Lower-Emissions and Zero-Emission Vehicles (ZEVs)

S.8: Complete Rollout of Streets Design Guidance for UHI Mitigation

PH.1 Continue to Re-Evaluate Public Health Risk Communication & Outreach Strategies

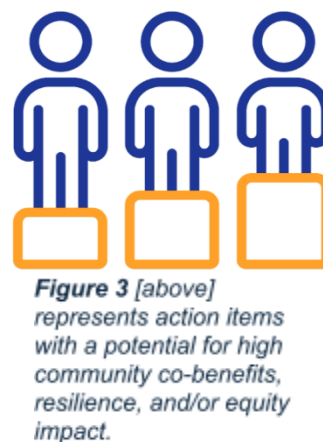
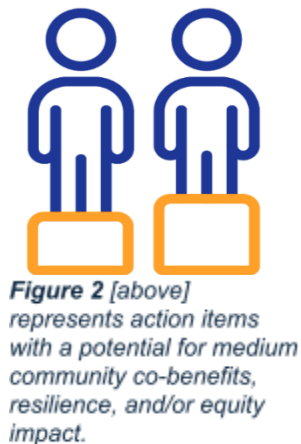
## Scenario C: Balanced Approach

### Scenario Goals

The objective of the Balanced Approach scenario is to identify the actions that are most important for the County to undertake, ensuring the County achieves its emissions mitigation goals and considering the diverse interests of all stakeholders while also prioritizing cost-effectiveness to minimize the fiscal burden of the plan. This scenario combines elements of both Scenarios A and B, and in many sectors pursues identical strategies. The greatest reductions in County emissions are achieved by investing in energy efficiency and electrification in both buildings and vehicle fleets, decarbonizing electricity supplies, and leveraging the County's land use and transportation authority to ensure that future growth does not come at the expense of sustainability. Additionally, the Balanced Approach includes measures to improve the County's resilience to the most urgent climate change hazards, and ensure an equitable distribution of benefits.

Like Scenarios A and B, Scenario C includes a number of 'no regrets' actions including deep investments in building energy efficiency and future planning commitments that will ease the transition to new technologies (both for the County workforce as well as community members). Scenario C does not include as many actions targeting low-payoff emissions as Scenario B, however it does recommend a greater use of pilot programs to demonstrate the potential for these programs than Scenario A. Actions in Scenario C are also less narrowly-focused than actions in Scenarios A or B, with community benefits (including improving resilience, addressing economic & environmental justice, and jobs and economic development).

Finally, the potential equity, community co-benefits, and/or community resilience impact is indicated for each action item throughout the scenario. Figures 1, 2, and 3 have been chosen as a digestible and consistent way to represent the possible equity value in each action: Figure 1 indicates the low-impact, Figure 2 indicates medium-impact, and Figure 3 indicates high-impact action items regarding community co-benefits and equity. This indication ought to be considered when prioritizing actions and strategies for implementation.



## Actions

### Airports

Emissions from the DeKalb-Peachtree Airport (PDK) fall into two categories – emissions from planes (specifically jet fuel), and emissions from building and airport operations. While emissions from jet fuel cannot be eliminated at this time (there is currently no readily available alternative), they can be minimized until technological advancements allow for greater (and more affordable) replacements. Meanwhile, operations and building emissions can be brought as close to zero as possible. In the balanced approach mitigation scenario, the focus is on rapidly decarbonizing airport operations, airport building emissions (specific to the airport), and minimizing unnecessary emissions from aircraft. The focus is on accelerating airport building efficiency (with measures specific to airport buildings) and minimizing unnecessary emissions from aircraft. Larger and more impactful actions, such as investments in alternative fuels or costly operational equipment updates, are taken later.



#### Action A.1:

#### Evaluate and Reduce Non-Essential Airport, Aircraft Energy Use

The first step is a series of low-investment, low-disruption actions to reduce emissions from current airport energy sources and aircraft fuel use. These actions are considered “no regrets” because they carry low risk and little financial strain, offer some co-benefits, and/or help to gather data and plan for future energy use and emissions mitigation potential.

**Collecting and evaluating data** will help chart a detailed, intentional course for next steps. Data would include current and ongoing energy use, emissions, and operations data. By evaluating operations information (such as which gates are most frequently used, turnaround time for aircraft, etc.), valuable insight is gained into how airport and aircraft operations can be made more efficient to decrease emissions.

**Reducing non-essential aircraft/APU use** on tarmacs would lower emissions from aircraft engines. The use of pre-conditioned air units to keep aircraft cool would reduce the need to have the aircraft engines running while the plane sits on the tarmac or at the gates, reducing fuel consumption (which has cost savings co-benefits). If not already in use, it would also be beneficial to implement zero-emissions 400Hz ground power units.

**Shortening the turnaround time** for aircraft at the gate for aircraft will decrease the amount of time during which engines are running.

Additionally, **installing and/or maximizing the use of preconditioned air units** (if applicable at PDK) enables aircrafts to remain cool without running engines, reducing emissions from aircraft engines or APUs.

**Finally, submetering for airport tenants** (if not already in place) would give the airport more data and accountability for energy consumption throughout the building.

**Action A.1 Implementation Considerations:**

- **Lead Agency:** DeKalb- Peachtree Airport
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Implementation is dependent on which measures are already in place.
- **Equity, Resilience, and Community Co-Benefits:** Extended co-benefits may include improved community health over the long-term as emissions-related air pollutants are reduced.



**Action A.2:**

**Future Planning, Resilience, and Energy Transition Preparation**

Improving airport energy efficiency (improved insulation, building envelope, etc.) will increase the return on investment in renewable energy and energy use reduction. In addition to maximizing efficiency within the airport itself, resilience planning will be paramount. This includes tarmacs that can handle high heat and extreme weather, contingency plans for crews working in high heat and extreme weather, and resilient buildings and structures. Finally, in the future, large-scale, widespread transitions in energy use and sourcing will be the final step towards serious emissions reductions. These efforts will be highly impactful, despite bearing a higher cost. Planning ahead and understanding future demand can reduce the cost burden on the county, vendors, users, and taxpayers. The focus is on monitoring, efficiency, and renewable energy capacity.

**Implementing efficiency and sustainability standards** for future airport development, as with other county buildings, will allow the airport to rise to a model of high efficiency and preparedness for future climate scenarios.

**Ensuring airport features are “hardened” for future climate strain**, such as high heat, flooding, etc. will ensure minimal disruption in airport operations or costly repairs down the road. This includes the use of transverse expansion/contraction joints along runways to minimize buckling/cracking, asphalt binder modification (tarmac repaving), highly effective drainage systems in the event of flooding, contingency plans for crews working in high heat, and protected structures that are resilient to severe weather.

**Applying buildings efficiency technologies** (incl. lighting, envelope/windows, HVAC, and others) to airport buildings will improve energy efficiency throughout airport facilities, increasing the benefits gained from energy conservation efforts.

**Large-scale solar development on airport grounds** will enable the majority of airport electricity to come from renewable solar, rather than fossil fuels. Additionally, any solar energy not used can be redistributed back to the main electric grid.

**Full ground service equipment (GSE) transition to zero- or low-emissions vehicles** will reduce emissions from ground service vehicles; however, electrifying the GSE fleet will require charging infrastructure as well as training of maintenance staff.

**Energy consumption monitoring**, including sub-metering for tenants, will allow for a close monitoring of energy use. This can be used to identify opportunities for efficiency improvements, as well as to measure progress.

**Action A.2 Implementation Considerations:**

- **Lead Agency:** Airport, Facilities
- **Timeline:** 10-20 years
- **Cost:** Low planning costs, High implementation costs
- **Emissions Mitigation:** High
- **Implementation Barriers:** Determining which standard to use for building efficiency (LEED, GBI, etc.) requires extensive research and consultation with the certifying body. All modifications suggested are time consuming and costly. GSE electrification capabilities are not yet widely available, nor are they particularly affordable. Additionally, the installation of widespread solar will be time-consuming and costly, while requiring extensive planning.
- **Equity, Resilience, and Community Co-Benefits:** Increased airport resilience leads to increased reliability in air travel for community members and those using the airport. Increased efficiency and sustainability standards will improve things such as air pollutant exposure for airport staff and frequent travelers, as well as result in co-benefits for nearby residents and communities bearing the brunt of airport emissions and pollutants. Additional electricity generated from solar power could be sold back to DeKalb County's power grid. There are also health benefits associated with reduction of emissions and jet fuel air pollution.

## Buildings

In the Balanced Approach, actions which improve building efficiency with lower investment are prioritized, followed by higher impact, higher cost actions. The scenario achieves most progress towards emissions mitigation goals with the following:



- Transformative changes to the way buildings are built within the county, emphasizing energy efficiency such that future buildings will require dramatically less energy to heat, cool, light, and service.
- Integration with green infrastructure measures to improve the resilience of not just an individual building, but also its environment, creating feedbacks that reduce long-term energy demands.
- Cohesive planning in parallel with County transportation infrastructure.

Buildings actions are designated to be led by the Facilities Department, with additional input and leadership from Departments that own and operate sizeable facilities.

The Balanced Approach scenario nevertheless anticipates a future where County facilities consume decreasing amounts of energy (from current levels) to achieve the same or better levels of comfort, safety, and performance. These achievements are attainable with significant investments in new efficiency technologies over the coming 10 years. The approach includes the adoption of new guidelines for building efficiency and design, a process for retrocommissioning and rehabilitation, and the addition of a small team within the facilities department to oversee the buildings energy transition. The specialized team will be charged with tracking energy use, identifying future efficiency opportunities, and implementing solutions across the County's facilities.



**Action B.1:**  
**Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings**

Many opportunities exist to improve the energy efficiency of existing buildings and facilities by retrofitting demonstrated technologies with proven ROIs. A critical part of the lowest-cost approach to mitigating GHG emissions is to avoid unnecessary energy waste, and that means adopting and implementing as many efficiency measures as possible. Building efficiency improvements include a large number of individual actions across every type of building energy use, including:

- **Efficient lighting:** Replace incumbent lighting systems with energy efficient LEDs and installing timers or motion sensors in County buildings that do not already have them
- **Efficient water heating:** Replace boilers and water heaters with high-efficiency models (including heat pump water heaters if the scale/duty cycle justifies the investment), and implement zone controls of hot water loops where applicable
- **Efficient HVAC improvements:** Upgrade existing water chillers with high-efficiency models and/or retrofit with variable frequency drives; replace inefficient heat pumps with high-efficiency models; replace inefficiently-designed systems (including oversized units when upgrading building insulation) with HVAC systems designed from a whole-building perspective; use heating/cooling zone controls, sensors, and smart scheduling (in line with building energy management systems) to eliminate

- wasteful space conditioning; replace window units with mini-split or centralized HVAC systems; replace separate heating and cooling systems with combined heat pump systems; install heat recovery fresh air exchangers where not currently used; explore advanced technologies including ground/water-source heat pumps, thermal load storage devices, and solar water heaters
- **Efficient envelope improvements:** Conduct assessments of existing county facilities (i.e., retro-commissioning) including door blower tests and thermal imaging for small buildings, and building energy modeling for larger buildings; mitigate identified leaks, gaps, and other envelope problems; upgrade or mitigate outdated windows with energy efficient options, window laminates, and/or automatic shades to reduce heat gain through windows
  - **Building energy management systems (BEMS):** Deploy a connected, County-scale building energy management system that will allow smart decision-making with regards to building energy use, integration of sensors, advanced scheduling, and program-based operations that account for differences in weather, occupation, etc.

The selection and prioritization of efficiency improvements in County facilities will depend on the County facilities upgrade budget priorities. The prioritization of upgrades should include factors beyond efficiency and cost, including opportunities to leverage already-planned work and/or emergency repairs to incorporate efficiency improvements. Planning and scheduling efficiency improvements is a process that will need to be incorporated into the Facilities Department's budgeting process. The process can be tracked with performance metrics on the number and type of efficiency technologies implemented in each County facility.

**Action B.1 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** Initiation in 2025 (immediate) to be completed over the medium-term (5 – 20 years).
- **Cost:** Very Low to Low; potential future payoffs.
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Largest implementation barriers associated with facilities that host large-scale industrial processes (e.g., landfill, WWTPs), in some cases electrification is not possible with commercially available technologies and carbon-free fuels may be considered.
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development through development of building electrification practices in local construction market. Cost savings from electrification can be redirected through County budget to better serve low-income or disadvantaged (LIDAC) communities.



## **Action B.2: Adopt Enhanced Energy Efficiency Requirements for New County Buildings**

Passive building standards produced by Phius are the gold standard for building energy efficiency and emissions mitigation. The standards include residential single family, multifamily, and commercial building standards for achieving net zero energy use and emissions. Phius standards focus on a holistic approach to building sector emissions mitigation – balancing both the cost and embedded emissions of efficiency interventions against the availability of zero-emissions clean energy sources. Phius standards also take into account the region and climate of a building, enabling building owners to adopt the standard without the risk of over- or under-estimating the value of upfront investments.

Phius standards achieve extreme energy efficiency improvements through a focus on isolating the interior of structures from the envelope, minimizing “thermal bridges” that allow thermal energy to escape. Because of the efficiency achieved using these methods, utility costs can often be reduced by downsizing the HVAC equipment. Phius claims that up-front cost premiums can be only 1-3% higher than EnergySTAR standards, with significant long-term benefits in terms of energy cost savings.

This action includes the County adopting PHIUS+ CORE COMM for all new County buildings, the highest-achieving standard for commercial building energy efficiency. An alternative standard (PHIUS+ ZERO COMM) includes the same efficiency measures but also includes specifications for the use of renewable energy generation – this standard is not selected because **Action B.4** addresses the County’s acquisition of 100% renewable energy.

An important component of this action is training staff and contractors in the adopted standards. New standards include the specification of certified efficiency products as well as installation methods to mitigate thermal bridging that are as if not more important than the efficiency technologies themselves. Appropriate training is an essential component of standards adoption to ensure that the value of County investments is fully realized.

**Action B.2 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5-10 years
- **Cost:** Medium (assuming stated cost premium, risk of higher costs)
- **Emissions Mitigation:** N/A; supporting measure
- **Implementation Barriers:** Workforce training and fiscal constraints
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development (i.e., creation of local skilled workforce by stimulating demand for advanced building efficiency technologies) is expected to support advanced energy efficiency requirements in the private and community buildings sectors. Improved efficiency requirements reduce peak energy demand requirements for county facilities and improve building resilience to power outages (e.g., improved insulation, daylighting). Cost savings from energy efficient systems can be redirected through County budgets to better invest in and/or serve low-income or disadvantaged (LIDAC) communities.



**Action B.3:**

**Retrofit Existing Buildings to High Energy Efficiency Standards**

Passive building standards are also relevant to existing buildings, and this action recommends a 10-year program for retrofitting the County's facilities to these high standards. Because the County already operates a significant stock of buildings, the adoption and implementation of retrofit standards is likely to be more important for energy efficiency improvements in the County than new building standards.

- **Retrofit Standards:** This action recommends the adoption of Phius Core REVIVE standards for existing commercial buildings. These standards identify best practices for balancing the cost, embodied emissions, and energy efficiency improvements associated with deep building energy retrofits. The standards seek to implement as many passive building principles as possible within the framework of adapting these practices to the existing building. Similarly to the new building standards, Phius Core REVIVE emphasizes the installation of certified windows, doors, insulation systems, and installation methods designed to minimize thermal bridging between the interior and exterior.
- **Training and Workforce Development:** An essential step in implementing this action is provision of training for Facilities Department staff and key contractors. Training for County staff should be provided to ensure that the Department's contracts are executed consistently with efficiency goals. Additional efforts to provide training or attract conferences to promote local workforce development should be considered.

- **Retrofit prioritization:** Prioritize building retrofits by identifying the most energy wasteful buildings in the County's building stock and implementing these projects first; additional considerations to factor into retrofit prioritization include the size of the project and qualifications of available workforce.
- **Retrofit implementation:** Stage retrofits of County facilities over a reasonable but actionable timeline; ensure contracts are executed in compliance with Phius standards and use verification practices to ensure that planned efficiency goals are achieved.

**Action B.3 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5-10 years
- **Cost:** Very High
- **Emissions Mitigation:** Very High; Phius standards are expected to reduce building energy use by 30-50%.
- **Implementation Barriers:** Workforce barriers are likely to be significant, possible barriers associated with supply chain and supplies of Phius-certified products.
- **Equity, Resilience, and Community Co-Benefits:** Potential for significant cost savings that can benefit residents and businesses as savings can be redirected through County budget to better serve LIDAC communities; promotion of local workforce development and training; improves resilience of aging building stock utilized by community in emergency scenarios.



**Action B.4:  
Add Dedicated Staff for Facilities Transformation**

This action proposes the establishment of 2-5 new roles within the Department of Facilities. This dedicated Sustainable Buildings Team (SBT) would adopt the roles necessary for implementing many of the actions identified in this scenario. The Team would lead adoption of standards, staff training, implementation of efficiency improvements, monitoring and analysis of energy use, and coordination of County and intergovernmental resources on energy efficiency and emissions mitigation.

- **Standards adoption:** Intergovernmental coordination of design and retrofit projects will require management from the new team.
- **Training:** The SBT should serve as a repository of emissions mitigation and energy efficiency knowledge within the County. The SBT should seek to acquire expertise by engaging with PHIOUS trainings, as well as relevant conferences and similar efficiency standards (e.g., EnergySTAR, IECC, etc.).
- **Implementation and monitoring:** The SBT staff will be responsible for overseeing the selection, management, and validation of standards compliance for both new construction and building retrofit projects. The SBT would also be responsible for selecting contractors and managing contracts to ensure quality workmanship. Because



building efficiency measures rely on both novel technologies and appropriately executed installation methods, one of the SBT's most important roles will be ensuring that any retrofits or new construction work done to improve energy efficiency is completed in accordance with vendor specifications and the relevant code/standard.

- **Data collection and analysis:** The SBT would collaborate across the County to ensure that relevant agencies have access to accurate and timely energy and emissions data, crucial to enabling quantification of estimates of action emissions impacts.

**Action B.4 Implementation Considerations:**

- **Lead Agency:** Facilities Department, Facilities Transformation Division
- **Timeline:** 5-10 years
- **Cost:** Medium-High (includes onboarding new staff)
- **Emissions Mitigation:** N/A; supporting measure
- **Implementation Barriers:** Workforce training and support, as well as fiscal constraints.
- **Equity, Resilience, and Community Co-Benefits:** Technical workforce development (i.e., creation of local skilled workforce by stimulating demand for advanced building efficiency technologies) is expected to support advanced energy efficiency requirements in the private and community buildings sectors; improved efficiency requirements reduce peak energy demand requirements for county facilities and improve building resilience to power outages (e.g., improved insulation, daylighting).



**Action B.5:**

**Acquire 100% Renewable Electricity and Ensure New Building Electrification**

Full building electrification will have only a small impact on emissions reductions if electricity is still generated from fossil fuels. As such, this is a two-part recommendation with closely related actions.

**Transitioning to 100% to renewable energy** does not necessarily mean 100% onsite production. Renewable energy can be purchased from suppliers who produce energy with 100% carbon-free resources (including solar PV, wind, hydro, and nuclear power). Currently, Georgia Power (GP) offers at least two different ways to subscribe to renewable energy via price adders on the traditional tariff. Procurement of renewable energy through GP is an attractive option because relying on the utility ensures that energy delivery will remain consistent and cost risks are mitigated. GP's current offerings for carbon-free electricity are contingent on the tariff class of the ratepayer, thus some additional negotiations may be necessary if the County utilizes a different tariff type.

DeKalb County may also consider development of local renewable energy resources, including rooftop, parking shed, greenfield, and brownfield solar PV installations (see **Action MSW.6**). By building a collection of local renewable energy generation facilities (called distributed energy resources, DERs), DeKalb County can ensure control over the resource, including certainty about long-term costs, energy availability during periods of peak demand, and if desired, the ability to isolate and ‘island’ parts of the grid during outages. These installations will not affect the County’s emissions mitigation progress, and the selection of DER sites will primarily provide community development and resilience co-benefits, thus they are deprioritized relative to the goal of acquiring carbon-free electricity.

The second part of this action is to **ensure that future buildings are fully electrified** in anticipation of decarbonized electricity supply. Because traditional fuels (including natural gas, propane, diesel, etc.) are very costly to decarbonize, the County’s most economically efficient path to decarbonization is via electrification and switching to renewable energy resources. The most significant current uses of fossil fuels within County facilities are for space and water heating; electrification is anticipated to replace these uses with air-source heat pumps, including heat-pump water heaters. Additional uses of fossil fuels (including kitchen appliances, dryers, etc.) can be electrified with a large and growing number of alternative appliances. However, there are currently very few adequate, high-performance options for replacing most major building appliances, such as broilers, and the ones which are available are significantly more expensive. This action is therefore recommended to be implemented in 10-20 years, when the cost and access barriers to new technologies are lower.

**Action B.5 Implementation Considerations:**

- **Lead Agency:** Facilities Department, support from Depts. with significant facilities (e.g., Airport, WWTPs, Landfill, etc.)
- **Timeline:** 10-20 years
- **Cost:** High
- **Emissions Mitigation:** 100% of facility electricity emissions
- **Implementation Barriers:** Finding adequate supply and setting up the electric grid to import renewable energy from outside sources.
- **Equity, Resilience, and Community Co-Benefits:** Because utility-supplied renewable energy is supplied by the distribution grid, it has no resilience risk or benefit compared to traditional grid-supplied electricity; community and equity co-benefits may potentially be achieved through a small reduction in (non-GHG) air pollution associated with electricity production near DeKalb County, however the expected impact of the County’s actions alone is likely very small.

## Fleets

While DeKalb County may have several fuel-efficient vehicles as part of its fleet, traditional gas vehicles still contribute to emissions. To pursue an aggressive path towards decarbonization, the County must fully convert its fleet to electric vehicles (EVs) and implement adequate charging infrastructure. This effort will require County departments working in concert with each other, which is why the establishment and funding of a Fleet Electrification Task Force to coordinate the changes.



### **Action F.1: Fleet Efficiency Optimization**

Optimizing fleet efficiency includes both vehicle efficiency and route optimization. While efficiency optimization is not a “clean fuel” or zero-emissions transition, it is a quick, low-cost adjustment to ensure that emissions from fleet vehicles are kept to a minimum. This option is therefore considered a no-regrets action which can be undertaken almost immediately during a more involved transition to zero-emissions fleet vehicles.

**Route optimization** happens at an operational level within departments that use fleet vehicles, and involves minimizing doubling back, idling in traffic, and other forms of extra travel. This allows for fuel savings, as well as time savings and reduced vehicle stress.

**Maximizing vehicle efficiency** primarily entails conducting vehicle maintenance thoroughly and regularly to ensure vehicles are running smoothly. Current maintenance records from the DeKalb County Public Works Department Fleet Maintenance Division should be assessed for possible gaps, such as additional staffing or equipment needs.

Finally, **idling policies would be aimed at reducing vehicle idling**. This comes in three parts – a policy aimed at reducing idling vehicles, training to ensure vehicle users feel comfortable with the new guidelines, and monitoring to understand idling reduction. Additionally, it is possible to add auxiliary AC units in some heavily-used or larger fleet vehicles during warm months. This allows the driver to remain cool without idling the vehicle.

#### **Action F.1 Implementation Considerations:**

- **Lead Agency:** Public Works Department – Fleet Maintenance
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** None
- **Implementation Barriers:** Potential barriers include inter-departmental coordination on vehicle use and route optimization; development of, as well as training and communication on, updated vehicle and route guidelines; and monitoring capabilities.
- **Equity, Resilience, and Community Co-Benefits:** Improvements to air quality through reduced emissions from County fleets. Potential for reduced traffic congestion due to route optimization. Cost savings from fuel efficiency may be redirected through County budget to serve LIDAC communities.



## Action F.2:

### Infrastructure and Operations Expansion: Electrification Preparation

Full County fleet electrification will require an extensive shift in infrastructure, fleet SOPs, maintenance capabilities, and operations.

By **establishing a Fleet Electrification Task Force**, representatives from all relevant departments can work together to ensure a smooth transition to a fully electrified county fleet. This will include identification and purchasing of adequate replacement vehicles (working closely with the departments currently using vehicles), oversight of training the fleet maintenance division, development of charging infrastructure (including maintenance), and other questions of implementation.

**Expanding charging infrastructure** will be the first step in ensuring that the electric fleet is ready to function for the county's needs. Operations and route assessments will help to best understand where fleets will most frequently need to be recharged. Additionally, since charging takes more time than filling up gas at the pump, this should be factored into regular County fleet operations. Notably, if charging infrastructure were open to the public, it would be possible that the collected pay rates from charging could offset the cost of charging infrastructure in the long term. Conversely, lowering the cost of charging would make it more accessible to residents.

**Finally, evaluating and re-vamping current fleet SOPs** will be required to ensure that the County has adequate maintenance training and staff to support an electric vehicle fleet, and that staff using fleet vehicles are prepared to switch.

#### Action F.2: Implementation Considerations:

- **Lead Agency:** Facilities (Fleet Maintenance)
- **Timeline:** 5-10 years
- **Cost:** Medium
- **Emissions Mitigation:** Low (bulk of emissions reduction comes from fleet electrification)
- **Implementation Barriers:** Workforce training can present challenges during a fleet transition; added charging time for EVs may temporarily cause disruptions in fleet use.
- **Equity, Resilience, and Community Co-Benefits:** Charging infrastructure, if made accessible to the public, will improve public access to EV charging and reduce barriers to EV ownership. Prioritization of communities with high volumes of commuters and car owners, as well as those who face systemic barriers to car ownership, ought to be considered to maximize the community impact of this strategy.



### **Action F.3: Full Conversion of the Fleet to Electric Vehicles (EVs)**

Converting the full county fleet to electric vehicles will remove gas vehicles from County use, thereby eliminating emissions from County vehicles. The Task Force should prioritize an affordable, durable, and otherwise suitable replacement, working closely with all departments to identify which ones need vehicles, and in what capacity. This action will take place in a phased approach, in which retiring vehicles are replaced by EVs, would be slower yet more cost-effective (timeline depends on the current fleet age and needs). While the conversion of light-duty vehicles can happen fairly quickly, with an abundance of options on the market, conversion of heavy-duty vehicles, buses, and fire trucks will take several years to decades until affordable, accessible options are on the market.

**First, the County should prioritize the conversion of light duty vehicles to EVs.** The Fleet Electrification Task Force should work with the county to establish a budget and timeline for the light-duty vehicle transition. This transition can occur at a variety of rates, depending on how aggressive the County chooses to be. For example, in a slower scenario, light-duty vehicles would be replaced as they need to be retired from the fleet due to regular wear and tear. However, this could take several years, if not decades, slowing the ultimate transition to fully electric fleet. Alternatively, in an accelerated scenario, the transition would happen nearly immediately by selling current light duty fleet vehicles and replacing them in a bulk purchasing order. There are several intermediary options; the Task Force and the County should work together to establish a timeline that works best for them.

**Second, the County should electrify moderate heavy-duty vehicles.** This includes heavy-duty trucks, such as buses, flatbeds with water tanks and dump trucks, but does not include heavy duty construction vehicles, fire trucks, etc. The eventual electrification of these vehicles corresponds with the development and availability of new and emerging technology; currently, there are no electric versions of these vehicles available on the market which are accessible to the average county. (Note that there may be viable options for electric buses sooner rather than later; in this case, the transition to an electric bus fleet should be prioritized. Additionally, at this time, the bus fleet should be expanded to maximize public transportation options, as specified in **S.4**).

Finally, the County should **electrify remaining heavy-duty vehicles**. This includes fire trucks, construction equipment, and buses. While there are some electric versions of these vehicles on the market, they are currently highly expensive, sometimes unreliable, and somewhat inefficient, therefore not a pragmatic option for the average fire house or County at this time. However, investments are being made in this area, and technology should improve within the next two decades.



**Action F.2: Implementation Considerations:**

- **Lead Agency:** Facilities (Fleet Maintenance)
- **Timeline:** 10-20+ years
- **Cost:** High
- **Emissions Mitigation:** High
- **Implementation Barriers:** High costs are the primary barrier; additionally, lack of electric heavy-duty vehicle options pose difficulties in a full transition to EVs.
- **Equity, Resilience, and Community Co-Benefits:** Improvements in air quality will benefit all community members, as previously stated.

## Land Use



**Action L.1:  
Integrate Carbon Mitigation into Unified Plan**

One of the County's most potent tools for mitigation of Community emissions is the County's control over how and where to site buildings, roads, infrastructure. By controlling factors like the density and design of buildings, the proximity of buildings to one another, and the infrastructure that connects them, the Unified Plan (including both the Comprehensive Transportation Plan and the Comprehensive Land Use Plan) has a significant effect on the future of both building and transportation emissions in the County.

In order to fully integrate carbon mitigation into the Comprehensive Plan, the Department of Planning and Sustainability should focus on the following principles:

- Multi-unit buildings are more efficient to heat and cool, leading to reduced energy-related emissions, as well as reduced peak demand and lower risk of power outages during extreme heat events.
- Neighborhoods with closer proximity between buildings, and especially with close commercial districts, reduce the number and length of private vehicle trips; fewer and shorter trips reduce fuel use, transportation emissions, and associated community impacts.
- Housing abundance reduces housing costs, and reduced reliance on private cars and trucks reduce household transportation costs; together these factors improve the resilience of the community to the future increases in the cost of energy and associated energy burden, especially in low-income communities.

These principles are already reflected in part in the 2050 Unified Plan, however in order to facilitate the County's transition to net-zero emissions at the lowest possible cost additional actions are recommended. The Balanced Approach scenario recommends the following actions or revisions to the Unified Plan:

- Implement the Unified Plan's recommendations for sustainable zoning, but increase the emphasis and application of zoning and code requirements that reduces energy-related emissions from vehicle miles traveled (VMTs); deemphasize zoning that preserves or exacerbates VMTs.
- Explore all options to expand the application of zoning which allows energy efficient multi-family developments.
- Create compact, mixed-use developments which decrease reliance on single-passenger vehicles, per the Unified Plan's statements in principle that new developments should focus on existing activity centers, locations near transit stations, and high-capacity corridors.
- Implement the Unified Plan's small area plans (SAPs), but revise SAPs that fail to achieve significant transportation and land-use emissions mitigation; ensure SAPs have robust internal active transportation networks; SAPs designed around highway corridors without alternative access should be reimaged with active transportation backbones, crossings, and connections to surrounding communities; SAPs that rely excessively on highway/arterial corridors should be deprioritized for new development over SAPs with potential to mitigate VMTs.
- Explore broad-based zoning density bonuses with different approaches in different zones; e.g., auxiliary dwelling units (ADUs) in single-family household neighborhoods, higher-intensity zoning can be similarly upzoned (either in terms of units per parcel, FAR/height limits, etc.).
- Use zoning bonuses to encourage low-emissions practices, including high density development in transit-connected activity centers.

**Action L.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years (next Unified Plan update), 20 years for implementation
- **Cost:** Low to Medium (cost of analysis and development)
- **Emissions Mitigation:** High (primarily community emissions)
- **Implementation Barriers:** Possible opposition or delay from key stakeholder groups
- **Equity, Resilience, and Community Co-Benefits:** Increasing zoning density, increasing the housing stock, and reducing the County's reliance on private vehicles for transportation will have significant co-benefits for communities, primarily associated with reduced household expenditures on housing, energy, and transportation; additional resilience co-benefits are associated with lower anticipated peak electricity demand, reduced air pollution, reduced noise, and improved street safety.



**Action L.2:**

**Clean Energy and Microgrid Zoning Incentives**

Microgrids – collections of buildings that are served by their own electricity generation and distribution systems – are an effective tool for improving the resilience of electric supply to external disruption. ‘Islandable’ microgrids can automatically isolate themselves from the electric grid if power supply is disrupted or degraded. These features are attractive for buildings,

campuses, or even neighborhoods where the resilience of electric supply is very important. Critical facilities (e.g., hospitals, police/fire stations, schools that serve as emergency shelters, etc.) are excellent candidates for microgrids, as are multi-building campuses (e.g., corporate, academic, etc.).

The County can provide incentives (including zoning incentives) to promote the deployment of microgrids that use zero emissions DERs (i.e., solar or wind) for new developments, including zoning bonuses for density/height/etc. The County can also facilitate deployment by providing explicit zoning permission for specific types of microgrids.

Microgrids are not inherently solutions to the County's GHG emissions; however, deployment of microgrids with solar or wind DERs will shift electricity production away from fossil fuel sources to renewables.

**Action L.2 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5-10 years
- **Cost:** Low, zoning changes only
- **Emissions Mitigation:** Low, community emissions only
- **Implementation Barriers:** Technical evaluations
- **Equity, Resilience, and Community Co-Benefits:** Microgrids provide improved resilience for communities they serve, reducing the impacts of power outages, especially during heat emergencies. Microgrids that serve critical facilities benefit the entire community. Equitable implementation will provide incentives to underserved neighborhoods and prioritize critical facilities in vulnerable communities.



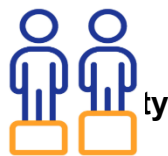
**Action L.3:  
Minimum Tree Canopy**

Amend the tree protection ordinance to eliminate or restrict exemptions in areas with insufficient canopy coverage and/or impose tree replacement requirements. Following development of the UHI Mitigation Plan (**Action S.6**) and using input from the tree canopy records (**Action S.7**), areas designated UHI 'hot spots' or with insufficient canopy coverage should be elected for additional restrictions on tree removal permits. Additional restrictions could impose tighter requirements (i.e., adjust the five-tree threshold downward to two trees) or impose alternative compliance pathways (i.e., tree replacement requirements).

**Action L.4 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Identification of under-covered areas, ongoing tree maintenance and associated labor.
- **Equity, Resilience, and Community Co-Benefits:** The effects of extreme heat have a significant negative impact on vulnerable populations including children, the elderly, residents without healthcare. Tree canopy can improve community resilience to extreme heat to alleviate some of the negative impacts. Additional benefits include improved stormwater management, and improved air quality.

## Municipal Solid Waste (MSW)



**MSW.1:**

**Promote Waste Reduction in County Departments and Targeted**

**Sectors**

The Sanitation Division can promote several practices across both County operations and the Community that can help reduce emissions from the County landfills, sanitation operations, and public works projects. Both community members and commercial customers of the Sanitation Division's collection and carting services may be reached through public-information campaigns to promote waste reduction, reuse, and recycling. Potential waste-reduction campaigns could include:

- Fliers, websites, and social media outreach can promote the County's recycling program, including advertising the program's contributions to County emissions mitigation goals.
- Partnerships for waste diversion can include promotion of local appliance repair companies, scrap metal recyclers, and electronics recyclers.
- Promotion of composting at the residential or institutional scale can reduce the organic waste contributions to landfill emissions by encouraging families, schools, hospitals, or other major producers of organic wastes to use compost onsite.
- Advertising of groups or mailing lists for donations of unwanted household items (e.g., 'Freecycle,' 'Buy Nothing,' etc.) and/or second-hand stores that accept donations.
- Establishment of a Sanitation Division-backed program for donations of large volumes of useful materials that would otherwise be disposed of (e.g., NYC's DonateNYC program for facilitating donations to qualified nonprofits).

**Action MSW.1 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Low; information campaign only
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Consistent, clear information and education to ensure proper waste sorting.
- **Equity, Resilience, and Community Co-Benefits:** Waste reduction and donation-based programs can benefit low-income and vulnerable communities by minimizing expenditures on durable goods. Engagement in a circular economy bolsters community resilience and builds networks for mutual aid beyond government facilitation.



**Action MSW.2:**

**Extend Recycling Collection and Enhance Waste Reduction Efforts in County Departments and Community MSW**

The Sanitation Division can promote several practices across both County operations and the Community that can help reduce emissions from the County landfills, sanitation operations, and public works projects. By extending recycling collection to all County Sanitation customers, landfilling volume can be significantly reduced. Furthermore public-information campaigns to promote waste reduction, reuse, and recycling should be launched to target both residential and commercial customers.

Potential waste-reduction campaigns could include:

- Fliers, websites, and social media outreach can promote the County's recycling program, including advertising the program's contributions to County emissions mitigation goals.
- Partnerships for waste diversion can include promotion of local appliance repair companies, scrap metal recyclers, and electronics recyclers.
- Promotion of composting at the residential or institutional scale can reduce the organic waste contributions to landfill emissions by encouraging families, schools, hospitals, or other major producers of organic wastes to use compost onsite.
- Advertising of groups or mailing lists for donations of unwanted household items (e.g., 'Freecycle,' 'Buy Nothing,' etc.) and/or second-hand stores that accept donations.



**Action MSW. 2 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Low; information campaign only
- **Emissions Mitigation:** Low to Moderate
- **Implementation Barriers:** Community resistance, improper recycling methods, increased cost in labor, and operational challenges associated with updated SOPs.
- **Equity, Resilience, and Community Co-Benefits:** Waste reducing and donation-based programs can benefit low-income and vulnerable communities by minimizing expenditures on durable goods.



**Action MSW.3:**  
**Launch Organic Waste Collection and Composting for All Sanitation Customers**

The anaerobic decomposition of organic wastes in the MSW stream is a major source of methane emissions. Methane is an especially potent GHG, 25x more damaging than carbon dioxide. Whereas landfilling of organic wastes combined with LFG collection and use can capture some of this methane, a much more effective model demonstrated by a growing number of MSW collection systems around the world is the use of municipal composting to avoid the formation of methane altogether.

Composting of municipal organic wastes involves managed decomposition to ensure that waste only produces carbon dioxide as a byproduct rather than methane. Because composting achieves aerobic decomposition, the process removes the largest source of LFG, significantly mitigating landfill emissions.

Expanding municipal waste collection to include compost would require an expansion of the County's existing composting facility at the Seminole Rd. Landfill, potentially even requiring a new facility. Additionally, compost would require collection and management of an additional waste stream, which can add to the cost of MSW operations. However, the diversion of organic wastes into composting will reduce the volume of waste that must be landfilled, offsetting costs somewhat.

**Action MSW.3 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division
- **Timeline:** 10 years
- **Cost:** Medium to High, new costs associated with expanding collection service (including trucks and labor), expanding composting facility, and communicating new program to residents; expected cost savings with reduced volume of MSW and landfilling.
- **Emissions Mitigation:** High, organic waste decomposition is the largest source of LFG
- **Implementation Barriers:** Significant barriers associated with community adoption of composting, however jurisdictions that have implemented it have seen success; workforce barriers associated with expanding composting operations
- **Equity, Resilience, and Community Co-Benefits:** A significant co-benefit of expanded composting operations is the increased production of compost for soil conditioning, reduced emissions of LFGs, which in turn improves local air quality for residents and nearby communities.



**Action MSW.4:**

**Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects**

DeKalb County has taken important statutory steps to allow the use of recycled concrete aggregates in road construction (eliminating the need for emissions-intensive virgin materials), and the Roads and Drainage Division should seek to utilize recycled concrete aggregates for road foundations wherever feasible. Similarly, recycled asphalt products are available within the metro Atlanta region and should be used whenever feasible to reduce lifecycle emissions associated with road paving.

**Action MSW.4 Implementation Considerations:**

- **Lead Agency:** Public Works Sanitation Division, with support from Roads and Drainage Division and Planning and Sustainability Department
- **Timeline:** 10 years
- **Cost:** Low to Medium
- **Emissions Mitigation:** Low to Medium
- **Implementation Barriers:** Recycled aggregates must be clean of impurities.
- **Equity, Resilience, and Community Co-Benefits:** Limited additional benefits; reduction in air pollution associated with lifecycle emissions.



**MSW.5:**

## Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations

Because anaerobic decomposition of organic wastes in MSW streams is a major source of methane emissions (a GHG 25x more potent than CO<sub>2</sub>), the County should review its MSW collection, carting, and landfilling operations to ensure that fugitive methane emissions are avoided wherever possible. While significant actions have already been taken to control LFG emissions (e.g., LFG collection and waste-to-energy facility at the Seminole Rd. landfill), the Sanitation Division should establish a program of recurring top-to-bottom reviews (e.g., aligned with Comprehensive Plan cycles) to monitor, track, verify, and mitigate potential LFG leaks at all stages of the Sanitation Division's work.

A review could consist of a systematic identification of opportunities for LFG leakage (e.g., during carting, at various stages of landfilling, and from LFG collection, cleaning, pressurization, and distribution pipelines), followed by targeted monitoring using both portable and fixed optical gas imaging (OGI) and electromechanical/spectrometry sensors. Opportunities to shorten the residence time of organic wastes in waste collection trucks and in other anaerobic holding piles may be available. Potential leaks in LFG collection and transportation, as well as LFG processing operations should also be addressed. The purpose of each review will be to identify and mitigate any existing leaks, as well as provide an opportunity to strategize how to further reduce methane leaks.

A more intensive approach to this action could include the initiation of an internal Leak Detection and Repair (LDAR) program within the Sanitation Division, aligned with an annual LDAR report. Best practices for LDAR programs are published by the U.S. Environmental Protection Agency.

### Action MSW.5 Implementation Considerations:

- **Lead Agency:** Public Works Sanitation Division
- **Timeline:** 5-10 years
- **Cost:** Low
- **Emissions Mitigation:** Low to Medium, depending on extent of fugitive emissions.
- **Implementation Barriers:** Labor and workforce development; potential technical support may be available from U.S. EPA or Georgia EPD.
- **Equity, Resilience, and Community Co-Benefits:** Methane leaks are primarily a climate hazard with few immediate impacts on communities, however LFG leaks may also include volatile gases with potential nuisance or health impacts on communities; mitigating LFG leaks will benefit communities near major LFG sources (predominantly the Seminole Rd. Landfill).



### MSW.6:

#### Onsite Solar Generation at Seminole Rd. Landfill

The Seminole Rd. Landfill site features ongoing landfill operations as well as significant areas of closed landfills (collectively Phase 1, 2, and 2A). The closed landfill areas offer an opportunity to

develop county-owned solar generation on a brownfield site with no alternative uses in the mid- to long-term. Additionally, federal tax credits make energy development on the site particularly attractive. Based on area alone, the Phase 2 area could theoretically host a solar PV system with 60MW of generating capacity with direct access to the existing GP transmission facilities onsite. A system of this size could generate upwards of 80,000 MWh/year of zero-carbon energy, offsetting a significant amount of the County's existing electricity demand.

**Action MSW.6 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability and Dept. of Public Works, Sanitation Division
- **Timeline:** 10-20 years
- **Cost:** Very High (~\$63 million CAPEX for a 60MW system); however, federal credits may significantly reduce the cost by upwards of 50%.
- **Emissions Mitigation:** Very high; such a system would offset the majority of the County's current annual demand.
- **Implementation Barriers:** Financing and contracting barriers, technical barriers include use of ballast foundations.
- **Equity, Resilience, and Community Co-Benefits:** Additional electricity generated from solar power could be sold back to DeKalb County's power grid.
- **Equity, Resilience, and Community Co-Benefits:**

## Parks & Recreation

Parks are inherently a low- or zero-emissions sector. Most emissions from the parks sector come from park buildings or fleets, which are already covered in their respective sections. Rather than focusing primarily on "decarbonizing" the remaining components of the parks sector, the priority is to maximize the emissions mitigation potential of green spaces by expanding them, improving their care and maintenance, and ensuring their sustainability and resilience.



### **Action P.1:**

#### **Expand Green Spaces and Urban Tree Cover in DeKalb County**

**Creating an expansion plan for green spaces and urban tree canopy** will be one of the most important tools in combatting the Urban Heat Island effect (UHI). The selection of spaces which should be expanded or created will be a question of how to prioritize Parks Department resources. This decision should prioritize communities facing disproportionate barriers to accessible green spaces, such as lack of access to parks, insufficient tree cover, characteristics of urban density and the built environment, and several other possible barriers to access. The investment will be mid- to long-term, but pays off for both mitigation and adaptation benefits.

**Action P.1 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 5-10 years
- **Cost:** Medium
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Identifying where to expand parks may be a cumbersome process.
- **Equity, Resilience, and Community Co-Benefits:** This is a measure with very high community, equity, and resilience co-benefits. Urban areas with more tree cover are generally lower temperatures during peak times than areas without adequate tree canopy. Additionally, parks and green spaces have extensively been shown to have high mental and physical health benefits for all populations. Additionally, low-income communities in densely populated urban areas have generally been shown to have far less access to green spaces (as well as be more impacted by UHIs); expansion of green spaces to these communities should be prioritized.



**Action P.2:  
Improve Park Resilience and Mitigation Potential**

Flora is an excellent natural carbon sequester. Trees are especially important to natural carbon sequestration, given their size and longevity. However, the ecosystems in parks and open spaces will be especially vulnerable to extreme temperatures and weather in the coming years. When planted environments die, they release carbon back into the atmosphere as they decompose, negating any of their mitigation potential. Park resilience is therefore highly important in maintaining their carbon capture potential, and is a low-cost, low-regret investment.

By first **conducting a vulnerability assessment** of parks and green spaces, the Parks Department and County staff can strategically determine potential weak areas, then develop a more specified plan and timeline for remediation.

**Enhancing flood protection and drainage** will ensure that the flora and root systems in parks and open spaces do not face extensive erosion damage from heavy rains. Additionally, exploring the use of rainwater harvesting will minimize water consumption while diverting rainwater from drainage systems to collection.

Finally, **using resilient native species** will ensure that parks are more resilient to harsh conditions, including invasive species such as bugs (which will thrive in warmer, more humid conditions). Public information campaigns about sustainable landscaping can expand this effort to residential homes with little effort or investment of County resources.



**Action P. 2 Implementation Considerations:**

- **Lead Agency:** Parks Department
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Coordinating department operations may present challenges.
- **Equity, Resilience, and Community Co-Benefits:** The protection and longevity of parks and green spaces will provide significant community co-benefits, enumerated below.

## Streets

The County's direct control over much of the physical environment in DeKalb County is best expressed in the rights of way (ROW) the County owns for residential and urban streets, and the roads and highways that connect activity centers. Transitioning to ZEVs is an important part of mitigating transportation sector emissions; while the County does not directly control the choices that individuals make for personal transportation, the County does have significant influence over the infrastructure that influences individual decisions. By providing useful, convenient, direct, predictable, and safe off-road infrastructure for the growing variety of personal mobility options – including walking and running, bicycling and scooters, and electric micromobility devices – the County can make major strides towards accomplishing this goal and significantly ease the transition for its residents. Taking these actions early can also enable community co-benefits, such as lower household costs for car payments and fuel, and reduced congestion, air pollution, noise, and other harms associated with cars and trucks.

Another important role the County plays in exercising its control over street ROWs is providing space for the development and protection of tree canopy. The County has substantial canopy coverage, but development, poor planting practices, and climate change are ever-present threats to this important green infrastructure.



### **Action S.1: County Active Transportation Master Plan**

This action includes the development of an Active Transportation Master Plan for the County. The plan would provide a vision for a connected network of off-road multi-use trails and protected on-road active transportation routes. Collectively, these routes would enable County residents to move safely and conveniently among and around the County's major activity centers without the need for a personal vehicle (i.e. pedestrian and bike paths). The plan should include a list of designated routes, assignment of responsibility for executing the plan, a system for collecting community input and prioritizing each step of the plan, a long-term implementation plan, and inputs for the County's Comprehensive Transportation Plan.

The Active Transportation Master Plan should seek to maximize access, convenience, and usability of the off-road multi-use and protected on-road active transportation route network. This means that routes should connect major residential areas, commercial centers, employment hubs, and transportation hubs, as well as any other major activity centers. Routes should be designed for ease of transportation, prioritizing directness, predictability, and convenience. The routes should seek to minimize unnecessary diversions, unprioritized road crossings, and especially gaps in the network.

The Master Plan should utilize existing routes, but seek to resolve gaps where they exist. For example, the South River Trail takes indirect paths where direct paths would improve the transportation value of the route, and in many cases the trail lacks connections to surrounding activity centers.

The Master Plan should also provide design solutions for adding protected active transportation lanes to important corridors. These could include design solutions for narrow, two-lane County roads (e.g., Columbia Rd, Peachcrest Rd, S Deshon Rd, Briarcliff Rd, etc.), multi-lane County roads (e.g., Panola Rd, Hairston Rd, N Decatur Rd, etc.), and State Highways (e.g., Candler Rd). By developing design guidance alongside peers from the Department of Public Works, future implementation projects can be accelerated by use of reference designs.

The Master Plan should explore unused right-of-way (ROW) opportunities, including potentially utility ROWs owned by Georgia Power, and unused margins of existing interstate highway ROWs owned by the state. Development of off-road multi-use paths along these ROWs could provide unique new direct paths between core activity centers without laborious road redesigns.

The Master Plan should include a methodology for engaging with community stakeholders to identify opportunities for local connections to the network. As identified in the DeKalb County Parks Master Plan, communities have expressed strong desire for additional passive recreation facilities – especially off-road trail networks; the stakeholder input collected for previous planning efforts should be folded into the development of the Master Plan.

**Action S.1 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, with significant support from the Department of Public Works and Recreation, Parks, and Cultural Affairs
- **Timeline:** 10 years
- **Cost:** High
- **Emissions Mitigation:** Very High (community only)
- **Implementation Barriers:** Community needs and network assessment to analyze needs of the community for increasing active transportation; consistent and frequent communication with stakeholders.
- **Equity, Resilience, and Community Co-Benefits:** Very high community benefits including significant new recreational asset, improved quality of living, reduced transportation costs, reduced air pollution, congestion, etc.



### **Action S.2: Incentives for Non-Road Commuters**

Implement an incentive program for County employees who commute using alternative transportation methods instead of driving. Examples could include:

- Subsidized public transportation passes or bike-sharing memberships
- Rewards for carpooling, such as designated or subsidized parking spaces closer to the workplace entrance which are reserved for employees who choose to share rides.
- Secure storage facilities (appropriate for a breadth of micromobility solutions from bicycles to scooters, e-bikes, and unicycles) to prevent bicycle theft, which is a common problem for micromobility users.
- Periodic county-organized challenges to encourage employees to embrace alternative commuting options, with prizes ranging from gift cards to extra paid time off.
- Federal law also allows for pre-tax commuter benefits, including up to \$315/month for qualified alternative transportation methods (including vanpooling, public transit, and even bicycling).

By fostering a culture that values and rewards sustainable transportation choices, the County not only contributes to environmental conservation efforts but also promotes employee well-being and community engagement.

#### **Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department
- **Timeline:** 5 years
- **Cost:** Medium
- **Emissions Mitigation:** Very Low to Low; while Scope 3 emissions are not necessarily part of the County's goals, the cost to the County for these incentives would be very low relative to the mitigation impacts and benefits to employees.
- **Implementation Barriers:** Possible contracting issues
- **Equity, Resilience, and Community Co-Benefits:** Enables County employees' greater choice in commuting options, including lower-cost options for low-income employees. **Equity, Resilience, and Community Co-Benefits:** Gives County employees more commuting options, including lower-cost options for low-income employees. Promotion of alternative transportation such as biking, walking, or running may have positive impacts upon County employee health and wellbeing.



### **Action S.3: Pilot Partnership for Use of Non-Road Utility Vehicles**

Explore partnerships with vendors of electric-assist pedalvans, cargocycles, and small electric cargo vehicles to launch a pilot program in DeKalb County. Many vendors (UPS, Westward, Alke, Electric Wheels, Yokler, Vok, Fernhay, etc.) are offering or adopting downscaled electric or electric-assist delivery vehicles that can utilize active transportation lanes as a means of bypassing congestion and improving the efficiency of last-mile delivery services. The unifying characteristic of these vehicles is that they use less space than a typical vehicle and can fit in smaller lanes, combined with electric or electric-assist pedal drives that significantly reduce air pollution associated with delivery trucks on residential streets. A partnership program with a vendor could lead to the development of a policy for allowing these types of vehicles to be used in active transportation lanes and multi-use paths, similar to the rules recently adopted in New York City.

**Action S.3 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department; significant assistance from Public Works Department, Transportation Division
- **Timeline:** 10 years
- **Cost:** Very Low
- **Implementation Barriers:** Labor costs associated with establishing relationships and setting up partnerships; potential cultural barriers.
- **Emissions Mitigation:** Very Low; the pilot program would focus on commercial delivery vehicles, not County fleet vehicles, thus mitigation would not affect County emissions; Community emissions impact is Low.
- **Equity, Resilience, and Community Co-Benefits:** Potential to mitigate community air pollution associated with heavy duty trucks in residential areas; improved traffic safety due to fewer trucks on the road; reduced noise.



**Action S.4:  
Update & Implement the DeKalb County Transit Master Plan**

In concert with Active Transportation Master Plan, the County should **update and implement the existing DeKalb County Transit Master Plan** to evaluate success, existing gaps, and possible areas of growth.

This would first include **an evaluation of current bus networks and usage**, using community surveys and outreach to gather feedback, population growth assessments to evaluate access to major population centers, and other tools at the County's disposal to evaluate the current state of public transit.

The Transportation Division and the Planning and Sustainability Department would then **evaluate the current plan and make changes and updates** according to the data gathered, along with an implementation plan.

**Action S.4 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department, Transportation Division
- **Timeline:** 10 years
- **Cost:** Medium
- **Emissions Mitigation:** Low (County), Medium (community)
- **Implementation Barriers:** Medium to High, depending on scale of updates.
- **Equity, Resilience, and Community Co-Benefits:** Significant community co-benefits if high level of public transit expansion is recommended; increased transit access for communities will boost transit equality; and reduced air pollution associated with fewer single-occupancy vehicles.



**Action S.5:  
Adopt a Complete Streets Policy**

The County Comprehensive Plan recommends the adoption of a Complete Streets policy, and this recommendation is reiterated here. The policy would revise the Code of Ordinances to include improved design guidance/requirements and encourage local, regional, and state agencies to incorporate the policy into any road projects they lead in the County. Critically, the proposed Complete Streets Policy in the Comprehensive Plan identifies exceptions for the inclusion of protected active transportation lanes on County roads, and these exceptions include broad language about “probable need/probable use,” especially relative to cost. It is essential that the County adopt a Policy that accounts for a vision of the County’s transportation system (see **Action S.1**) to encourage a much greater share of non-motor vehicle transportation; thus evaluation of “need” and “probable use” should not be backward-looking, but forward-looking measures based on the vision articulated in the Active Transportation Master Plan. The risk of using backward-looking metrics (e.g., historical use data) is that only a fragmented patchwork of active transportation infrastructure will be completed, depriving the County’s residents of a true alternative network for non-motor vehicles.

This action may be completed separately or as a part of **S.1: County Active Transportation Master Plan**.



**Action S.5 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability, with significant support from the Department of Public Works
- **Timeline:** 5 years
- **Cost:** Medium; planning efforts must address a wide variety of road types
- **Emissions Mitigation:** High; limited primarily to community emissions
- **Implementation Barriers:** Engineering, jurisdictional boundaries, possible scattered community opposition
- **Equity, Resilience, and Community Co-Benefits:** Very high community benefits, including significant new recreational asset, improved quality of living, reduced transportation costs, reduced air pollution, congestion, etc.
- 



**Action S.6:**

**County-Wide Urban Heat Island Effect (UHI) Mitigation Plan**

Develop a County-wide plan for addressing UHI with improved planning and infrastructure within the County ROW on County roads. The plan should include a vision, goals, strategy individual actions, and supporting metrics for determining where and when actions will be taken. The plan should provide both the Department of Public Works Transportation and Roads and Drainage Divisions' staff with the decision-making tools, example solutions, and long-term vision for achieving the plan's goals.

The UHI mitigation plan should include an assessment of existing exposure to UHI across the county and include a method for prioritizing interventions based on vulnerability to extreme heat and energy burden impacts. Additionally, the mitigation plan should utilize County staff expertise, remote sensing (including commercial products), and regular tree inventories to track the County's tree canopy, especially along County ROWs. This would involve identifying areas where canopy is in decline, especially potential hotspots that correlate with vulnerable populations. Producing annual reports tracking changes in tree canopy and providing input to regular County reports (such as the Comprehensive Land Use Plan) can assist with strategic planning to counter UHI effect within the county.

**Action S.6 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department, significant support from Public Works Department
- **Timeline:** 5 years (immediate)
- **Cost:** Low to Medium; cost of study is assumed to be low (<\$100k); cost of mitigation projects may range from Low to High, depending on intensity of effort
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Technical barriers are low, however new street design principles and practices, urban forestry practices, etc. impose training and transitional burdens on Public Works staff
- **Equity, Resilience, and Community Co-Benefits:** Very high community resilience and equity co-benefits; targeted UHI reduction will reduce acute health impacts of extreme heat, as well as reduce energy burden in communities; significant additional benefits associated with public health, mental health, safety, etc.



**Action S.7:  
Update Streets Design Guidance for UHI Mitigation**

Develop guidelines, standard designs, and an implementation plan for planting shade trees, stormwater bioswales, and other adaptive greenspace within the County ROW on County roads, as well as model designs for municipal streets in the cities and towns. Update the Tree Conservation and Protection guidelines to ensure protection of important canopy trees in high-priority communities (to be determined in **S.7x: County-Wide UHI Mitigation Plan**). Deploy new strategies for rapid growth of a long-term tree canopy. Identify opportunities to include stormwater protection (e.g., with detention basins or bioswales) where needed.

**Action S.7 Implementation Considerations:**

- **Lead Agency:** Planning and Sustainability Department, significant support from Public Works Department
- **Timeline:** Updated guidance, 5 years (immediate); rollout over 25 years (long-term)
- **Cost:** Low (assuming street upgrades are rolled out over time as part of regular street maintenance)
- **Emissions Mitigation:** Very Low (direct County emissions impacts); likely Low community emissions impacts from reduced cooling burden
- **Implementation Barriers:** Technical barriers are low, however new street design principles and practices, urban forestry practices, etc. impose training and transitional burdens on Public Works staff; potential community barriers where public space is transitioned from paved to green space
- **Equity, Resilience, and Community Co-Benefits:** Very high community resilience and equity co-benefits; targeted UHI reduction will reduce acute health impacts of extreme heat, as well as reduce energy burden in communities; significant additional benefits associated with public health, mental health, safety, etc.

## Waste & Water



**Action W.1:**

**Implement the Water and Wastewater Master Plan and Support Capital Improvement Plan**

Implementation of the DeKalb County Water/Wastewater Master Plan will address numerous constraints on both water supply and wastewater removal that threaten to impair the system's efficiency and sustainability over the long term.

**Action W.1 Implementation Considerations:**

- **Lead Agency:** Watershed management
- **Timeline:** 5 - 20 years
- **Cost:** High
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Electrification of components that are not yet commercially available.
- **Equity, Resilience, and Community Co-Benefits:** Resilience is key benefit, ensuring the system is capable of providing water supplies through the planning period. Assessment of vulnerabilities in wastewater systems which disproportionately affect vulnerable communities ought to be considered for maximum equity impact.



## **Action W.2: Monitor and Mitigate Fugitive Methane Emissions**

Minimize leaks of anaerobic decomposition gases (primarily methane) at AWWTPs to reduce release of potent GHGs and hazardous VOCs. Review entire system to identify potential opportunities for uncontrolled anaerobic decomposition in sewer trunk lines, within plant, and in plant outputs (e.g., incl. biosolids). Design and implement a program of leak detection and repair (LDAR) consistent with best practices in the wastewater treatment sector.

### **Action W.2 Implementation Considerations:**

- **Lead Agency:** Watershed Management
- **Timeline:** 5-10 years
- **Cost:** Low
- **Emissions Mitigation:** Low to moderate, depending on existing leaks
- **Emissions Mitigation:** Low to Medium, depending on existing leaks
- **Implementation Barriers:** Workforce, technical training, engineering
- **Equity, Resilience, and Community Co-Benefits:** Reduced emissions of fugitive decomposition gases will benefit nearby residents that may be exposed to unwanted VOCs.
- **Equity, Resilience, and Community Co-Benefits:**



## **Action W.3: Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)**

Conduct energy audit at Snapfinger and Pole Bridge AWWTPs (to be conducted in collaboration with the Facilities Department executing **Action B.3**). Review processes, systems, and equipment for energy waste and efficiency gaps, identify outdated equipment (and replacement options), and evaluate plant processes to identify potential alternatives with energy (and emissions) savings potential. Establish process for recurring review every five years.

Historically, Pole Bridge AWWTP has used significantly more energy than Snapfinger or other WWTPs on a per-gallon basis of treated water; the district should identify if this is still the case, evaluate opportunities to improve energy efficiency, and prioritize capital improvements necessary to achieve these improvements.

**Action W.3 Implementation Considerations:**

- **Lead Agency:** Watershed management, with support from Facilities Department
- **Timeline:** 5 – 10 years
- **Cost:** Medium, depending on scope of necessary upgrades
- **Emissions Mitigation:** Medium, the County's water system is a major source of emissions.
- **Implementation Barriers:** Communication and cross-departmental coordination to get buy-in from County, community members. Measuring information campaign effectiveness also poses challenges.
- **Equity, Resilience, and Community Co-Benefits:** Potential energy savings may be redirected through County budget to better serve LIDAC communities.



**Action W.4:  
Electrify and Modernize Equipment**

In support of **W.1** and **W.3**, identify and replace any obsolete equipment (including pumps or prime movers) with modern electric pumps and variable frequency drive units.

**Action W.4 Implementation Considerations:**

- **Lead Agency:** Watershed management and Facilities
- **Timeline:** 5 – 15 years
- **Cost:** Moderate, depending on scope
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Engineering, workforce
- **Equity, Resilience, and Community Co-Benefits:** N/A



**Action W.5:  
Promote Water Use Efficiency**

Conduct an information campaign to inform customers of the connection between water use and energy waste/GHG emissions to promote best practices and technologies for water use efficiency. Solutions for residential customers may include checking appliances and repairing leaks, installing low-flow shower heads or flow restrictors, only using appliances such as washing machines for full loads, replacing water-hungry lawns with drought-tolerant plants, and using mulch and other water-conservation gardening practices. Commercial customers may benefit from targeted water audits to identify and mitigate major water waste sinks.



**Action W.5 Implementation Considerations:**

- **Lead Agency:** Watershed Management
- **Timeline:** 5 years
- **Cost:** Low
- **Emissions Mitigation:** Low
- **Implementation Barriers:** Outreach and education to communities who do not typically interact with county initiatives.
- **Equity, Resilience, and Community Co-Benefits:** More efficient water use will create cost savings that will especially benefit low-income households; improved water conservation offers additional resilience to water scarcity.



**Action W.6:**

**Evaluate Sewer and Stormwater System Sufficiency under Climate**

**Scenarios**

Conduct a hydraulic analysis of stormwater loading under projected precipitation and runoff regimes in climate change scenarios. Evaluate the sufficiency of the current system and identify areas of potential backups, overflow, or flooding. Consider projected changes to precipitation patterns in 2050 and 2100, including both a lower- and higher-emissions scenario. Conduct hydraulic modeling of the major floodplains in the County wherever single-event precipitation totals are projected to increase.

It should be noted that this action is considered low-priority, for implementation in the long term (10+ years) to prioritize more impactful measures.

**Action W. 6 Implementation Considerations:**

- **Lead Agency:** Watershed Management, with support from Planning and Sustainability
- **Timeline:** 10+ year start date, 5 year implementation
- **Cost:** Moderate, climate impact evaluation is not costly, but hydraulic modeling can be
- **Emissions Mitigation:** N/A, no emissions benefits
- **Implementation Barriers:** Long-term uncertainty, insufficient data on existing conditions
- **Equity, Resilience, and Community Co-Benefits:** Primary benefit is enabling improved resilience by anticipating future flood risks. Informing residents of their flood risk and producing valuable public service announcements may be pivotal to community resilience in the event of an emergency.

## Timeline

### *Present-2030*

A.1: Evaluate and Reduce Non-Essential Airport, Aircraft Energy Use

B.1: Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings

B.2: Adopt Enhanced Energy Efficiency Requirements for New County Buildings

B.3: Retrofit Existing Buildings to High Energy Efficiency Standards

B.4: Add Dedicated Staff for Facilities Transformation

F.1: Fleet Efficiency Optimization

L.1: Integrate Carbon Mitigation into Unified Plan [integration at next Unified Plan update]

L.3: Minimum Tree Canopy

MSW.1: Promote Waste Reduction in County Departments and Targeted Community Sectors

MSW.2: Extend Recycling Collection and Enhance Waste Reduction Efforts in County Departments and Community MSW

MSW.5: Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations (begin)

P.1: Expand Green Spaces and Urban Tree Cover in DeKalb County (begin)

P.2: Improve Park Resilience and Mitigation Potential (begin)

S.2: Incentives for Non-Road Commuters

S.5: Adopt a Complete Streets Policy

S.6: County-Wide Urban Heat Island Effect (UHI) Mitigation Plan

S.7: Update Streets Design Guidance for UHI Mitigation (begin)

W.5: Promote Water Use Efficiency

## 2030-2040

A.2: Future Planning, Resilience, and Energy Transition Preparation

B.1: Invest in 'No-Regrets' Efficiency Improvements in Existing County Buildings

B.2: Adopt Enhanced Energy Efficiency Requirements for New County Buildings

B.3: Retrofit Existing Buildings to High Energy Efficiency Standards

F.2: Infrastructure and Operations Expansion

L.2: Clean Energy and Microgrid Zoning Incentives

MSW.3: Launch Organic Waste Collection and Composting for All Sanitation Customers

MSW.4: Maximize Recycling of Concrete and Asphalt Aggregates in Public Works Projects

MSW.5: Minimize Fugitive Landfill Gas (LFG) Emissions Across MSW Operations (complete)

P.1: Expand Green Spaces and Urban Tree Cover in DeKalb County (complete)

P.2: Improve Park Resilience and Mitigation Potential (complete)

S.1: County Active Transportation Master Plan

S.3: Pilot Partnership for Use of Non-Road Utility Vehicles

S.4: EV Charging Network Master Plan (implementation complete)

W.2: Monitor and Mitigate Fugitive Methane Emissions

W.3: Optimize Energy Efficiency of Advanced Wastewater Treatment Plants (AWWTPs)

W.4: Electrify and Modernize Equipment

## 2040-2050

B.5: Acquire 100% Renewable Electricity and Ensure New Building Electrification

F.3: Full Fleet Conversion to Electric Vehicles

L.1: Integrate Carbon Mitigation into Unified Plan (implementation complete)

MSW.6: Onsite Solar Generation at Seminole Rd. Landfill

S.7: Update Streets Design Guidance for UHI Mitigation (implementation complete)

W.1: Implement the Water and Wastewater Master Plan and Support Capital Improvement Plan

W.6: Evaluate Sewer and Stormwater System Sufficiency under Climate Change Scenarios

DeKalb County Emissions by Sector - Annual

Year	Agriculture	Residential	Commercial	Industrial	Transportation	Forestry	Total Emissions
2005	219.7216185	3122811.525	1573232.419	1444244.066	3483223.019	-67775.31417	10996149.67
2006	211.8278258	3240972.567	1622880.786	1398666.153	3737922.193	-68486.07865	11311032.74
2007	200.9452024	3391060.053	1585813.353	1436816.787	3736673.021	-68865.10309	11579162.89
2008	176.9617851	3380529.602	1739335.024	1414652.033	3486327.004	-69346.69063	11303923.88
2009	170.2889328	3041652.688	1995482.523	1163052.867	3344083.958	-69781.20238	10284881.12
2010	151.6816979	3273807.793	2011022.782	1153660.311	3390794.893	-70091.49906	10645965.51
2011	134.8337551	2992874.162	2099007.916	1113557.989	3269676.615	-71837.00427	10011769.62
2012	131.3220937	2217735.341	2090981.773	971279.8847	3136281.737	-74150.37959	8526315.013
2013	130.7217721	2302354.149	2267623.912	968416.4117	3114699.461	-75954.91941	8517121.383
2014	134.0304504	2555925.867	2309850.751	1031970.339	3257372.029	-78082.84349	9106841.805
2015	134.4848085	2386487.206	2278065.124	1020710.038	3747670.376	-80335.6595	9245542.337
2016	136.7121782	2433743.826	2526179.226	974095.4992	3950151.002	-78886.10669	9410699.071
2017	136.3922199	2058373.327	2820317.547	931855.7824	4002243.019	-74663.69532	8917526.127
2018	134.4779768	2280977.7	2861286.734	916663.5784	3975772.718	-70724.05094	9141260.206
2019	131.5444535	2157225.727	2966928.766	863890.3431	3994525.387	-66506.62485	8823088.827
2020	131.2593668	1892835.974	3106332.769	794558.3224	3720949.774	-66606.14018	7859890.478
2021	131.9690629	2011019.928	3069107.297	836839.248	4145289.165	-66701.37206	8535949.053
2022	132.4342381	2093910.581	3012469.214	804869.6724	4320408.277	-66792.3039	8787366.001



Month & Year	Agriculture	Residential	Commercial	Industrial	Transportation	Forestry	Total Emissions
Dec-22	2.943525008	247188.3863	240916.0031	66581.66856	337747.5885	-1329.918442	807281.1367
Nov-22	5.390666671	159574.8863	254865.7024	63926.92948	354093.2396	-2611.706501	700897.1882
Oct-22	10.47891045	120667.4295	276375.3922	63733.53434	376922.6349	-5269.010206	669274.742
Sep-22	16.55857078	135551.062	280889.5996	65222.27914	386023.4294	-8460.814466	706818.6267
Aug-22	20.67371546	173136.0143	269420.9461	71075.32271	397432.6221	-10601.34986	780632.9305
Jul-22	21.08924768	188332.3666	258505.2086	71435.4124	355394.9924	-10838.202	759002.6406
Jun-22	18.65110568	174239.0201	239680.1015	71072.67471	365380.413	-9545.014643	751030.5316
May-22	14.95621791	127054.0928	256453.3781	66173.34552	364347.1591	-7615.999608	671381.7274
Apr-22	9.711551742	116702.4043	239676.1254	62757.8887	339506.8097	-4870.034674	620819.2941
Mar-22	6.301993522	158892.7461	236883.2894	66184.71689	373007.6572	-3074.011483	722537.276
Feb-22	3.237618444	208430.6979	242412.7468	66401.84239	332723.905	-1498.374777	740684.6184
Jan-22	2.44111472	284141.475	216390.7208	70304.05758	337827.8265	-1077.867232	857005.2885
Dec-21	2.934907617	159008.2583	226912	60951.19943	350475.532	-1328.107875	679738.395
Nov-21	5.373743757	159203.8918	255891.5108	62892.06274	348822.4116	-2608.150893	679680.4411
Oct-21	10.44476917	113645.4927	282644.7196	65936.2479	358512.0383	-5261.836913	643418.8071
Sep-21	16.50374776	155250.6472	298212.5067	74618.3928	345330.8217	-8449.295812	713626.3551
Aug-21	20.60502254	201014.5517	274412.6513	81299.78558	372218.6308	-10586.91706	820267.6267
Jul-21	21.01902005	190232.7277	251487.9434	79868.81602	340858.8975	-10823.44675	766468.4356
Jun-21	18.58925744	162074.7103	233883.44	77128.63714	356136.988	-9532.019946	736249.7548
May-21	14.90686898	117103.2522	242938.4276	67333.37935	357803.8407	-7605.631095	650404.1089
Apr-21	9.679995677	112725.0542	256026.4672	63047.39736	348532.7452	-4863.40455	622792.4012
Mar-21	6.270597902	147760.7003	254179.6812	64570.47816	353740.3993	-3069.826487	676947.9997
Feb-21	3.214167156	246236.0061	256505.4162	73268.64257	298351.7399	-1496.334872	775126.0486
Jan-21	2.42696487	246764.6353	236012.5326	65924.20896	314505.1201	-1076.399811	771228.6792
Dec-20	2.911015063	244268.9749	244375.903	69295.96416	342306.7559	-1326.211689	805987.0174
Nov-20	5.332195661	135103.336	264460.4366	65514.60804	314462.0414	-2604.427145	626318.7334
Oct-20	10.40581806	109362.9803	272205.6326	66881.41217	341010.9449	-5254.324405	625058.9946
Sep-20	16.4380882	150406.7334	289965.7043	72580.04198	326226.0545	-8437.232458	681141.3887
Aug-20	20.50688171	197010.6967	284472.9238	79032.50996	340974.8925	-10571.80175	774273.2103
Jul-20	20.96156828	190084.4988	244383.4096	73885.30336	326715.1639	-10807.99373	744831.5969
Jun-20	18.48561945	137225.0827	239612.2516	65884.98979	304352.0615	-9518.410749	619032.4396
May-20	14.80749635	104786.8396	241076.8297	58318.63488	277600.9016	-7594.772271	525303.6944
Apr-20	9.592064754	100313.3534	268756.7395	56513.52154	231393.9236	-4856.460898	467967.2758
Mar-20	6.219253205	136011.6856	262698.7181	63310.4844	301812.192	-3065.443589	611585.1886

Feb-20	3.182420762	185419.1124	254139.7921	60622.21456	297823.2362	-1494.198503	664723.446
Jan-20	2.416945279	202842.6804	240184.4279	62718.63752	316271.6064	-1074.862997	713667.4919
Dec-19	2.92827546	200966.4989	253492.5818	64526.6091	319928.1145	-1324.230214	724516.3556
Nov-19	5.391891498	169475.4718	268583.1699	65815.16024	319583.6297	-2600.535905	687235.713
Oct-19	10.43418458	133637.5836	284611.4245	69475.04551	345784.0935	-5246.47399	683735.6648
Sep-19	16.42707332	190647.3723	280427.0607	77262.75806	326329.1212	-8424.626502	764410.4666
Aug-19	20.51260747	196263.3266	270612.4653	77890.92868	358191.7911	-10556.00656	802615.9389
Jul-19	20.93763612	216065.1089	234538.8632	78824.01123	327190.8065	-10791.84566	800680.0801
Jun-19	18.47576883	163714.9742	230218.8445	74315.1185	330431.7622	-9504.18942	718438.6599
May-19	14.86708729	151604.0439	243320.8796	77407.07681	359350.3885	-7583.425024	743101.2724
Apr-19	9.660890293	118541.5906	257669.9407	68612.88183	340950.7612	-4849.204925	649218.4618
Mar-19	6.197471663	177190.1816	226031.5959	71447.99216	336416.6598	-3060.863551	731120.889
Feb-19	3.235363606	180653.8282	211573.4879	66437.19742	303971.3322	-1491.966041	687168.741
Jan-19	2.476203327	258465.7466	205848.4522	71875.56356	326396.9265	-1073.257059	830846.5841
Dec-18	3.114375996	236737.9461	235025.0865	70962.95093	325331.1671	-1408.20445	797742.8521
Nov-18	5.556044501	200391.6634	253993.3183	75963.12949	316042.3744	-2765.445311	758742.5089
Oct-18	10.67939608	150121.5836	262595.3953	78454.14122	348429.4891	-5579.171917	734354.6639
Sep-18	16.68289953	190306.8145	260932.4234	83100.45801	329624.1672	-8958.862598	790277.9468
Aug-18	20.80173541	188731.1161	237707.4049	82142.75414	360916.7047	-11225.40119	810137.1507
Jul-18	21.23209027	191855.1213	226289.5959	80938.97769	333946.1075	-11476.1957	780985.6497
Jun-18	18.75554652	178762.5824	189732.6291	80688.73788	339181.8462	-10106.88451	770610.2408
May-18	15.13247982	132295.0775	238303.1876	76971.52289	343216.0529	-8064.317485	700423.732
Apr-18	9.879899583	125914.7719	269913.5948	69071.48135	327614.2189	-5156.710582	646838.8478
Mar-18	6.498849025	171351.5981	238049.3592	70180.53877	342908.8974	-3254.964001	723770.4019
Feb-18	3.416213885	168464.8035	234599.6806	69907.11963	291525.0312	-1586.577014	669704.2586
Jan-18	2.7284462	346044.6214	214145.0584	78281.76636	317036.661	-1141.316178	957671.9523
Dec-17	3.069312869	238189.5872	229227.2782	74284.30328	333877.2726	-1486.647705	819925.4506
Nov-17	5.5912926	150714.3573	254285.9545	70190.57133	324113.0776	-2919.492922	685109.5626
Oct-17	10.8549746	145660.8049	272024.2136	77251.79175	356281.8823	-5889.956623	735559.9671
Sep-17	17.00840427	159373.9823	273813.7216	78881.21454	334310.6917	-9457.911115	737207.2202
Aug-17	21.23634636	192450.6503	246858.7461	84071.95809	367192.7549	-11850.70599	824761.531
Jul-17	21.63989026	199649.3668	206672.5977	83090.86792	326086.9812	-12115.47087	792393.1044
Jun-17	19.13180316	163655.7959	197218.093	81462.3679	340371.7043	-10669.88296	749688.1968
May-17	15.39581091	137898.217	260834.0283	79356.75874	341875.6698	-8513.535858	713079.7067
Apr-17	9.984560828	130893.5764	260050.0594	79150.08646	327989.5076	-5443.962311	687060.1194

Mar-17	6.527242	167892.7307	203681.5018	78103.92489	345019.9966	-3436.279981	747914.8786
Feb-17	3.374210706	154293.9823	209441.0833	69836.03372	296702.8916	-1674.956415	655330.4664
Jan-17	2.578371331	217700.2757	206210.27	76175.90378	308420.5885	-1204.892569	769495.9236
Dec-16	3.121540375	240459.4317	237603.956	76099.51167	320732.5529	-1570.721205	808379.7094
Nov-16	5.622507772	156201.5772	252167.1584	74723.76828	305817.2965	-3084.597262	682692.4684
Oct-16	10.82483931	150504.7075	267439.3033	80724.63423	334369.2099	-6223.047822	722720.1755
Sep-16	17.00802708	208599.0399	267293.3496	84929.91237	314631.5895	-9992.778714	796339.8147
Aug-16	21.22567762	244852.4345	229678.4663	91382.94181	344476.1342	-12520.89189	886865.9026
Jul-16	21.63349032	255286.9813	193367.4534	89431.46444	335172.293	-12800.62986	886346.0116
Jun-16	19.15663789	203965.8979	180044.5243	87224.85813	351494.9686	-11273.29048	826564.8308
May-16	15.39538179	146380.0505	200385.8952	82550.83899	347200.4169	-8994.996768	730605.033
Apr-16	10.03565716	123836.1017	186759.9639	73723.80499	328973.3156	-5751.831461	656004.4994
Mar-16	6.595806481	158446.0631	172026.149	77278.65424	342920.4356	-3630.609871	726848.2984
Feb-16	3.446283088	250894.3669	168733.0691	77938.1287	313978.2963	-1769.679224	816100.464
Jan-16	2.646329287	294317.1739	170679.9378	78086.98133	310384.4932	-1273.032139	871231.8635
Dec-15	2.994948234	159076.3511	197333.6565	70892.01298	321373.9853	-1599.583617	687097.0022
Nov-15	5.477437785	138584.078	207078.4919	71968.58729	303372.9546	-3141.277542	645260.392
Oct-15	10.65532176	137516.3717	231640.2954	82314.89421	323727.3804	-6337.39795	695602.8676
Sep-15	16.81261549	181796.2839	219058.0644	89723.50046	310862.0343	-10176.39863	764362.6808
Aug-15	20.96601882	230622.5092	203597.7085	94416.46156	333259.9473	-12750.96655	860774.5933
Jul-15	21.42659951	240059.6809	180953.0528	94982.02578	315783.3295	-13035.84477	857339.3703
Jun-15	18.89937437	198107.1167	171508.7836	92066.77526	316931.9264	-11480.44013	793879.1281
May-15	15.18054165	156474.0237	165667.9354	90132.90341	319986.253	-9160.282181	741317.6084
Apr-15	9.860947337	129965.8571	183994.9836	82233.0633	309083.4534	-5857.522865	671984.6701
Mar-15	6.389206742	192020.7884	173869.0531	81571.85455	313217.5522	-3697.323275	749124.8219
Feb-15	3.307692934	319268.5957	191592.7179	87109.28922	282799.4826	-1802.197542	896541.7516
Jan-15	2.514103912	302995.5499	151770.381	83298.66993	297272.077	-1296.424436	882257.4509
Dec-14	3.070635385	224108.6443	165442.6915	76023.55426	280883.8919	-1554.727228	752918.7937
Nov-14	5.51249258	206674.8132	204220.1517	78273.68674	262550.2123	-3053.188138	716626.3317
Oct-14	10.64451701	135967.2437	203522.7777	81108.81939	288936.0337	-6159.68121	662420.9001
Sep-14	16.69812839	188548.8022	207990.2022	89262.78095	266799.5661	-9891.026558	732923.4075
Aug-14	20.81328515	214659.5861	196800.1221	93106.65035	289108.774	-12393.39705	801232.3678
Jul-14	21.26578565	224171.3617	172641.8677	96122.01554	270431.2242	-12670.28657	800040.2094
Jun-14	18.77191792	197306.2184	169713.7357	92713.34698	275769.2227	-11158.49942	765110.9568
May-14	15.11766927	147473.7623	185916.8754	87048.49529	288487.464	-8903.404595	694510.9418

Apr-14	9.810566084	142479.4917	243855.5522	82444.35063	266862.9416	-5693.263041	650692.176
Mar-14	6.396188223	211172.7744	212056.2761	82872.39612	272862.5977	-3593.640937	746422.1781
Feb-14	3.339643032	284651.8233	183101.6545	85558.74196	236506.9022	-1751.659344	817025.4238
Jan-14	2.589621728	378711.3457	164588.8446	87435.50087	258173.199	-1260.069401	966918.1181
Dec-13	2.943469948	249078.2863	180389.5072	76616.39732	266875.1338	-1512.357594	776977.2786
Nov-13	5.34400506	188594.0614	210461.8963	78190.13255	256287.622	-2969.982247	689820.9134
Oct-13	10.37059748	142689.7873	221964.6287	82191.63274	272287.3032	-5991.816755	663829.1447
Sep-13	16.30546665	181396.2065	216729.9411	84007.04813	260639.4948	-9621.474981	713237.702
Aug-13	20.34344631	201367.1698	198186.5867	88452.82413	274940.0656	-12055.65054	760714.9547
Jul-13	20.77587847	194349.4342	162557.8399	86436.32722	247535.9455	-12324.99422	719540.2663
Jun-13	18.34828007	186289.2767	172175.2951	87626.19386	257945.4704	-10854.40651	725245.0345
May-13	14.76344356	132673.7035	173454.3598	79216.6025	271060.9869	-8660.767824	639747.98
Apr-13	9.603096289	135070.3603	199985.0644	74534.99043	259166.5426	-5538.109476	615013.7679
Mar-13	6.234510907	229878.7288	209163.274	80873.15215	267111.4131	-3495.706554	765966.5399
Feb-13	3.214563461	226104.4406	166005.5609	73055.89315	233911.7123	-1703.92289	705240.3907
Jan-13	2.475013903	234862.694	156549.9582	77215.2175	246937.7705	-1225.729822	741787.4108
Dec-12	2.909865107	196676.9384	183869.5299	69586.23924	252196.9616	-1476.426946	682654.5576
Nov-12	5.370270246	172515.4128	198234.8505	72476.42483	253090.6608	-2899.421298	666697.2311
Oct-12	10.42486357	143899.9236	219528.7524	81180.14562	274230.8353	-5849.462948	674424.9192
Sep-12	16.38627977	185127.6241	215205.6758	83610.46566	254869.7893	-9392.887618	717829.0862
Aug-12	20.46552762	214195.156	192140.4482	89053.42515	279434.5971	-11769.23194	789992.4763
Jul-12	20.87634769	244076.6338	158370.9639	90007.48389	253912.3649	-12032.17655	807625.4778
Jun-12	18.45002145	186313.7186	134470.5722	85042.67476	267902.5419	-10596.52711	735759.35
May-12	14.83843135	158258.0258	137351.2415	87469.24527	274960.2083	-8455.004977	709580.9693
Apr-12	9.630867116	133031.2374	189713.6008	79802.93868	257391.8119	-5406.534864	635509.0217
Mar-12	6.25564481	152823.0283	175055.9049	81781.19582	270289.7534	-3412.655427	670220.6467
Feb-12	3.242961609	193190.1749	151827.1596	76217.15385	248942.5441	-1663.441026	688715.8238
Jan-12	2.471013368	237627.467	135213.0729	75052.49194	249059.6681	-1196.608887	747305.4531
Dec-11	3.05641374	245434.4071	163453.3279	80541.02049	274510.58	-1430.364745	799444.5944
Nov-11	5.536146716	179025.6262	195133.2399	78304.42718	266000.106	-2808.96391	700571.2559
Oct-11	10.66978661	165451.5416	219234.2693	85197.39977	275834.3178	-5666.968896	714194.4134
Sep-11	16.79694196	233065.0603	218654.0582	92381.14051	273410.6539	-9099.844285	819452.2736
Aug-11	20.96810512	302916.2866	198155.0437	101461.2119	297444.3085	-11402.0504	957734.0742
Jul-11	21.3572561	303629.1343	163333.8468	100889.4986	259195.0443	-11656.79155	919517.5462
Jun-11	18.90864544	265996.2129	149028.8011	99583.67134	275993.3244	-10265.93212	883493.3435

May-11	15.21174878	198522.2174	172655.8128	104367.6415	282204.6856	-8191.222109	814522.4902
Apr-11	9.906966324	173924.7354	168401.4698	93989.21207	274110.5702	-5237.859473	743006.8351
Mar-11	6.472335313	217073.2852	136169.141	95927.22237	281911.6588	-3306.18594	801053.5361
Feb-11	3.379271443	283225.2036	160327.9791	87892.31712	255507.4688	-1611.54428	828698.3263
Jan-11	2.570137575	424610.4516	154460.9267	93023.22649	253553.8968	-1159.27657	1030080.928
Dec-10	3.492751434	372815.6549	162447.2013	92067.1603	287236.8268	-1395.60955	1011561.553
Nov-10	6.242803183	187567.8894	174849.0799	87259.1754	272596.5243	-2740.711326	741907.2136
Oct-10	11.98444517	173022.1462	195659.7195	91712.39882	283154.1016	-5529.272122	749043.9567
Sep-10	18.85403281	252102.8014	192875.6373	98618.083	280969.775	-8878.735042	869689.5244
Aug-10	23.47300689	305599.524	174082.2344	104657.2502	294647.2012	-11125.00184	967616.1682
Jul-10	23.98335745	308039.5233	162244.5898	102281.5792	278630.289	-11373.55326	949626.0352
Jun-10	21.26058773	256616.6252	143005.458	100326.7103	293704.6859	-10016.48911	894938.7473
May-10	17.08171568	183055.9578	175057.8659	101143.8424	294667.0927	-7992.19069	800119.0621
Apr-10	11.17975478	178761.9173	217447.4913	96763.95725	284408.0399	-5110.589257	768979.5634
Mar-10	7.335472073	288498.2096	141390.4651	96720.07335	293794.0822	-3225.851789	910393.5294
Feb-10	3.823956867	346595.0552	142577.8327	89609.91341	256968.592	-1572.38676	929654.357
Jan-10	2.969813857	421132.4888	129385.2064	92500.16743	270017.6828	-1131.108312	1052435.795
Dec-09	4.145759661	330253.1634	155990.2637	90823.96139	284772.7847	-1389.431155	942767.8116
Nov-09	7.142153312	187539.5638	182065.2033	87367.8401	264172.064	-2728.578134	726090.6611
Oct-09	13.49179567	200716.7099	185700.4068	100969.4424	281490.8506	-5504.793907	803975.2967
Sep-09	21.02456189	227949.0805	189551.1751	100607.0393	274926.4132	-8839.428678	832371.5338
Aug-09	26.14539627	281456.5097	196188.6868	106421.9718	291726.02	-11075.7512	929487.3191
Jul-09	26.7065875	301219.5225	162917.9425	102986.8506	278623.4902	-11323.20228	934128.7629
Jun-09	23.64361503	248126.033	169105.2308	101145.0782	291091.9395	-9972.145886	884407.8668
May-09	19.0481519	194937.8569	166115.8781	101060.9831	285285.4872	-7956.809078	808371.6528
Apr-09	12.56088452	182704.7227	175179.1283	90181.57919	280475.9014	-5087.964561	754135.2518
Mar-09	8.336148975	233168.5329	137595.1139	91203.55753	283450.1287	-3211.570869	816192.4723
Feb-09	4.518348053	298495.4073	149120.7215	92905.95858	257960.294	-1565.425767	873832.3483
Jan-09	3.525530032	355085.5852	125952.7723	97378.60425	270108.5845	-1126.100869	979120.1393
Dec-08	3.942678937	322032.889	162308.3211	97503.35122	284266.8225	-1380.779481	945747.1055
Nov-08	7.180562915	250075.6625	159462.5186	105538.3431	268842.9013	-2711.587896	851971.3441
Oct-08	14.01113237	210184.4637	189371.0615	117192.4828	300612.5609	-5470.516802	857071.8649
Sep-08	22.05759663	268686.828	180805.3864	122572.2572	271795.5997	-8784.387557	924904.8202
Aug-08	27.4893593	306600.1918	178579.4145	124807.3134	297842.1834	-11006.78501	998697.4536
Jul-08	28.08221167	314288.9199	140074.9821	125711.1344	279319.6017	-11252.69526	992706.4674



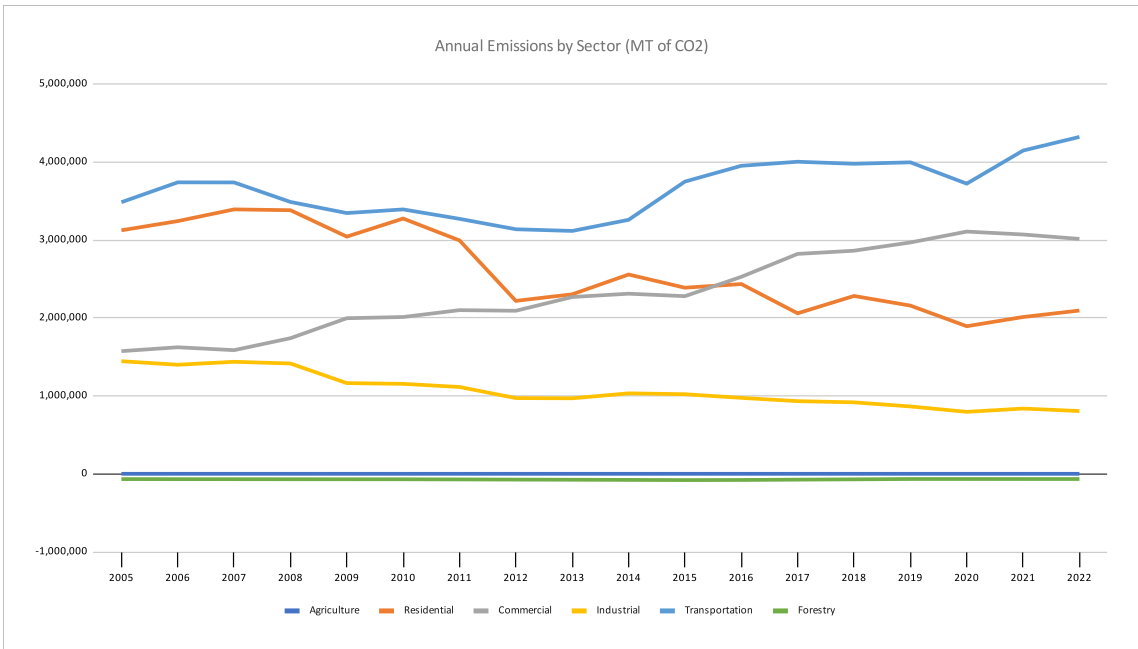
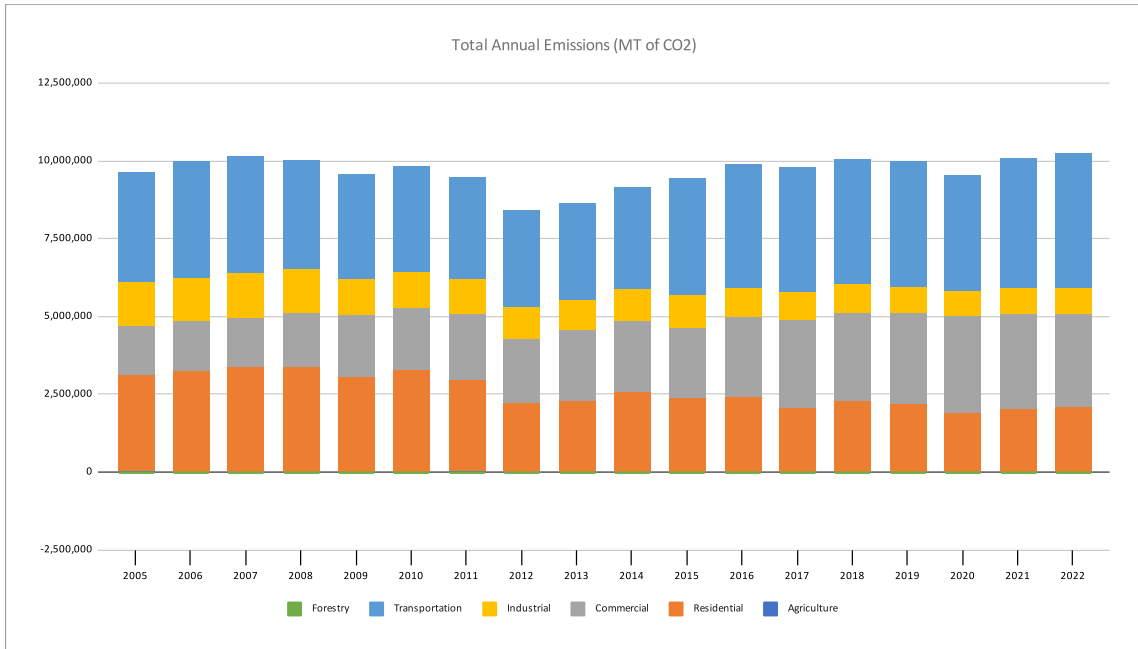
Jun-08	24.83429685	284406.0684	134956.5953	122087.6819	292301.7552	-9910.051591	957493.458
May-08	19.98169283	212385.2557	140416.4351	125822.3079	298923.4761	-7907.263829	882736.3394
Apr-08	13.02569966	211458.7992	132907.0136	122204.5847	291084.9331	-5056.282958	859889.4876
Mar-08	8.477321167	273598.0113	122349.899	122106.7885	311737.5188	-3191.573144	958399.0148
Feb-08	4.441038795	329883.0512	113510.0509	115366.3251	290619.3283	-1555.678216	997016.1855
Jan-08	3.43819394	396929.4615	84593.34601	113739.4627	298980.3234	-1119.088894	1077290.336
Dec-07	4.770045712	294498.024	92177.28307	113822.2274	297813.3166	-1371.19047	945843.9773
Nov-07	8.425749967	242913.8964	121070.2308	115004.9136	292237.858	-2692.756904	887084.5885
Oct-07	15.94049423	221029.5869	164933.663	119984.6198	318298.4321	-5432.526052	898279.4628
Sep-07	24.86328334	300486.906	167806.406	124764.3821	312006.2217	-8723.38318	1013031.914
Aug-07	30.86825455	340613.4373	140349.3531	124184.9374	338454.279	-10930.34689	1082318.879
Jul-07	31.38970745	298272.6355	113047.5759	122943.327	300670.1437	-11174.54938	982948.5791
Jun-07	27.84100265	275686.5852	113837.8429	120957.7932	317916.0675	-9841.229887	969207.4937
May-07	22.57515017	212915.5647	151438.6231	123945.1765	331760.3911	-7852.350758	905167.2597
Apr-07	14.81139739	220962.1224	145108.6877	118560.1392	309388.9094	-5021.168911	879917.346
Mar-07	9.893815596	266102.4079	158762.7807	125452.1748	325544.3621	-3169.408829	970444.8461
Feb-07	5.318190805	363556.6428	113939.9778	114347.9348	290301.7065	-1544.874596	1020846.409
Jan-07	4.24811054	354022.2438	103340.9291	112849.1611	302281.3335	-1111.317228	1024072.136
Dec-06	5.285930715	300077.4737	115754.3609	106069.7506	309113.0259	-1363.643619	956840.3201
Nov-06	9.074856089	236817.4189	150422.85	103827.8625	296818.4705	-2677.936325	868678.3304
Oct-06	16.85220375	224544.4616	166310.4222	118778.2273	317498.0637	-5402.626146	906922.9221
Sep-06	25.92324475	282548.8845	176300.9707	119403.1809	304554.441	-8675.37083	972269.7101
Aug-06	32.26967124	334242.0341	146859.2855	125808.9876	335512.7519	-10870.1877	1082938.362
Jul-06	32.84478519	316460.0989	110576.4203	121158.9046	301812.0581	-11113.04614	1010995.58
Jun-06	29.21382065	263784.4457	111364.8521	117695.5423	319346.6231	-9787.065057	946960.2707
May-06	23.70068729	196643.8318	110628.5783	122453.0545	326147.0487	-7809.132456	864370.5033
Apr-06	15.63064512	191226.5386	165807.3556	113621.4299	315061.25	-4993.53306	831322.0369
Mar-06	10.61408392	264121.1263	134623.3102	122169.2889	331230.2461	-3151.964821	956792.0572
Feb-06	5.767828225	311837.5756	127519.8653	115628.3606	287412.049	-1536.37181	950230.6707
Jan-06	4.650068862	318668.6775	106712.5145	112051.5635	293416.1648	-1105.200685	962711.9806
Dec-05	5.387321725	351465.7412	121408.1733	113917.2154	311356.5979	-1349.491407	1031848.829
Nov-05	9.363874181	215625.186	149864.7873	111677.0268	302955.9551	-2650.144078	867297.4892
Oct-05	17.4581033	226869.9663	154656.9819	126141.9476	316743.5139	-5346.556433	922931.5381
Sep-05	27.22302386	264620.1742	149569.6476	123548.5691	312058.6519	-8585.335811	961090.2285
Aug-05	33.71155353	283509.1788	128466.1121	127784.1976	331530.0119	-10757.37436	1012989.325

Jul-05	34.26496566	277100.815	113209.6746	121439.4105	272413.1498	-10997.71236	936365.3201
Jun-05	30.41718318	224519.3063	125908.4487	118365.5842	277710.8701	-9685.492616	865806.3875
May-05	24.59504532	184240.6471	157090.4683	127115.8181	285165.0237	-7728.08746	829733.9996
Apr-05	16.17444189	183839.841	128999.6346	116431.2923	274113.2952	-4941.709011	781188.9838
Mar-05	10.747564	276693.774	111442.2152	123421.0186	282298.61	-3119.252996	924330.8843
Feb-05	5.771705476	299997.5628	128904.5455	118851.7619	251309.8829	-1520.426986	898118.3052
Jan-05	4.606836416	334329.3319	103711.7304	115550.2236	265567.457	-1093.730655	964448.3751

**Total Monthly Electricity Consumption per Sector (KWh) (Based on Georgia Power Files Received from the County)**

Sectors	Months												Total (KWh)
	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	
Administration	1,391,499	1,162,887	1,074,981	1,271,289	1,193,943	1,342,590	1,517,424	1,502,088	1,417,431	1,516,398	1,160,283	1,245,105	15,795,918
Airport	80,265	83,624	73,526	72,503	65,385	66,431	79,315	78,950	74,385	76,078	63,535	77,276	891,273
Facilities Management	1,462,908	1,495,332	1,317,223	NA	1,442,342	1,545,064	1,705,784	1,629,243	1,626,261	1,682,406	1,536,375	1,700,165	17,143,103
Fire Stations	774,123	NA	639,269	721,887	693,642	756,486	854,733	797,957	766,679	799,920	679,543	687,765	8,172,004
Parks	360,449	406,589	306,052	270,426	298,427	449,135	545,833	512,956	448,774	441,954	341,043	383,901	4,765,539
Police	365,391	360,547	311,485	310,791	296,821	387,438	412,028	416,159	405,403	369,059	281,689	313,342	4,230,153
Sanitation	195,239	220,075	200,517	180,595	178,374	194,908	197,999	215,146	210,702	218,958	167,822	201,459	2,381,794
Senior Centers	239,252	245,012	227,769	232,305	235,187	NA	282,011	308,659	283,943	277,510	230,929	232,423	2,795,000
Street Lights and Highwa	1,847,490	1,784,270	1,595,081	1,712,843	1,683,815	2,005,347	2,056,713	1,994,899	1,913,050	1,936,505	2,100,038	1,828,924	22,458,975
Watershed	6,513,769	6,543,855	5,855,532	6,243,812	5,865,508	6,358,140	6,234,001	6,172,421	5,959,316	6,767,743	6,400,011	6,122,336	75,036,444

# DeKalb County Emissions by Sector





**Emission Factors for Greenhouse Gas Inventories**

Last Modified: 12 September 2023

Blue text indicates an update from the 2022 version of this document.

Typically, greenhouse gas emissions are reported in units of carbon dioxide equivalent (CO<sub>2</sub>e). Gases are converted to CO<sub>2</sub>e by multiplying by their global warming potential (GWP). The emission factors listed in this document have not been converted to CO<sub>2</sub>e. To do so, multiply the emissions by the corresponding GWP listed in the table below.

Gas	100-Year GWP
CH <sub>4</sub>	25
N <sub>2</sub> O	298

Source: Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4), 2007. See the source note to Table 11 for further explanation.

**Table 1 Stationary Combustion**

Fuel Type	Heat Content (HHV) mmBtu per short ton	CO <sub>2</sub> Factor kg CO <sub>2</sub> per mmBtu	CH <sub>4</sub> Factor g CH <sub>4</sub> per mmBtu	N <sub>2</sub> O Factor g N <sub>2</sub> O per mmBtu	CO <sub>2</sub> Factor kg CO <sub>2</sub> per short ton	CH <sub>4</sub> Factor g CH <sub>4</sub> per short ton	N <sub>2</sub> O Factor g N <sub>2</sub> O per short ton
<b>Natural Gas</b>							
Natural Gas	0.001026	53.06	1.0	0.10	0.05444	0.00103	0.00010
<b>Other Fuels - Gaseous</b>							
Propane Gas	0.002516	61.46	3.0	0.60	0.15463	0.007548	0.001510
<b>Petroleum Products</b>							
Distillate Fuel Oil No. 2	0.138	73.96	3.0	0.60	10.21	0.41	0.08
<b>Biomass Fuels - Liquid</b>							
Biodiesel (100%)	0.128	73.84	1.1	0.11	9.45	0.14	0.01

Source: Federal Register EPA, 40 CFR Part 98; e-CFR, (see link below), Table C-1 and Table C-2 (78 FR 71950, Nov. 29, 2013, as amended at 81 FR 89252, Dec. 9, 2016), Table AA-1 (78 FR 71965, Nov. 29, 2013). <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98>

Notes: Emission factors are per unit of heat content using higher heating values (HHV). If heat content is available from the fuel supplier, it is preferable to use that value. If not, default heat contents are provided. The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions.

**Table 2 Mobile Combustion CO<sub>2</sub>**

Fuel Type	kg CO <sub>2</sub> per unit	Unit
Biodiesel (100%)	9.45	gallon
Compressed Natural Gas (CNG)	0.05444	scf
Diesel Fuel	10.21	gallon
Motor Gasoline	8.78	gallon

Source: Federal Register EPA, 40 CFR Part 98; e-CFR, (see link below), Table C-1 (78 FR 71950, Nov. 29, 2013, as amended at 81 FR 89252, Dec. 9, 2016). <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98>

Notes: LNG: The factor was developed based on the CO<sub>2</sub> factor for Natural Gas factor and LNG fuel density from GREET1\_2022.xlsx Model, Argonne National Laboratory (Fuel\_Specs worksheet). The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions.

**Table 3 Mobile Combustion CH<sub>4</sub> and N<sub>2</sub>O for On-Road Gasoline Vehicles**

Vehicle Type	Year	CH <sub>4</sub> Factor (g / mile)	N <sub>2</sub> O Factor (g / mile)
Gasoline Passenger Cars	1973-1974	0.1696	0.0197
	1975	0.1423	0.0443
	1976-1977	0.1406	0.0458
	1978-1979	0.1389	0.0473
	1980	0.1326	0.0499
	1981	0.0802	0.0626
	1982	0.0795	0.0627
	1983	0.0782	0.0630
	1984-1993	0.0794	0.0647
	1994	0.0617	0.0603
	1995	0.0531	0.0560
	1996	0.0434	0.0503
	1997	0.0337	0.0446
	1998	0.0240	0.0389
	1999	0.0215	0.0355
	2000	0.0175	0.0304
	2001	0.0105	0.0212
	2002	0.0102	0.0207
	2003	0.0095	0.0181
	2004	0.0078	0.0085
	2005	0.0075	0.0067
	2006	0.0076	0.0075
	2007	0.0072	0.0052
2008	0.0072	0.0049	
2009	0.0071	0.0046	
2010	0.0071	0.0046	
2011	0.0071	0.0046	
2012	0.0071	0.0046	
2013	0.0071	0.0046	
2014	0.0071	0.0046	
2015	0.0068	0.0042	
2016	0.0065	0.0038	
2017	0.0054	0.0018	
2018	0.0052	0.0016	
2019	0.0051	0.0015	
2020	0.0050	0.0014	
Gasoline Light-Duty Trucks (Vans, Pickup Trucks, SUVs)	1973-1974	0.1908	0.0218
	1975	0.1634	0.0513
	1976	0.1594	0.0555
	1977-1978	0.1614	0.0534
	1979-1980	0.1594	0.0555
	1981	0.1479	0.0660
	1982	0.1442	0.0681



	1983	0.1368	0.0722
	1984	0.1294	0.0764
	1985	0.1220	0.0806
	1986	0.1146	0.0848
	1987-1993	0.0813	0.1035
	1994	0.0646	0.0982
	1995	0.0517	0.0908
	1996	0.0452	0.0871
	1997	0.0452	0.0871
	1998	0.0412	0.0787
	1999	0.0333	0.0618
	2000	0.0340	0.0631
	2001	0.0221	0.0373
	2002	0.0242	0.0424
	2003	0.0221	0.0373
	2004	0.0115	0.0088
	2005	0.0105	0.0064
	2006	0.0108	0.0080
	2007	0.0103	0.0061
	2008	0.0095	0.0036
	2009	0.0095	0.0036
	2010	0.0095	0.0035
	2011	0.0096	0.0034
	2012	0.0096	0.0033
	2013	0.0095	0.0035
	2014	0.0095	0.0033
	2015	0.0094	0.0031
	2016	0.0091	0.0029
	2017	0.0084	0.0018
	2018	0.0081	0.0015
	2019	0.0080	0.0013
	2020	0.0079	0.0012
Gasoline Heavy-Duty Vehicles	≤1980	0.4604	0.0497
	1981-1984	0.4492	0.0538
	1985-1986	0.4090	0.0515
	1987	0.3675	0.0498
	1988-1989	0.3492	0.0333
	1990-1995	0.3246	0.1142
	1996	0.1278	0.1680
	1997	0.0924	0.1726
	1998	0.0655	0.1750
	1999	0.0648	0.1724
	2000	0.0630	0.1660
	2001	0.0577	0.1468
	2002	0.0634	0.1673
	2003	0.0602	0.1553
	2004	0.0298	0.0164
	2005	0.0297	0.0083
	2006	0.0299	0.0241
	2007	0.0322	0.0015
	2008	0.0340	0.0015
	2009	0.0339	0.0015
	2010	0.0320	0.0015
	2011	0.0304	0.0015
	2012	0.0313	0.0015
	2013	0.0313	0.0015
	2014	0.0315	0.0015
	2015	0.0332	0.0021
	2016	0.0321	0.0061
	2017	0.0329	0.0084
	2018	0.0326	0.0082
	2019	0.0330	0.0091
	2020	0.0328	0.0098
Gasoline Motorcycles	1960-1995	0.0070	0.0083
	1996-2005	0	0
	2006-2020	0.0070	0.0083

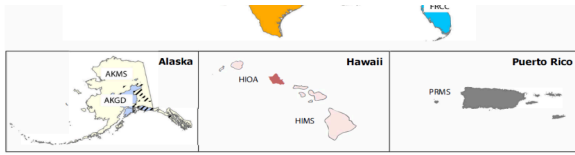
Source: EPA (2022) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020 (Annexes). All values are calculated from Tables A-84 through A-88.

Notes:  
Emission factor updates due to a methodology change.  
The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions.

**Table 4 Mobile Combustion CH4 and N2O for On-Road Diesel and Alternative Fuel Vehicles**

Vehicle Type	Fuel Type	Vehicle Year	CH4 Factor (g / mile)	N2O Factor (g / mile)
Passenger Cars	Diesel	1960-1982	0.0006	0.0012
		1983-2006	0.0005	0.0010
		2007-2020	0.0302	0.0192
Light-Duty Trucks	Diesel	1960-1982	0.0011	0.0017
		1983-2006	0.0009	0.0014
		2007-2020	0.0290	0.0214
Medium- and Heavy-Duty Vehicles	Diesel	1960-2006	0.0051	0.0048
		2007-2020	0.0095	0.0431
Light-Duty Cars	Methanol		0.0150	0.0040
	Ethanol		0.0150	0.0040
	CNG		0.1460	0.0040
	LPG		0.0150	0.0040
Light-Duty Trucks	Biodiesel		0.0300	0.0190
	Ethanol		0.0160	0.0050
	CNG		0.1580	0.0050
	LPG		0.0160	0.0050
Medium-Duty Trucks	LNG		0.1580	0.0050
	Biodiesel		0.0290	0.0210
	CNG		1.8290	0.0010
	LPG		0.0090	0.0180
Heavy-Duty Trucks	LNG		1.8290	0.0010
	Biodiesel		0.0090	0.0430
	Methanol		0.0750	0.0280
	Ethanol		0.0750	0.0280
	CNG		0.9210	0





**Table 7 Steam and Heat**

	CO2 Factor (kg / mmBtu)	CH4 Factor (g / mmBtu)	N2O Factor (g / mmBtu)
Steam and Heat	66.33	1.250	0.125

**Notes:**  
Emission factors are per mmBtu of steam or heat purchased. These factors assume natural gas fuel is used to generate steam or heat at 80 percent thermal efficiency. The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions.

**Scope 3 Emission Factors**

Scope 3 emission factors provided below are aligned with the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions, version 1.0 (Scope 3 Calculation Guidance). Where applicable, the specific calculation method is referenced. Refer to the Scope 3 Calculation Guidance for more information (<http://www.ghgprotocol.org/scope-3-technical-calculation-guidance>)

**Table 8 Scope 3 Category 4: Upstream Transportation and Distribution and Category 9: Downstream Transportation and Distribution**

These factors are intended for use in the distance-based method defined in the Scope 3 Calculation Guidance. If fuel data are available, then the fuel-based method should be used, with factors from Tables 2 through 5.

Vehicle Type	CO2 Factor (kg / unit)	CH4 Factor (g / unit)	N2O Factor (g / unit)	Units
Medium- and Heavy-Duty Truck	1.387	0.013	0.038	vehicle-mile
Passenger Car A	0.313	0.008	0.007	vehicle-mile
Light-Duty Truck B	0.467	0.013	0.012	vehicle-mile
Medium- and Heavy-Duty TruckC	0.170	0.0016	0.0047	ton-mile
Rail	0.021	0.0016	0.0005	ton-mile
Waterborne Craft	0.044	0.0254	0.0011	ton-mile
Aircraft	0.698	0	0.0215	ton-mile

**Source:**  
CO2, CH4, and N2O emissions data for road vehicles are from Table 2-13 of the EPA (2022) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020. Vehicle-miles and passenger-miles data for road vehicles are from Table VM-1 of the Federal Highway Administration Highway Statistics 2020. CO2e emissions data for non-road vehicles are based on Table A-107 of the EPA (2022) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020, which are distributed into CO2, CH4, and N2O emissions based on fuel/vehicle emission factors. Freight ton-mile data are from Table 1-50 of the Bureau of Transportation Statistics, National Transportation Statistics for 2021 (2020 data).

**Notes:**  
Vehicle-mile factors are appropriate to use when the entire vehicle is dedicated to transporting the reporting company's product. Ton-mile factors are appropriate when the vehicle is shared with products from other companies. The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions. A Passenger car: includes passenger cars, minivans, SUVs, and small pickup trucks (vehicles with wheelbase less than 121 inches). A Light-duty truck: includes full-size pickup trucks, full-size vans, and extended-length SUVs (vehicles with wheelbase greater than 121 inches). C Medium- and Heavy-Duty Truck: includes Combination Trucks and single frame trucks that have 2-Axles and at least 6 tires or a gross vehicle weight rating exceeding 10,000 lbs.

**Table 9 Scope 3 Category 5: Waste Generated in Operations and Category 12: End-of-Life Treatment of Sold Products**

These factors are intended for use in the waste-type-specific method or the average-data method defined in the Scope 3 Calculation Guidance for category 5 and category 12. Choose the appropriate material and disposal method from the table below. For the average-data method, use one of the mixed material types, such as mixed MSW.

Material	Metric Tons CO2e / Short Ton Material					
	RecycledA	LandfilledB	CombustedC	CompostedD	Anaerobically Digested (Dry Digestate with Curing)	Anaerobically Digested (Wet Digestate with Curing)
Mixed MSW	NA	0.52	0.43	NA	NA	NA

**Source:** EPA, Office of Resource Conservation and Recovery (February 2016) Documentation for Greenhouse Gas Emission and Energy Factors used in the Waste Reduction Model (WARM), Factors from tables provided in the Management Practices Chapters and Background Chapters. WARM Version 15, November 2020 Update. Additional data provided by EPA, WARM-15 Background Data.

**Notes:** These factors do not include any avoided emissions impact from any of the disposal methods. All the factors presented here include transportation emissions, which are optional in the Scope 3 Calculation Guidance, with an assumed average distance traveled to the processing facility. AR4 GWPs are used to convert all waste emission factors into CO2e. A Recycling emissions include transport to recycling facility and sorting of recycled materials at material recovery facility. B Landfilling emissions include transport to landfill, equipment use at landfill and fugitive landfill CH4 emissions. Landfill CH4 is based on typical landfill gas collection practices and average landfill moisture conditions. C Combustion emissions include transport to combustion facility and combustion-related non-biogenic CO2 and N2O. D Composting emissions include transport to composting facility, equipment use at composting facility and CH4 and N2O emissions during composting.

**Table 10 Scope 3 Category 6: Business Travel and Category 7: Employee Commuting**

These factors are intended for use in the distance-based method defined in the Scope 3 Calculation Guidance. If fuel data are available, then the fuel-based method should be used, with factors from Tables 2 through 5.

Vehicle Type	CO2 Factor (kg / unit)	CH4 Factor (g / unit)	N2O Factor (g / unit)	Units
Passenger Car A	0.313	0.008	0.007	vehicle-mile
Light-Duty Truck B	0.467	0.013	0.012	vehicle-mile
Motorcycle	0.178	0.111	0.019	vehicle-mile
Intercity Rail - Northeast Corridor C	0.058	0.0055	0.0007	passenger-mile
Intercity Rail - Other Routes C	0.150	0.0117	0.0038	passenger-mile
Intercity Rail - National Average C	0.113	0.0092	0.0026	passenger-mile
Commuter Rail D	0.135	0.0152	0.0027	passenger-mile
Transit Rail (i.e. Subway, Tram) E	0.096	0.0080	0.0011	passenger-mile
Bus	0.055	0.0063	0.0011	passenger-mile
Air Travel - Short Haul (< 300 miles)	0.207	0.0064	0.0066	passenger-mile
Air Travel - Medium Haul (>= 300 miles, < 2300 miles)	0.129	0.0006	0.0041	passenger-mile
Air Travel - Long Haul (>= 2300 miles)	0.163	0.0006	0.0052	passenger-mile

**Source:**  
CO2, CH4, and N2O emissions data for highway vehicles are from Table 2-13 of the EPA (2022) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020. Vehicle-miles and passenger-miles data for highway vehicles are from Table VM-1 of the Federal Highway Administration Highway Statistics 2020. Fuel consumption data and passenger-miles data for rail are from Tables A.14 to A.16 and C.9 to C.11 of the Transportation Energy Data Book: Edition 40. Fuel consumption was converted to emissions by using fuel and electricity emission factors presented in the tables above. Intercity Rail factors from communication with Amtrak, March 2020. These are based on 2019 values. Air Travel factors from 2022 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. Version 2.0 June 2022.

**Notes:**

The factors represented in the table above represent combustion emissions only (tank-to-wheel) and do not represent upstream emissions or well-to-wheel emissions.

CH4 and N2O emission factor updates for motorcycle and bus due to a methodology change.

A Passenger car: includes passenger cars, minivans, SUVs, and small pickup trucks (vehicles with wheelbase less than 121 inches).

B Light-duty truck: includes full-size pickup trucks, full-size vans, and extended-length SUVs (vehicles with wheelbase greater than 121 inches).

C Inter-city rail: Amtrak long-distance rail between major cities. Northeast Corridor extends from Boston to Washington D.C. Other Routes are all routes outside the Northeast Corridor.

D Commuter rail: rail service between a central city and adjacent suburbs (also called regional rail or suburban rail).

E Transit rail: rail typically within an urban center, such as subways, elevated railways, metropolitan railways (metro), streetcars, trolley cars, and trams.

**Global Warming Potentials**

**Table 11 Global Warming Potentials (GWPs)**

Gas	100-Year GWP
CO2	1
CH4	25
N2O	298
HFC-23	14,800
HFC-32	675
HFC-41	92
HFC-125	3,500
HFC-134	1,100
HFC-134a	1,430
HFC-143	353
HFC-143a	4,470
HFC-152	53
HFC-152a	124
HFC-161	12
HFC-227ea	3,220
HFC-236cb	1,340
HFC-236ea	1,370
HFC-236fa	9,810
HFC-245ca	693
HFC-245fa	1,030
HFC-365mfc	794
HFC-43-10mee	1,640
SF6	22,800
NF3	17,200
CF4	7,390
C2F6	12,200
C3F8	8,830
c-C4F8	10,300
C4F10	8,860
C5F12	9,160
C6F14	9,300
C10F18	>7,500

**Source:**  
100-year GWPs from IPCC Fourth Assessment Report (AR4), 2007. IPCC AR4 was published in 2007 and is among the most current and comprehensive peer-reviewed assessments of climate change. AR4 provides revised GWPs of several GHGs relative to the values provided in previous assessment reports, following advances in scientific knowledge on the radiative efficiencies and atmospheric lifetimes of these GHGs and of CO2.

Factors in the 2023 Emission Factors update are based on AR4 GWPs, but EPA recognizes that Fifth Assessment Report (AR5) GWPs have been published and used in the Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021 report (published February 2023). However, this 2023 Emission Factors Hub and the GHG Reporting Program continue to use AR4 GWPs; EPA plans to incorporate AR5 GWPs into the 2024 Emission Factors Hub update.

**Table 12 Global Warming Potentials (GWPs) for Blended Refrigerants**

ASHRAE #	100-year GWP	Blend Composition
R-401A	16	53% HCFC-22, 34% HCFC-124, 13% HFC-152a
R-401B	14	61% HCFC-22, 28% HCFC-124, 11% HFC-152a
R-401C	19	33% HCFC-22, 52% HCFC-124, 15% HFC-152a
R-402A	2,100	38% HCFC-22, 6% HFC-125, 2% propane
R-402B	1,330	60% HCFC-22, 38% HFC-125, 2% propane
R-403B	3,444	56% HCFC-22, 39% PFC-218, 5% propane
R-404A	3,922	44% HFC-125, 4% HFC-134a, 52% HFC 143a
R-406A	0	55% HCFC-22, 41% HCFC-142b, 4% isobutane
R-407A	2,107	20% HFC-32, 40% HFC-125, 40% HFC-134a
R-407B	2,804	10% HFC-32, 70% HFC-125, 20% HFC-134a
R-407C	1,774	23% HFC-32, 25% HFC-125, 52% HFC-134a
R-407D	1,627	15% HFC-32, 15% HFC-125, 70% HFC-134a
R-407E	1,552	25% HFC-32, 15% HFC-125, 60% HFC-134a
R-408A	2,301	47% HCFC-22, 7% HFC-125, 46% HFC 143a
R-409A	0	60% HCFC-22, 25% HCFC-124, 15% HCFC-142b
R-410A	2,088	50% HFC-32, 50% HFC-125
R-410B	2,229	45% HFC-32, 55% HFC-125
R-411A	14	87.5% HCFC-22, 11 HFC-152a, 1.5% propylene
R-411B	4	94% HCFC-22, 3% HFC-152a, 3% propylene
R-413A	2,053	88% HFC-134a, 9% PFC-218, 3% isobutane
R-414A	0	51% HCFC-22, 28.5% HCFC-124, 16.5% HCFC-142b
R-414B	0	5% HCFC-22, 39% HCFC-124, 9.5% HCFC-142b
R-417A	2,346	46.6% HFC-125, 5% HFC-134a, 3.4% butane
R-422A	3,143	85.1% HFC-125, 11.5% HFC-134a, 3.4% isobutane
R-422D	2,729	65.1% HFC-125, 31.5% HFC-134a, 3.4% isobutane
R-423A	2,280	47.5% HFC-227ea, 52.5% HFC-134a
R-424A	2,440	50.5% HFC-125, 47% HFC-134a, 2.5% butane/pentane
R-426A	1,508	5.1% HFC-125, 93% HFC-134a, 1.9% butane/pentane
R-428A	3,607	77.5% HFC-125, 2% HFC-143a, 1.9% isobutane
R-434A	3,245	63.2% HFC-125, 16% HFC-134a, 18% HFC-143a, 2.8% isobutane
R-500	32	73.8% CFC-12, 26.2% HFC-152a, 48.8% HCFC-22
R-502	0	48.8% HCFC-22, 51.2% CFC-115
R-504	325	48.2% HFC-32, 51.8% CFC-115
R-507	3,985	5% HFC-125, 5% HFC143a
R-508A	13,214	39% HFC-23, 61% PFC-116
R-508B	13,396	46% HFC-23, 54% PFC-116

0070C0Blue text indicates an update from the 2022 version of this document. Emission factors for Greenhouse Gas Inventories Last Modified: 12 September 2023

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**Source:**  
100-year GWPs from IPCC Fourth Assessment Report (AR4), 2007. See the source note to Table 11 for further explanation. GWPs of blended refrigerants are based on their HFC and PFC constituents, which are based on data from <http://www.epa.gov/ozone/nap/refrigerants/refblend.html>.



**Draft Dekalb County Climate Action Inventory**

This inventory describes actions that can be taken by Dekalb County, GA to mitigate its greenhouse gas emissions in line with County goals. Actions are categorized by sector, and characterized by their estimated cost, emissions mitigation potential, deployment timeline, and equity considerations. This inventory will support the further research, refinement, and selection of actions to be included in the Dekalb Decarbonization Scenarios effort.

**Submitting feedback**

To submit feedback (including comments, questions, and other responses) in response to an individual action, please use the "Specific Feedback" column in each sheet. Please indicate the name and/or department of the commenter.

General feedback or responses that do not fit in the "specific feedback" column should be entered in the "additional feedback" sheet at the end of this document.

### Action Title

Unique name used to identify the action in the inventory and future scenario documents

### Action Description

A brief description of the action to provide greater context; descriptions used in the draft inventory will be expanded and updated when included in inventory documents

### Timeframe - Estimated Start

Estimated year that action could be initiated, based on five-year intervals; note that this start year is not the same as the timeline that will be associated with each scenario, some actions may be pushed forward or backward, based on scenario goals and other actions used in a scenario

### Timeframe - Duration

Approximate number of years required to fully implement the action (in five-year increments); actions that can be accomplished immediately are indicated as 5-year actions; actions that would require a decade-plus for rollout are predominantly infrastructure replacement/improvement/hardening actions

### Characteristics - Cost

This is a first-pass estimate of the cost of implementation of an action on a scale of 1 - 4; idealized cost brackets grow exponentially (i.e., \$1 -10k, \$10-100k, \$100k - 1m, and \$1m - 10m+); estimates within this document are based on secondary sources and expert opinion; costs will be reestimated for scenario analysis

### Characteristics - Emissions Impact

Estimate of emissions mitigation potential of each action on a scale from Very Low to Very High; brackets correspond to percentages of **sectoral emissions** that could be mitigated by an action (i.e., VL: <<1%, L: ~1%, M: 1-5%, H:5-20%; VH 20%+); mitigation estimates in the draft inventory carry significant uncertainty due to a lack of benchmark knowledge about existing conditions as well as County emissions

### Equity Impacts

A discussion of equity considerations identified in the initial equity analysis of mitigation actions

**Notes**

Additional notes, sources, or relevant considerations associated with each action

# DeKalb Climate Action Inventory

Action		Timeframe		Characteristics				Specific Feedback (please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	
<b>Building Efficiency - Lighting</b>								
LED Lighting	Replace remaining incandescent, halogen, and neon bulbs with energy efficient LED alternatives	2025	5	\$	VL	Assess potential health benefits of improved lighting quality provided by LED bulbs, particularly for populations with specific health concerns such as migraines or visual impairments	Possibly complete?	
LVDC wiring	Install low-voltage direct current (LVDC) wiring in new-build and renovated office	2030	20	\$\$	VL	Measure number of jobs created in CEIST-designated disadvantaged communities (DACs) through installation of	Barriers incl. standards development	
Timers/motion sensors	Install motion sensors and timers in office and facility spaces where lighting is not required for safety	2025	5	\$	VL	Evaluate accessibility of office and facility spaces equipped with motion sensors and timers for people with disabilities and/or limited ranges of motion; this can involve gathering feedback from individuals with these circumstances to identify barriers to navigation or usability	Possibly complete?	
<b>Building Efficiency - Envelope</b>								
Window lamination	Add laminates to building windows to reduce heat loss/gain	2025	5	-\$	VL - L	Measure improvements in indoor temps and comfort levels after window lamination to assess whether the initiative contributes to a better work environment and productivity among County employees, particularly those in buildings with inadequate heating or cooling	Scope of opportunity depends in part on current conditions within County facilities	
Window upgrades	Replace building windows with higher-rated alternatives; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	20	\$\$-\$\$\$	L	Assess the impact of window upgrades on operational costs for County facilities, especially reductions in heating and cooling expenses; this metric can demonstrate potential opportunities to redistribute County budget/funds to essential social services to improve County equity	Scope of opportunity depends in part on current conditions within County facilities	
Retrocommissioning /Envelope thermal inspection	Conduct regular retrocommissioning of county buildings; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	25	-\$-\$\$\$	M - VH	Measure the distribution of funds/resources allocated for retrocommissioning & envelope thermal inspection across County buildings, assessing whether investments are positively impacting departments serving vulnerable populations/the needs of underserved communities	Scope of opportunity depends in part on current conditions within County facilities	
Weatherization upgrades to building envelopes	Catch-all weatherization upgrade program for building insulation, windows, doors, roofs, etc.	2025	25	N/A	L-M	Assess the distribution of vendor contracts for weatherization upgrades among minority-owned or disadvantaged business enterprises (MBEs/DBEs) to promote economic equity and accessible contracting opportunities among historically marginalized groups in the local business community.	Scope of opportunity depends in part on current conditions within County facilities	
<b>Building Efficiency - HVAC</b>								
Add zone control to HVAC systems	Install variable control zones in County buildings to minimize waste cooling/heating	2025	15	\$\$-\$\$\$	VL-L	Measure the impact of zone control on comfortability and indoor temperature regulation, especially in areas where employees/visitors spend extended periods, particularly in buildings in historically underserved departments or locations	Potentially limited applicability	
Variable refrigerant flow/variable frequency drives	Utilize variable refrigerant flow air handlers or variable-frequency drive chillers for County building HVAC to maximize efficiency	2025	15	\$\$-\$\$\$	L	Measure distribution of energy cost savings across county-operated buildings to determine whether energy efficiency benefits are distributed equitable among facilities serving vulnerable and/or energy burdened communities	Scope of opportunity depends in part on current conditions within County facilities	
Heat recovery fresh air circulation	Utilize fresh-air heat exchangers in county building HVAC systems to recover as much heating/cooling energy as possible	2025	10	-\$	L	Evaluate potential health benefits of enhanced indoor air quality for surrounding communities, especially in neighborhoods disproportionately affected by air pollution/respiratory illnesses	Scope of opportunity depends in part on current conditions within County facilities	
Air Source Heat Pumps	Install air-source heat pumps where they can increase County building HVAC efficiency; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	10	\$\$-\$\$\$	M	Evaluate the accessibility of maintenance and repair services for air-source heat pump systems, particularly in underserved areas, helping identify & address disparities in service delivery and response times based on geographic location or facility type.	Scope of opportunity depends in part on current conditions within County facilities	
High efficiency chillers	Install high-efficiency chillers where they can increase County building HVAC efficiency	2025	15	\$\$-\$\$\$	M	Evaluate whether the initiative leads to more equitable access to cooling services for county residents, particularly in buildings serving vulnerable populations such as senior centers or homeless shelters. This might be assessed by looking at changes in cooling capacity/service reliability in areas with historically limited access to AC.	Scope of opportunity depends in part on current conditions within County facilities	
Thermal load storage	Utilize thermal load storage systems (e.g., thermal batteries, heat sinks) to optimize daily and weekly energy use in County buildings	2035	25	\$\$\$\$	M	Examine the resilience of county-operated buildings to power outages after implementation of thermal load storage systems, particularly those in/serving DACs. This might involve looking at changes in backup power usage/facility downtime during extreme weather events/grid disruptions, especially in areas with higher risk of service interruptions.	Scope of opportunity depends in part on current conditions within County facilities	
<b>Building Efficiency - Other</b>								
Establish Building Efficiency Management Systems (BEMS)	Establish set practices for building operations, maintenance, and management teams to maximize building energy efficiency	2025	5	-\$-\$\$\$	M	Look at accessibility of training & capacity-building opportunities for building operations, maintenance, & management teams to implement BEMS practices & ensure support of skill development across diverse workforce	Scope of opportunity depends in part on current conditions within County facilities	
Lanscaping for energy efficiency (e.g. tree canopy) in County green spaces and building green areas	Develop and shift landscaping practices to provide cooling benefits to buildings. Similar to establishing BEMS, retro-commissioning ensures buildings are performing at their optimum efficiency/performance; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2030	5	-\$	L	Measure potential public health benefits of increased tree canopy coverage & cooling benefits in county green spaces, particularly for communities disproportionately affected by heat-related illnesses or air pollution	Cost depends on retrocommissioning process and scope, but \$ .05-.50 per sqft from literature	
Retrocommissioning of county buildings	LEED certification (various levels available), EnergyStar certification, or other certification (e.g., BREEAM, Green Globes, etc.); contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	5	-\$	L	Assess whether retrocommissioning efforts lead to more equitable distribution of maintenance and repair resources across county facilities	Scope of opportunity depends in part on current conditions within County facilities	
Green Buildings Certification/ performance standards for County buildings	The 2015 IECC is the current code requirement for energy conservation in buildings; DeKalb County could adopt the 2024 code (once published) for county-wide application, or limited simply to County buildings	2030	10	\$\$\$	M-H	Look at distribution of job creation & economic benefits resulting from green building projects, particularly for historically marginalized communities or MBEs/DBEs	Scope of opportunity depends in part on current conditions within County facilities	
Adopt latest International Energy Conservation Codes		2025	5	\$\$\$	M - H			
Insulation/interior upgrades	Improved insulation in older county buildings; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	5	\$\$\$	L	Evaluate whether insulation/interior upgrades contribute to more equitable distribution of property values across county-owned buildings and neighborhoods, while maintaining acute awareness of the risks of gentrification to low-income communities.	Scope of opportunity depends in part on current conditions within County facilities	
EnergySTAR appliance upgrades	Replace non-EnergySTAR appliances (incl. water heaters, air conditioners, refrigerators, furnaces, etc.) with approved appliances across County facilities to reduce energy consumption; contributes to the United Plan's goal of maintaining county participation in ARC Green Communities Program	2025	10	\$\$	L	Examine impact of EnergySTAR appliance upgrades on utility costs for County-owned housing units or properties with subsidized housing programs, especially in low-income neighborhoods or communities with limited access to retail options	Scope of opportunity depends in part on current conditions within County facilities	
Climate resilient and non-toxic schoolyards	Ensure schoolyards are resilient to heat and extreme weather by making improvements, such as planting shade trees, installing permeable surfaces, and using green infrastructure to reduce urban heat island effects and manage stormwater	2025	10	\$\$	VL	Conduct extensive community outreach and socioeconomic geospatial analysis to determine where school children are most vulnerable to hazards such as urban heat island effect to ensure both equitable and efficient implementation.	Minimal emissions mitigation impact, potentially not relevant	

Action	Timeframe	Characteristics	Specific Feedback (please indicate responding Agency/Department)
<p>Building operations optimization</p> <p>Conduct an evaluation of building utilization by County operations to identify potential efficiency improvements, including sites with either insufficient or excess space for their assigned business functions; similar in scope to above analyses of County buildings (incl. retrocommissioning), but with a specific focus on identifying opportunities to downsize buildings and/or close/replace outdated buildings.</p> <p>Establish an energy management division or senior energy manager role for County facilities who will be tasked with collecting, verifying, and reporting energy use data across all County sites. The energy manager function may include additional staff and/or fractional effort of existing staff at specific sites. The energy manager would be responsible for identifying opportunities to eliminate energy waste or improve energy efficiency.</p>	2025	10 \$ - \$\$\$\$ VL - H	<p>Evaluate changes in employee satisfaction and productivity resulting from building operations optimization, particularly in departments or facilities with historically high turnover rates or low morale.</p> <p>Scope of opportunity depends in part on current conditions within County facilities</p>
<p>Establish Energy Manager division or role in Facilities Department</p> <p>Onsite DERs</p>	2025	5 \$\$ - \$\$\$ M	<p>Scope of opportunity depends in part on current conditions within County facilities</p>
<p>Rooftop Solar</p> <p>Install solar panels on rooftops. Includes assessment of energy needs, potential solar capture, angle optimization, and conversion.</p>	2030	5 \$\$\$\$ VH	<p>Measure accessibility of rooftop solar installations across county buildings, particularly in DACs or energy burdened communities, looking at changes in energy sourcing or utility costs to ensure equitable distribution of benefits</p> <p>Additional cost relative to field solar</p>
<p>Solar sheds/solar parking lots</p> <p>Install solar panels in parking areas and on storage sheds/areas.</p>	2030	5 \$\$\$\$ VH	<p>Look at accessibility of benefits provided by solar sheds and parking lot installations to county employees and visitors, especially in areas with limited residential solar options. This might involve tracking changes in parking availability, shading, and electric vehicle charging infrastructure</p> <p>Additional cost relative to rooftop solar</p>
<p>Field solar</p> <p>Install solar panels with rotation potential (to maximize solar capture) in large fields or open spaces. Also known as solar farms/parks.</p>	2030	5 \$\$\$\$ VH	<p>Measure extent to which field solar projects incorporate community benefits sharing mechanisms, such as revenue-sharing agreements or community investment funds, tracking allocation of project revenues and assessing impact on local economic development/social wellbeing</p> <p>Characteristics estimated for County-scale solar energy provision</p>
<p>Onsite wind</p> <p>Install smaller on-site wind turbines for county buildings, minimizing transmission losses and providing more localized, resilient energy generation.</p>	2030	5 \$\$\$\$ VH	<p>Examine the level of community engagement and collaboration in the planning and implementation of onsite wind projects, tracking local stakeholder involvement in decision-making processes and benefit-sharing agreements.</p> <p>Costs roughly 30% - 100% greater than Field Solar</p>
<p>Fuel cells</p> <p>Fuel cells are highly efficient, scalable chemical energy processes that cleanly and efficiently produce heat and electricity</p>	2035	5 \$\$\$ N/A	<p>Evaluate potential job creation opportunities associated with deployment, such as manufacturing, installation, and maintenance. This might involve tracking employment and business growth in clean energy related sectors.</p>
<p>Battery electric storage</p> <p>Using batteries to store energy for future use allows captured renewable energy (i.e. from solar power) to be stored and used later, rather than being lost if not used immediately. Allows for increased use of renewable energy</p>	2030	5 \$\$\$ N/A	<p>Measure changes in energy reliability and resilience of battery electric storage systems for county facilities, particularly in areas with intermittent renewable energy resources or unreliable grid infrastructure.</p> <p>Implementation of battery electric storage is not a direct mitigation measure, but a supporting measure for renewable energy generation that could potentially reduce costs as energy demand declines</p>
<p>District energy/heat system for County facilities</p> <p>Similar to microgrid, but potentially including steam or hot/cold water provision; district energy system would allow greater efficiency and economics for building energy use within the district; reduced emissions through both centralized energy production and use of CHP or renewables</p>	2030	5 \$\$\$ - \$\$\$\$ M - VH	<p>Measure health and safety benefits associated with optimizing County heating and energy systems, like improved air quality and reduced energy burden. Conduct indoor air quality assessments and health surveys to gauge the impact on County employee and resident wellbeing.</p> <p>Characterizing costs and mitigation potential are highly specific to the selected district and buildings, energy services to be supplied, and energy source</p>
<p>Building Energy</p> <p>Offsite PPA</p>			
<p>Discourage natural gas use; promote electrification in new development</p> <p>Discourage the use of natural gas by providing homeowners with information about the benefits of electrification</p>	2025	5 \$ L-M	<p>Measure health and safety benefits associated with electrification, like improved air quality and reduced exposure to combustion-related pollutants. Conduct indoor air quality assessments and health surveys to gauge the impact on resident wellbeing</p>
<p>Promote all-electric development</p> <p>Promote building electrification benefits, including efficiency, affordability, safety, and health benefits associated with electrification; consider incentives such as tax credits, zoning bonuses, etc. for participating homeowners and builders</p>	2025	5 \$ M-H	<p>Measure accessibility of incentives for all-electric development for participating homeowners and builders, like tax credits or zoning bonuses; look at things like changes in building permit applications, construction trends, etc</p>
<p>Community Solar</p> <p>Install distributed solar networks in communities, allowing residents to access solar energy without the expense of installing solar panels on their own homes. Can also be through purchase agreement. Resilience and equity co-benefits.</p>	2030	10 \$\$ - \$\$\$\$ M-VH	<p>Measure impact of community solar networks for residents in vulnerable or energy burdened communities, looking at metrics relating to changes in energy sourcing and electricity costs</p> <p>Large potential variation in scale</p>
<p>Solar Microgrids</p> <p>Local, independently controlled power grids that operate on renewable energy separately from the main grid; enables campuses (including schools, hospitals, administrative buildings) to operate on a single connection to the grid and self-supply energy internally. Resilience co-benefits.</p>	2030	10 \$\$\$ M-H	<p>Measure extent to which solar microgrids enhance energy independence for communities, particularly in areas with unreliable or centralized grid infrastructure, looking at changes in energy reliability and resilience</p> <p>Large potential variation in scale</p>
<p>Utility PPAs</p> <p>Utility Power Purchase Agreements to purchase renewable energy from off-site generation.</p>	2025	5 \$\$ - \$\$\$\$ M-VH	<p>Measure impact and utilization of financing opportunities for residents and businesses to participate in utility PPAs, especially in DACs or energy burdened households</p> <p>Large potential variation in scale</p>
<p>Buildings - Other</p> <p>Carbon</p>			
<p>Onsite green infrastructure planning (e.g. street trees, bioswales, green roof, etc.)</p> <p>Green landscaping and building features to offset impact of heat on buildings (resilience) while also contributing to carbon mitigation and air pollution reduction.</p>	2025	5 \$ - \$\$\$ VL - L	<p>Measure distribution of onsite green infrastructure features, such as street trees and green roofs, across neighborhoods/communities, especially in areas with limited access to green spaces or high levels of urban heat island effect.</p>
<p>Utilize compost collection and carting for organic wastes at County facilities</p> <p>Collect and compost organic waste from County facilities, including parks, schools, offices, etc.</p>	2025	5 \$\$ - \$\$\$ VL - L	<p>Look at environmental justice impact of composting initiatives on surrounding communities, particularly areas with existing environmental burdens/vulnerabilities. Might involve conducting environmental assessments and community surveys to gather feedback and identify potential mitigation measures to address concerns such as odor or noise pollution.</p> <p>Similar to recommendation for MSW, but focused only on County facilities rather than Community compost collection</p>
<p>Buildings - Other</p> <p>Natural Gas</p>			
<p>Fugitive methane survey protocols (indoor/outdoor)</p> <p>Conduct a survey of all county buildings to detect sources of fugitive methane leaks</p>	2025	5 \$ - \$\$ L	<p>Measure equitable implementation of fugitive methane survey protocols across county facilities, ensuring all locations are surveyed regardless of geographic location or demographic characteristics. May involve tracking distribution of survey efforts and assessing completeness of coverage to identify potential gaps or disparities.</p> <p>Potential for significant ROI if large leaks exist</p>
<p>Electrification/NG conversion of NG appliances</p> <p>Convert NG appliances to electric or other power source. Begins with survey of current NG appliances, followed by potential replacement options and cost framework.</p>	2025	5 to 10 \$\$ L - M	<p>Assess health and safety benefits of electrification/conversion of NG appliances, such as indoor air quality and reduced exposure to combustion-related pollutants</p>
<p>Buildings - Other</p> <p>High GWP Gases</p>			
<p>Refrigerant leak inventory and management plan</p> <p>Establish program to regularly check refrigerant appliances (incl. HVAC, refrigerators, etc.) in County buildings to identify current and potential leaks, followed by monitoring options and management/cost framework</p>	2025	5 to 10 \$\$ L	<p>Evaluate the level of community engagement and participation in refrigerant leak inventory and management initiatives, especially in neighborhoods directly impacted by refrigerant emissions. This might involve conducting outreach events or public meetings to inform residents about the program and solicit input on areas of concern.</p> <p>Internal program for county facilities</p>
<p>Promote refrigerant leak awareness</p> <p>Promote refrigerant leak awareness through mechanical permitting system</p>	2025	5 \$ L-M	<p>Measure the accessibility of information regarding refrigerant leaks through the mechanical permitting system, ensuring all contractors and building owners are informed regardless of location, size, or type of building.</p> <p>Community-wide program</p>



Action	Timeframe	Characteristics	Specific Feedback (please indicate responding Agency/Department)
<p>Require Leak Management Plan/Reinspection for commercial buildings</p> <p>Require a Leak Management Plan for new mechanical permits; implement recurring reinspections for commercial buildings (potentially part of retrocommissioning)</p>	<p>2025</p> <p>10</p> <p>SS</p>	<p>M-H</p> <p>Measure equitable implementation of leak management plan requirements and recurring reinspections for commercial buildings, ensuring all businesses are held to the same standards regardless of size or ownership. This may involve tracking enforcement actions and penalties to identify potential disparities or inconsistencies in compliance.</p>	

Action		Timeframe		Characteristics				Specific Feedback (Please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	
Fleets - Efficiency	Vehicle Upgrades							
Fleet vehicle size reduction and replacement	Where possible, replace county fleet vehicles with smaller vehicles to improve vehicle efficiency; consider options for non-highway vehicle transportation (including transit, carpool, and e-micromobility solutions) for County workforce. For internal mobility at large-facilities consider golf-cart style vehicles.	2025		10 \$	L-M		Impact on operations: evaluate the impact of vehicle size reduction on county operations, particularly in departments serving underserved communities or populations with specific transportation needs by conducting surveys/interviews with frontline staff to gather feedback on vehicle usability and suitability.	While there are associated costs, it is expected that replacing large vehicles with smaller or non-vehicle alternatives will result in overall
Route optimization for energy efficiency	Evaluate county workforce and fleet vehicle trips; where possible, maximize route efficiency (reduce idling, doubling back, distance travelled, etc.) to reduce energy consumption and associated emissions. Include considerations of relocation of worksites if reasonable. Cost reduction co-benefits.	2025		5 \$	VL - L		Measure the equitable distribution of service improvements resulting from route optimization, ensuring that all communities and neighborhoods receive fair and consistent access to county services regardless of geographic location or demographic characteristics, looking at changes in service delivery times and frequency to identify areas of improvement and potential disparities.	
Maintain vehicles for optimal fuel efficiency	Ensure fleet maintenance addresses issues that can improve vehicles efficiency, including factors like tire air pressure, air filter flow, and elimination of unnecessary vehicle weight (e.g. surplus or redundant equipment/attachments)	2025		5 \$	VL - L		Measure changes in maintenance schedules and service availability to identify potential gaps or disparities in equitable maintenance services across all county departments and vehicles, especially those serving DACs.	
Fleets - Efficiency	VMT Mitigation							
Idling policy/training/monitoring	Ensure fleet vehicle operators are trained on anti-idling policy, provide in-vehicle reminders to cut unnecessary idling, and establish a means of measuring and correcting unnecessary fleet vehicle idling if problems are identified.	2030		5 \$			Conduct operational reviews to determine where idling is most common and its causes to further understand which regions and communities are disproportionately affected by unnecessary idling; ensure vehicle operators are well informed of these assessments to promote proactivity.	
Route/trip planning training and policy	Establish a policy that encourages and trains County fleet users to reduce trip lengths wherever possible	2025		5 \$	VL		Conduct route optimization studies to determine which regions are disproportionately affected by unnecessarily long routes. Address discrepancies with fleet operators and planners.	
Auxiliary air conditioners for vehicle cabs	Installation of auxiliary air conditioning systems for cab comfort in heavy duty vehicles to eliminate need for idling	2025		5 \$\$	L		Monitor health and safety benefits of reduced idling for vehicle operators and community members	
Fleets - Energy	Vehicle Upgrades							
Full electrification of County fleets	Convert all ICE fleet vehicles to fully electric vehicles; adopt commercially-available vehicles as offerings enter the market	2030		15 \$\$\$	M-H		Evaluate the distribution of charging infrastructure for electric vehicles, ensuring that charging stations are accessible to all employees and fleet vehicles, particularly in DACs or regions with limited access to transportation services.	Our expectation is that heavy-duty vehicles (including trucks, buses, and off-highway vehicles) will take >10 years to electrify
Accelerated full electrification of County fleets, including demonstration of heavy-duty electric vehicles	Pursue a strategy of early-adoption of electric vehicles to replace fleet vehicles, including heavy duty vehicles; this strategy will accelerate fleet decarbonization at the expense of increased costs and greater technology uncertainty	2025		10 \$\$\$	M-H		Investigate and analyze the community co-benefits of fleet electrification and implement an equitable distribution strategy to deploy electrified fleet vehicles where vulnerabilities tied to combustion engines are most dense	Higher-ambition alternative to full electrification
Partial electrification of County fleets including PHEVs	Staged conversion of County fleets to electric vehicles and plug-in hybrid vehicles to replace ICE vehicles; adoption of only commercially-available technologies as they become available	2030		15 \$\$\$	M-H		Assess environmental impact (emissions reductions) of PHEVs compared to traditional fuel vehicles to understand impact on surrounding communities.	Lower-ambition alternative to full electrification
Heavy-duty vehicle assessment and strategy	Conduct an assessment and analysis of the County's heavy duty vehicles that pose a challenge to electrification; evaluate available and near-maturity battery-electric and plug-in hybrid replacement options, including technology availability, fleet replacement timelines, cost/benefit (CBA), maintenance trade offs, etc.; identify opportunities to reduce or eliminate need for HDVs	2025		10 \$\$	L - M		Conduct fleet assessment to determine which heavy-duty vehicles serve LIDAC communities or communities that are disproportionately vulnerable to hazards such as air pollution; consider prioritizing these vehicles in electrification strategy.	Separate from full-electrification

Alternative fuels (biodiesel, renewable diesel)	Evaluate alternative fuel options for fleet vehicles.	2025	10 \$\$\$	VL - L	Evaluate the level of community engagement and stakeholder collaboration in promoting the adoption of alternative fuels, particularly in neighborhoods and communities with a stake in environmental and public health outcomes.	This approach is included for completeness, but not recommended
<b>Fleets - Energy</b>						
	<b>Infrastructure</b>					
Deploy high-voltage (level 3) charging stations and supporting infrastructure	Install high-voltage (Level 3) EV charging infrastructure in County facilities that serve as fleet hubs to increase charging speed and capacity for electrified county vehicles; this action would support deep electrification of County fleets	2025	5 \$\$ - \$\$\$	N/A	Measure equitable distribution of charging infrastructure across the county	Supporting action (no direct mitigation)
Deploy public charging point at key County facilities, including onsite solar DERs (e.g. solar sheds)	Deploy public charging infrastructure at major County facilities such as the Courthouse parking garage or Burgess building; this action would provide additional public charging infrastructure at major activity hubs in the county	2025	5 \$\$	L - M (community only)	Measure equitable distribution of charging with solar parking across the county	Mitigation potential is unknown, depends on scope of project and details such as proximity of public charging points to commercial/residential centers
Expand all County facilities charging stations to public access	Expand access at all L2 and L3 County charging stations to public access (i.e., add public charging points where high voltage infrastructure is already installed); public and County charging points could be separated but with shared backbone; this action would provide a substantial increase in EV capacity in the County and incentivize residents to adopt vehicle electrification	2025	5 \$\$	L - H (community only)	Determine which regions of the County face barriers to EV ownership as well as where need for EV charging stations may be highest: regions where individuals commute or carpool to work, etc.	

Action		Timeframe		Characteristics			Notes	Specific Feedback (Please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics		
Streets - Efficiency		Lighting						
LED street lighting	Replace remaining incandescent, halogen, sodium, etc. street light bulbs with energy-efficient LED alternatives	2025		5 \$ - \$\$\$	L		Measure for equitable distribution of LED street lighting upgrades across neighborhoods to ensure equitable benefit from improved lighting quality and energy efficiency, especially focusing on areas with higher safety concerns. Assess accessibility of LED traffic lighting for vulnerable road users, such as pedestrians, cyclists, and people with disabilities, ensuring signal timings and designs prioritize their safety and mobility needs.	Scope of opportunity depends in part on current conditions within County facilities
LED traffic lighting	Replace incumbent traffic lights with energy efficient LED alternatives	2025		5 \$-\$	VL			Scope of opportunity depends in part on current conditions within County facilities
Develop a County-wide Active Transportation Network	An active transportation network should connect activity centers with off-street multi-use paths that provide direct, convenient, predictable, and comprehensive routes. The network should serve as the backbone of an alternative surface transportation system within the county to enable residents to select alternatives to automobiles to travel around the County; the network should prioritize non-automobile travel timing and safety at road crossings	2030		10 \$\$\$ - \$\$\$\$	M - VH (community emissions)		As the cost of car ownership increases, the provision of an alternative transportation network for local trips will enable households to select lower-cost modes of travel while ensuring safety, reliability, and resilience.	Deployment of an active transportation network will work best with development of new ROWs (or segregation of portions of existing ROWs from roadways); the active transportation network would see fewer lane miles lost, compared to a complete streets approach
Implement a comprehensive complete streets program	Implement a comprehensive complete streets program that expands criteria for complete streets interventions to all public roadways; this action would constitute a substantial transformation in how public ROWs are used in the County, converting roadway space to active transportation lanes, sidewalks, safety interventions, and space for tree canopy coverage; this action would require substantial effort including a plan for phased deployment as well as intensive public-facing consultation to inform residents on the value and purpose of active transportation lanes, safety interventions, and land use conversions for tree canopy	2030		10 \$ - \$\$\$\$	M - VH (community emissions)		As the cost of car ownership increases, the provision of an alternative transportation network for local trips will enable households to select lower-cost modes of travel while ensuring safety, reliability, and resilience.	Deployment of a comprehensive complete streets plan would not require new ROWs, but would involve loss of vehicle lane miles and/or parking areas for conversion to alternative uses; large variation in costs depending on timeframe of rollout; updating roads to complete streets prior to scheduled repaving can add substantial costs, however updates concurrent with regular maintenance add marginal costs
Streets - Energy		Lighting						
Solar-powered signals (traffic, pedestrian)	Utilize solar power to run traffic lights and pedestrian signals at intersections	2030		5 \$-\$	VL		Improve road safety in areas where lighted signs can be installed without connection to utility service	
Streets - Resilience		Canopy						
Integrate canopy protection into public works services	Prioritize the preservation and expansion of tree canopy in County public works, streets, water, and planning projects, incl. by preserving existing canopy trees and by designing/engineering projects to sustain more large shade tree plantings Initiate a new cross-departmental program to identify high-priority areas for tree canopy expansion (including areas with high concentrations of vulnerability), design interventions, and install infrastructure and trees to ensure canopy; this program could include conversion of impermeable surfaces to permeable, realignment of streets/parking areas, and focused maintenance to ensure large shade trees are healthy and protected from premature failure	2025		5 \$-\$	VL-L		Assess impact of canopy protection efforts on public health and wellbeing outcomes in areas with higher rates of air pollution, heat islands, and health disparities to ensure equitable benefits from improved air quality, temperature regulation, and mental health benefits associated with trees.	Significant resilience benefits; indirect benefits to cooling energy emissions
Urban canopy expansion program	Active transportation and electric micromobility are becoming increasingly important alternatives to driving, but both alternatives suffer from incompatibility with automobile-focused infrastructure. Consistent with the Comprehensive Transportation Plan, County planners and engineers should seek to modernize and improve active transportation infrastructure, including participation in national trainings such as National Walking Summit and the Association of Pedestrian and Bicycle Professionals (APBP)	2025		15 \$ - \$\$\$	VL		Utilize data from publicly available tools such as Tree Score to understand where need for canopy coverage may be highest; prioritize expansion of canopy coverage in these areas and monitor community health co-benefits associated with canopy coverage.	Not a mitigation policy, but some emissions savings from related cooling
Implement state of the art active transportation policy and training	Association of Pedestrian and Bicycle Professionals (APBP)	2025		5 \$ - \$\$\$	N/A		Conduct community outreach and qualitative analysis to determine which communities face barriers to active transportation due to lack of resources or health concerns. Develop programs targeted to these communities to ensure equitable consideration of community needs as well as promote widespread awareness.	This is a supporting policy to active transportation network actions, so no associated emissions are attached

Action		Timeframe		Characteristics				Specific Feedback
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	(Please indicate responding Agency/Department)
Airports - Efficiency	GSE							
ZEVs for Ground Service Equipment	Replace ground service equipment (including fuel trucks, tugs, or any other GSE) with zero-emissions vehicles (e.g. battery electric vehicles)	2025		10 \$	L		Measure the reduction in air pollutants (e.g., NOx, particulate matter) from ground service equipment operations, with particular attention to neighborhoods most affected by this pollution currently.	
Airports - Efficiency	Aviation							
Reduce non-essential aircraft engine/APU use on tarmac	Avoid unnecessary use of inefficient and polluting turbofan engines and aircraft auxiliary power units (APUs) on the ground. Airport policies can set limits on engine/APU use, infrastructure upgrades (separate action) can mitigate need, and operations tracking can assist in identifying periods of non-essential running.	2025		5 \$	L-M		Measure the equitable distribution of benefits from reduced engine/APU use on communities disproportionately impacted by airport noise and pollution.	Cost may vary depending on a number of unknown factors
Airports - Efficiency	Facilities							
Install and/or maximize use of preconditioned air units (if applicable at PDK)	Use of preconditioned air units enables aircrafts to remain cool without running engines, reducing emissions from aircraft engines or APUs	2030		5 \$-\$\$\$	L - M		Measure improvement in air quality and reduction in health risks for airport workers and nearby communities due to decreased aircraft emissions.	Applicability to PDK operations is unknown, significant uncertainty in associated cost/mitigation estimates
Implement/deploy zero-emissions 400Hz ground power units (if applicable at PDK)	Ground power units (also called 400Hz units) allow planes to operate electrical systems using connections to the power grid, eliminating the need for engine or APU use; while ground power units are an important emissions mitigation strategy for commercial airports, applicability is unknown at PDK)	2030		5 \$ - \$\$\$	L - M		Monitor improvement in air quality and reduction in health risks for airport workers due to decreased aircraft emissions and idling. Monitor cost savings achieved by tenants through improved energy management, and how these cost savings will benefit communities equitably.	Applicability to PDK operations is unknown, significant uncertainty in associated cost/mitigation estimates
Submetering for airport tenants	If not already done, install submetering for tenants, including for hangars, FBO vendors, etc. to monitor energy consumption	2025		5 \$\$ - \$\$\$	L - M		Assess the increase in accessibility of EV charging for employees and visitors, with particular attention to people from disadvantaged communities.	
Deploy EV charging infrastructure for employees and visitors	Install EV charging stations in visitor and employee parking lots	2025		5 \$	L (community emissions only)			Cost and mitigation potential depend on the number of conventional bulbs still in use
Replace conventional apron and approach lighting with energy-efficient LEDs	Replace any remaining incumbent lighting with energy efficient LED alternatives	2025		5 \$	L		Training and job opportunities provided to local workers for LED installation and maintenance; Equitable distribution of benefits from cost savings	
Apply buildings efficiency technologies (incl. lighting, envelope/windows, HVAC, and others) to airport buildings	Implement established efficiency measures to airport facilities including terminal buildings, hangars, service buildings, and administration buildings	2025		10 \$\$ - \$\$\$	M-H		Assess the accessibility of energy efficiency upgrades to small or diverse businesses operating within the terminal; Track engagement of local suppliers and contractors in the implementation of building efficiency projects; Measure improvement in indoor air quality and thermal comfort for airport workers and passengers, particularly those who have disabilities.	Cost and mitigation potential depend on current conditions
Implement efficiency and sustainability standards for future airport development	New airport construction should implement sustainability standards, such as with operations, design, and integrated social, economic, and environmental considerations; Dekalb should continue to coordinate with partner agencies in the City of Chamblee to integrate their goals for future airport expansion	2025		5 \$ - \$\$	L - H		Assess the number of construction contracts awarded to local businesses and disadvantaged enterprises; Assess the socioeconomic impacts of airport construction projects on neighboring communities.	Cost and mitigation potential depend on current conditions and scope of policy amendments
Incorporate climate resilience measures and into future airport development	implement recommendations from the United Plan to continue work with partner agencies to provide multimodal transportation to the airport.	2025		5 \$-\$\$	VL		Consider of social equity principles in the allocation of resources for climate resilience initiatives; Engagement with vulnerable communities to identify climate risks and adaptation priorities for future planning.	
Airports - Energy	Onsite							
Large-scale solar development on Airport grounds	Large-scale solar development offsite in unused open space to provide airports with sustained solar electricity. Couple with battery storage.	2030		5 \$\$\$ - \$\$\$\$	H - VH		Number of local job opportunities created in the development, installation, and maintenance of solar infrastructure; Reduction in pollution in surrounding communities	Cost and mitigation potential depend on scale of installation

Action		Timeframe		Characteristics				Specific Feedback (Please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	
Explore sustainable aviation fuel infrastructure	When new technologies emerge at the demonstration or commercial phase, deploy sustainable aviation fuel distribution infrastructure onsite (e.g., fuel storage and distribution infrastructure)	2035		10 \$\$\$	VL	Develop training programs and informational sessions for airport workforce on sustainable aviation fuel infrastructure; aim to upskill in order to retain current workforce and provide equitable opportunity for airport staff engagement and participation in infrastructure development and implementation.	Sustainable aviation fuels are not currently commercially viable, this action is only relevant if they become viable, estimated start date is uncertain; emissions mitigation estimate is VL because aircraft operations are not part of County emissions	
Airports - Energy	Operations/Monitoring							
Collect and evaluate energy use and emissions data alongside operations data	If not already implemented, utilize integrated energy management system to track airport energy use (including submetering), identify trends, and isolate and mitigate energy waste; track energy use alongside operations to demonstrate improved efficiency over time	2025		5 \$	VL-L	Regular reporting on progress towards energy, equity and emissions-reduction goals to promote accountability and transparency; Transparency and accessibility of energy and emissions data to the public and relevant stakeholders.		
Airports - Other	Fugitive Emissions							
Carbon mitigation practices for disused land						Monitoring and evaluation of social and environmental co-benefits associated with carbon mitigation practices; Incorporation of community input and preferences in the planning and implementation of projects.		



Action		Timeframe		Characteristics			Notes	Specific Feedback (Please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics		
Waste & Water -	Operations							
Implement Water/Wastewater Master Plan	Implementation of the Dekalb County Water/Wastewater Master Plan will address numerous constraints on both water supply and wastewater removal that threaten to impair the system's efficiency and sustainability	2025		25 \$\$\$\$	L - H		Conduct geospatial analysis to determine which regions of the County are disproportionately exposed to the hazards associated with insufficient wastewater removal infrastructure as well as disproportionate exposure to toxic waste or unsafe water supply.	<a href="https://www.dekalbcountyga.gov/sites/default/files/users/user541/D%20Water%20and%20WW%20MP%202020-2050_Summary_Final_03042022.pdf">https://www.dekalbcountyga.gov/sites/default/files/users/user541/D%20Water%20and%20WW%20MP%202020-2050_Summary_Final_03042022.pdf</a>
Improve Energy Efficiency at Pole Bridge AWWTP	Historically, Pole Bridge AWWTP has used significantly more energy than Snapfinger or other WWTPs on a per-gallon basis of treated water; the district should identify if this is still the case, evaluate opportunities to improve energy efficiency, and prioritize capital improvements necessary to achieve these improvements; consider conversion to WTE	2035		10 \$\$-\$\$\$	M		Current operations at Pole Bridge include use of biosolids for hay fertilization; potential community impacts (negative or positive) related to converting to an anaerobic and/or waste to energy facility.	
WWTP energy audit	Conduct energy audit at Snapfinger and Pole Bridge AWWTPs. Review processes, systems, and equipment for efficiency gaps, identify outdated equipment (and replacement options), and evaluate plant processes to identify potential alternatives with energy (and emissions) savings potential. Establish process for recurring review every five years.	2030		5 \$\$ - \$\$\$			Assess impact of internal control systems reviews on environmental health and safety outcomes in surrounding communities, especially in areas with higher pollution, by conducting env. assessments and health surveys	
Waste & Water - Efficiency	Equipment							
Variable speed drives for pumps	Switch to variable speed drives for water pumps to minimize wasted energy and better meet facility needs.	2025		5 \$\$	L		Analyze changes in consumption patterns, conservation program participation rates, and water bill affordability to measure equitable access to water conservation benefits resulting from pump optimization measures.	
Waste & Water - Energy	Use							
Electrification?	Electrify components of waste & water systems currently using non-electric energy.	2030		10 \$\$	M		Conduct public meetings, stakeholder workshops, or community surveys to gather input on energy priorities and evaluate the level of community-driven prioritization in electrification initiatives.	
Capture and use anaerobic decomposition gases	Converts methane into CO2, a less potent GHG. Capture processes and facilities would need to be established.	2030		10 \$\$\$	M		Conduct health assessments, env. Assessments, and community surveys to measure the impact of gas capture & combustion on public health outcomes.	
Initiate programs to identify and mitigate facility water waste	Initiate a county facilities program to conduct building water audits of county and school facilities, identify and mitigate high-priority leaks and/or wasteful uses. Seek external funding for major mitigation efforts.	2025		5 \$\$	VL - L		Conduct community health surveys to determine high-priority facilities serving students and faculty facing health issues connected to poor water quality.	Action is recommended in 2011 Long-range Sustainability Plan
Waste & Water - Energy	Source							
Internal facility DER opportunities (install solar?)								
Waste & Water - Other	Other							
Sewerage sludge fugitive emissions mitigation at AWWTPs	Minimize leaks of anaerobic decomposition gases at AWWTPs to reduce release of GHGs and VOCs. Focus on mitigating uncontrolled anaerobic decomposition in sewer trunk lines, within plant, and in plant outputs (e.g., incl. biosolids)	2025		5 \$ - \$\$\$	VL - L		Reduction of VOC emissions can benefit nearby communities by reducing nuisance odors, e.g.	Large potential variation in scope of measure; depends on sufficiency of current conditions
Information campaign to promote water use efficiency	Use communications with ratepayers to promote water use efficiency with periodic notifications of water efficiency strategies, data on historical water use, analysis of significant changes in water use, etc. the water bill for customers. Improved customer efficiency reduces overall system load and energy	2025		5 \$	VL - L		Develop accessible and publicly available PSAs and educational materials to raise awareness in easily digestible formats for residents of all backgrounds, ages, and education levels. Conduct demographic analysis to determine which languages informational materials and PSAs ought to be developed in/translated into to ensure widespread accessibility and community consumption.	Improved water use efficiency
Evaluate sewer and stormwater capacity sufficiency under climate change scenarios	Initiate a program to evaluate the capacity and sufficiency of Dekalb sewer and stormwater infrastructure for anticipated changes to precipitation patterns under climate change	2030		10 \$\$\$ - \$\$\$\$	VL - L		Anticipated changes to precipitation patterns in Dekalb County include increases in the number of days per year experiencing extreme precipitation; insufficient stormwater infrastructure capacity can result in localized flooding in areas where sewers back up or in low lying area where runoff collects before draining. Improved stormwater capacity also reduces the risk of stormwater runoff into the Chattahoochee watershed.	

Implement LEED water conservation measures in County facilities

Replace fixtures, meters, appliances, etc. to ensure maximum water conservation following LEED measures (or other sustainable building practices); recommendation consistent with 2011 long-range sustainability plan

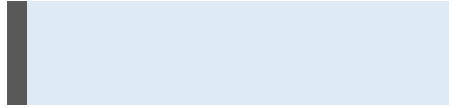
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Determine which County facilities serve Justice40 disadvantaged communities and prioritize their retrofitting to amplify the extended co-benefits of building upgrades and sustainability to more vulnerable communities.

Improved water use efficiency



Action		Timeframe		Characteristics				Specific Feedback
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	(Please indicate responding Agency/Department)
Parks - Mitigation	Operations							
Rewild County green spaces	<p>Improve ecological diversity and resilience of county green spaces by reintroducing native plants and animals, restoring natural processes where possible (incl. fire, hydrology, etc.), and managing green spaces for ecosystem services. Unused/underused areas maintained with mowing/spraying are a primary candidate for conversion to meadow/savannah/forest.</p> <p>In County parks and green spaces, consider landscape designs that integrate rainwater detention/retention and/or filtration systems to improve County flood and water resilience; the Future Land Use Plan provides guidance to focus on integrating stormwater harvesting, filtration, infrastructure and greenspace in activity centers.</p>	2025		15 \$ - \$\$	L	Percentage increase in availability of native plants in community gardens or public spaces in low-income neighborhoods.	Improved ecosystem resilience to disruptive weather events	
Explore use of parkland for rainwater harvesting, filtration, and flood mitigation		2030		5 \$ - \$\$\$	N/A	Reduction in stormwater runoff and flooding incidents in areas with rainwater harvesting systems, particularly in flood-prone underserved communities	Aligns with Activity #09 in the Future Land Use Plan's Community Work Program - Planning and Sustainability	
Parks - Mitigation	Investment							
Urban tree canopy and green space expansion plan	<p>Develop a plan to expand tree canopy coverage and green spaces (permeable surfaces) county-wide to mitigate Urban Heat Island effect (UHI) during extreme heat emergencies. Increased tree canopy (either through more trees or larger trees) provides shade, insulating streets, sidewalks, buildings, and parks from sunlight, reducing temperatures and cooling energy demand; green spaces that allow water to permeate the surface also contribute to cooling. Policies may include outreach, incentives, updates to tree ordinance, zoning/code regulations, etc.; evaluate progress implemented since 2011 sustainability plan and adapt lessons learned</p> <p>Promote alternative landscaping for residential and commercial lots (including native vegetation, drought-hardy landscapes, and ecosystem supporting plantings) with public information campaigns (e.g., competitions for outstanding lawn conversions, etc.), outreach to professionals (e.g., via County composting facility, etc.), and other channels</p>	2025		10 \$\$	M	Block- or neighborhood-scale tree canopy can be measured with remote sensing; metrics can include a minimum canopy coverage threshold to trigger interventions; Measure improvements in the number of parks and green spaces accessible within a certain distance (e.g., within a 10-minute walk) for residents of underserved communities; Maintain community satisfaction with each park	Expanded tree canopy/green space has small carbon uptake effect; cooling of UHI has significant energy mitigation effect; goal consistent with 2011 long-range sustainability plan	
Initiate public information campaign focused on sustainable residential and commercial landscaping		2025		5 \$	VL	Improved landscape resilience can protect vulnerable communities from extreme weather, especially where permeable surfaces and tree canopy are increased; improved soil health and ecosystem resilience also protects local ecology		

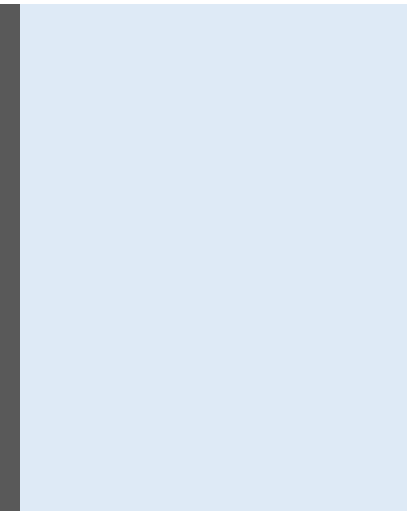
Action		Timeframe		Characteristics				Specific Feedback
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	(Please indicate responding Agency/Department)
MSW - Efficiency								
Promote repair and reuse opportunities	Waste resulting from disposal of durable goods (appliances, devices, etc.) can be challenging for MSW and increase lifetime emissions. DeKalb County can promote local businesses that repair devices and appliances as waste reducers, promote organizations that refurbish or recycle devices and appliances, and implement appliance/device repair training in schools	2030		5 \$	VL (community only)		Assess how affordable these repair services and resources are, particularly for low-income households; Assess the diversity of promoted businesses and organizations; Track distribution of repair training locations across the county to ensure equitable access.	Includes risks associated with promoting businesses
Promote waste reduction	Consumer and commercial waste includes large volumes of single-use packaging, such as plastic bags and containers that can be replaced with biodegradable or reusable alternatives. Promotion of alternatives can include awareness campaigns, outreach to retailers, bonuses for waste mitigation goals, or restrictions on the use of certain packaging (e.g., plastic bag bans)	2025		5 \$	VL - L (community only)		Accessibility of resources and support for individuals and businesses seeking to reduce waste (ex: multilingual awareness campaigns); Measure the participation rate in waste reduction campaigns and initiatives across the county to identify and address barriers to participation.	Additional benefits to Sanitation operation costs; e.g., plastic bag bans reduce costs of MRF operation
Deploy an exchange for donation of used or surplus equipment, furniture, materials, etc.	Develop a program to be operated by the County Sanitation Dept. to coordinate the donations of useful equipment, furniture, materials, and other durable goods to businesses or non-profits; program could eventually be expanded beyond the County/connected with others	2025		5 \$	VL (community only)		Assess the diversity of businesses/non-profits benefitting from donation exchange programs, with particular attention to disadvantaged communities;	DonateNYC is operated by the NYC Department of Sanitation; opportunities for community support
Require full or partial building deconstruction/ building waste recycling	Building demolition creates large volumes of landfill waste with embodied carbon, transportation emissions, and landfill gas emissions; deconstruction as an alternative reduces lifecycle emissions and landfilling emissions, and potentially reduces transportation emissions	2030		5 \$\$	L		Measurement of economic benefits and job creation opportunities associated with building deconstruction and waste recycling initiatives, particularly in the areas most burdened by landfills	Examples: Portland, OR; Charlotte, NC; opportunities for jobs training Extending single-stream recycling collection to all households served by sanitation was considered in the DeKalb County Government Long-Range Comprehensive Energy & Sustainability Plan (2011) and was found to have significant potential to reduce MSW operations
Increase recycling rates to reduce landfill emissions	Increase recycling capabilities and collections (e.g., by extending single-stream recycling collection to all county residents) to reduce landfilling (and associated emissions) and lifecycle emissions associated with waste products	2025		5 \$\$	VL - L (community only)		Engagement with underserved communities to address barriers to recycling participation; Accessibility and convenience of recycling infrastructure for residents and businesses (ex: how much does recycling cost, how far does someone need to go to recycle, etc.)	Unknown how current single-stream recycling is processed/capabilities of existing facility
Develop/Expand Materials Recovery Facility (MRF) at the Seminole Road Landfill	MRFs are facilities that screen and sort valuable materials out of MSW streams, enabling their recycling, diversion (e.g., for composting), or sorting; implementation of an MRF will enable much greater rates of both recycling and composting of MSW.	2035		10 \$\$\$	M			
MSW - Energy								
Expand LFG Energy Generation Capacity	Convert captured landfill gas (LFG) to usable methane for electricity generation or transportation fuel, rather than being released as emissions -- Already in use at Seminole Rd; consider expansion to maximize landfill capacity; explore PPAs with near-neighbors for power offtake (e.g., Intelsat, GSU Perimeter)	2025		10 N/A	L - H		Measure the equitable distribution of benefits from LFG including job creation, cost savings, and emissions reduction.	Unknown if

Onsite solar PV at Seminole Rd. facility	Evaluate potential for Solar PV deployment (County owned or leased) at old Seminole Road MSW Landfill; feasibility depends largely on site suitability characteristics including structural stability; deployment over long-term	2030	15 \$\$\$	M	Evaluate impact of solar PV deployment on grid resilience, ensuring widespread co-benefits are realized across nearby communities.	Seminole Rd. facility offers excellent solar resource, insolation, land availability and immediate access to transmission capacity
Track/optimize MSW operations energy use and efficiency	Evaluate current MSW collection, transportation, processing, and disposition processes for energy consumption; identify opportunities to mitigate energy use in processes	2025	5 \$	VL-L	Track reduction in energy consumption per unit of recycled material across different recycling locations, measuring for equitable distribution of improvements and benefits.	
MSW - Other Fugitive Emissions - Initiatives						
Provide municipal & commercial compost collection; eliminate landfilling of organic materials	Proper management of composting processes reduces methane emissions, improves soil carbon sequestration, and improves soil and plant health by reducing the need for synthetic fertilizers. Alternative to full-scale; a pilot program would establish regular food waste composting at small scale to develop internal knowledge and skills; potential candidates to include schools, hospitals, campuses, prisons, or even entire cities (e.g., Decatur).	2030	5 \$\$\$	M - H	Measure the pollution reduction and improved health outcomes in neighborhoods and communities most burdened by organic landfill waste; Assess plant and soil health for consistency across the county.	Applies to MSW service area (limited to uninc. & some cities); involves additional infrastructure, labor, etc.; well-established programs in peer jurisdictions; existing compost selection reduces bio load by ~1/2 (per long-range energy plan)
Establish food waste compost collection pilot program	Review Seminole Rd. Landfill Operations and ensure an adequate Leak Detection and Repair (LDAR) program is in place for LFG collection, clean energy facility gases, and methane/CNG products.	2025	5 \$\$	VL - M	Evaluate potential candidates for pilot program and prioritize those which are overburned and would benefit from this program.	
Ensure fugitive LFG emissions monitoring programs are sufficient		2025	5 \$	VL-M	Ensure current workforce is adequately trained to implement LDAR programming to promote equitable opportunities for developing careers in sustainability.	Emissions mitigation impact depends on current state
MSW - Other Fugitive Emissions - Operations						
Accelerate garbage deliveries/minimize in-transit anaerobic decomp	Maximizing garbage delivery/pickup route efficiency, increasing the number of garbage trucks to shorten routes and delivery times, and/or improving collection method to reduce emissions.	2035	5 \$	VL - L	Measure social, health, and environmental benefits associated with reduced in-transit waste decomposition, such as odor mitigation and GHG emission reduction, across the county to ensure equitable distribution of benefits.	Contingent on preexisting municipal compost collection program

Action		Timeframe		Characteristics				Specific Feedback (Please indicate responding Agency/Department)
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics	Notes	
Health - Heat	Planning							
Implement heat health strategy	Prepare for heat-related health incidents by improving communication about heat and heat risks, preparing a heat emergency strategy (incl. protocols for cooling centers, patient outreach, combined training etc.), promoting heat-resilient infrastructure (e.g. tree canopy, shaded transit shelters, etc.) across departments, and operational protections for County workers .	2025		5 \$	N/A		Important resilience action with disproportionately large benefits for vulnerable populations (incl. low-income, seniors, disabilities, etc.)	
Conduct targeted occupational heat health outreach	Initiate a program for targeted occupational safety outreach in the agriculture/horticulture/landscaping, forestry, hunting/fishing, construction, and waste/remediation sectors. Ensure that heat health and air quality emergencies are communicated to workers in these sectors via appropriate channels (incl. via licensing/permitting, mass & social media, labor unions and/or professional networks).	2025		5 \$	N/A		Focus on workers in the most vulnerable sectors	
Conduct targeted heat health outreach for medical facilities, nursing homes, and assisted living facilities	Initiate a program for targeted heat health outreach to the medical, geriatric care, and assisted living sectors. Include both year-round operational planning as well as channels for ensuring healthcare providers and facility operators are notified during extreme heat/air quality emergencies	2025		5 \$	N/A		Focus on elderly and disabled populations, among the most vulnerable for extreme heat/air quality emergencies	
Health - Heat	Energy Resilience							
Heat emergency power outage response plan	Create a heat emergency power outage response plan, either as an independent plan or as a component of a heat health strategy. The plan should identify the unique hazards associated with a partial or full power outage occurring during an extreme heat emergency. The plan should include specific actions to mitigate heat health impacts, including the distribution of generators for cooling centers, a system for notifying residents, and other prudent actions	2025		5 \$	N/A		Determine potential barriers and challenges community members may face during emergency power outages and strategize equitable solutions to ensure comprehensive and quality emergency plans are in place for all residents and community members. For example, ensuring transportation to cooling centers for community members without access to vehicles or developing emergency broadcasting in multiple languages according to community needs.	Opportunity to integrate into plans for new clean energy sources (e.g., through colocation of County DERs/battery storage facilities with emergency cooling centers)
Health - Public Health	Emerging Diseases							
Public health communication strategies (tick, mosquito-borne, etc.)	Continue/improve public communications strategies about risks of existing and emerging vector-borne diseases, including West Nile, and Lyme viruses as well as emerging disease risks such as Zika, Malaria, Chikungunya, Dengue, etc. for which risk increases with increased heat and shorter cold periods.	2025		5 \$	N/A		Develop public communications utilizing strategies that prioritize equitable accessibility; i.e., develop multilanguage marketing, use digestible language and meaningful visuals, include resources and references to publicly available resources and materials, etc.	
Ensure adequate disease monitoring	Consult with Dekalb dept. of Public Health to establish whether existing capacity for monitoring emerging diseases and public health threats is sufficient, given expectations of new diseases.	2025		5 \$	N/A		Determine potential barriers community members may face in recognizing and/or reporting symptoms of emerging diseases such that it may affect community wellbeing and efficient disease monitoring (i.e., barriers to health insurance coverage or systemic inequities in the healthcare diagnosis system, etc.)	



Ensure adequacy of insect control programs	Consult with Dekalb Public Health to ensure the adequacy of the existing mosquito control program and explore additional measures to control vectors of disease. Consider appropriateness of additional methods, including biological control methods, sterile insect technique, environmental control, and physical control.	2030	5 \$	N/A	Determine potential impacts of insect control programs on community health and wellbeing as well as local wildlife ecosystems to ensure no inadvertent negative side effects take place from measure implementation.
Health - Air Quality					
Implement improved air quality monitoring	Expand air quality monitoring networks to identify problem areas with dangerous concentrations of air pollutants (especially particulates) associated with high-traffic urban intersections and highways; leverage state and federal funding to support air pollution reduction efforts.	2025	5 \$	VL	Air quality monitoring is currently insufficient to identify highly localized dangerous concentrations of air pollutants, a problem that disproportionately affects vulnerable urban communities
Implement air quality emergency plans	Establish plans for air quality emergency days (days where localized AQI is expected to exceed dangerous thresholds) and implement actions to mitigate hazard (incl. reduced operations at major point sources and targeted low-speed zones in areas with worse air quality).	2025	10 \$	L	Targeted mitigation of dangerous concentrations of air pollutants (especially on high-heat days) can mitigate serious public health threats in vulnerable communities
					While identification of localized problem areas will have no direct effect on GHG emissions, follow-up actions to mitigate air pollutants will also reduce community GHG emissions



Action		Timeframe		Characteristics			Specific Feedback (Please indicate responding Agency/Department)	
Action Title	Description	Estimated Start	Duration	Cost	Emissions Mitigation	Equity Impact Metrics		Notes
Land Use - Planning	Zoning							
Sustainable zoning recommendations for energy/transportation emissions mitigation	Implement the Unified Plan's recommendations for sustainable zoning, emphasize zoning that reduces energy-related emissions from vehicle miles traveled, and building heat gain and loss; deemphasize zoning that preserves or exacerbates VMTs and building energy use	2025		10 \$		L-VH (community only)	Significant variation in scale, depending on intensity of policy; direct costs likely low, however additional litigation costs may be anticipated. EQUITY - goes to housing supply & affordability	
Focus Small Area Plans (SAP) on emissions mitigation	Implement the Unified Plan's SAPs, but with a focus on transportation and land-use emissions mitigation; all SAPs should have robust internal active transportation networks; corridor-based SAPs should be reimagined with active transportation corridors, crossings, and connections to surrounding communities; SAPs designed around highway/arterial corridors should be reconsidered	2025		10 \$		L-H (community only)	SAPs may accomplish much of sustainable zoning reform if new uses call for intensive density and transit connections; scale depends on intensity of policy; direct costs likely low, however additional litigation costs may be anticipated. EQUITY - goes to housing supply & affordability	
Concentrate new development in high-density, low-emissions activity centers	The Unified Plan indicates new developments should focus on existing activity centers, locations near transit stations, and high-capacity corridors; create compact, mixed-use developments which decrease reliance on single-passenger vehicles	2025		5 \$		H-VH (community only)	Transit-oriented high-density development achieves the most important goals of sustainable zoning reform and can be accomplished relatively quickly with overlays. EQUITY - goes to housing supply & affordability	
Implement higher density across all zoning classes	The most ambitious strategy, increasing density across all zoning classes would ensure future development maximizes efficient use of space and minimizes energy and transportation emissions in the residential sector; differential zoning intensification can apply to different classes, for example SFH zoning can be augmented with auxiliary dwelling units (ADUs), higher-intensity zoning can be similarly upzoned (either in terms of units per parcel, FAR/height limits, etc.)	2025		25 \$		M-VH (community only)	Track the change in available affordable housing units within high-density developments to ensure equitable access to housing for low-income residents; Measure inclusion and access to public green spaces and community amenities integrated into high-density development plans to enhance quality of life and mitigate environmental disparities.	
Concentrate new development in dense, transit connected town centers	Identify opportunities for concentrating all new development around transit facilities, bike and pedestrian paths, and other forms of public transit that minimize reliance on single-occupancy vehicle use; creating zoning overlays to allow much greater density, as well as master plans for new town centers that ensure walkable amenities.	2030	Ongoing	\$\$\$		M-VH (community only)	Differs "concentrate new development in activity centers" by exclusively focusing on transit connections and including the design and implementation of community master plans. Equity measures include evaluate frequency of service, affordability, and connectivity, to ensure that public transit meets the needs of low-income residents, people with disabilities, and communities of color.	
Zoning bonuses for alt. transportation facilities/compatibility	Offer incentives to developers to incorporate environmental protection and alternative transportation facilities into their plans; this is in line with the Future Land Use guiding principle to provide Density Bonuses to density bonuses for projects that provide community benefits.	2025	Ongoing	\$\$-\$\$\$		M (community only)	Evaluate increases in availability and accessibility of alternative transportation facilities in historically underserved neighborhoods and communities.	
Land Use - Energy	Zoning							
Zoning bonuses for islandable microgrids	Offer incentives to developers to incorporate islandable microgrids into plans for new developments	2030	Ongoing	\$\$-\$\$\$		M (community only)	Measure the increase in deployment and adoption of islandable microgrids within underserved neighborhoods and communities, particularly those vulnerable to power outages and energy insecurity.	
Zoning amendments to enable community solar	Amend current zoning regulations to enable community solar, which minimizes costly and burdensome solar modifications to homes by private owners and allows communities to enjoy greater access to solar energy	2025		5 \$		M-H (community only)	Measure the increase in development and deployment of community solar projects within underserved neighborhoods and communities, particularly those with limited access to rooftop solar and renewable energy resources; Measure participation rates and benefits of community solar programs among low-income residents, renters, and multifamily housing occupants, to track equitable access to clean energy.	
Land Use - Emissions	Fugitive Emissions							
Carbon sequestration practices for marginal/waste land/brownfield sites	Utilize carbon sequestration practices such as establishing forest and vegetation on brownfield sites, diverse plant communities, restoration of degraded land, and proper vegetation management.	2030	5, then ongoing	\$\$\$		L-M (community only)	Measure the amount of carbon dioxide (CO2) sequestered annually through implemented practices on marginal/waste land/brownfield sites, specifically focusing in underserved communities.	

"don't want it to apply to every small area plan"

Integrate tree canopy requirements into zoning code, especially in activity centers

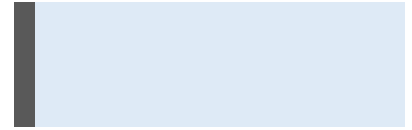
In line with the guiding principles of the Future Land Use Plan, tree preservation and landscaping standards should be built into zoning requirements. Tree canopy provides landscape-scale cooling, reducing energy burden, especially during peak summer months

2025

25 \$\$

L-M (community only)

Ensure tree canopy standards prioritize regions facing insufficient canopy coverage. Monitor community health impacts of improved regulations.



**Additional Feedback**

Please use this space to provide feedback (other than specific feedback related to an individual action). When contributing feedback, please indicate the reviewer's name and/or department.



Clean  
Energy  
DeKalb

[Newsletter](#) | [Survey](#) | [Past Events](#) | [Contact Us](#)

The Clean Energy Plan will set goals and outline steps to efficiently and equitably transition DeKalb away from fossil fuels.



Events





Email Address

First Name

Last Name

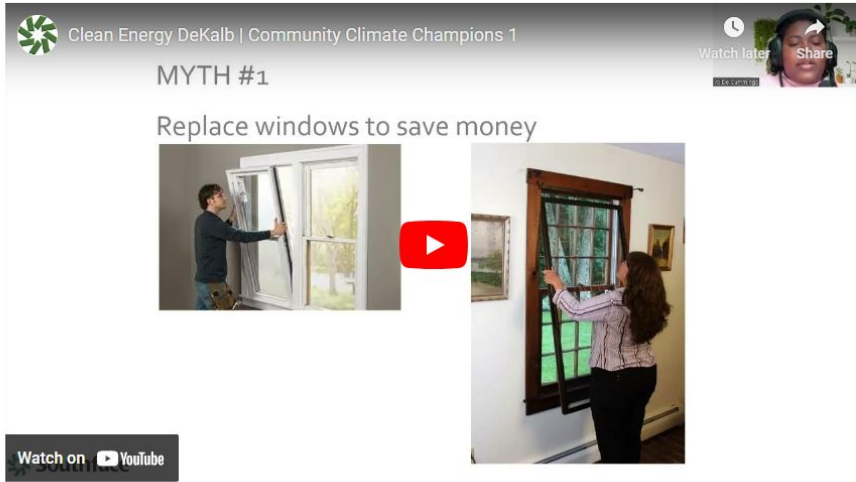
Organization

Subscribe



## Past Events

Community Climate Champions 1 | [Slide Deck](#)



Clean Energy DeKalb | Community Climate Champions 1

MYTH #1

Replace windows to save money

Watch later Share

Watch on YouTube

The image shows a YouTube video player interface. At the top left is the Clean Energy DeKalb logo and the text 'Clean Energy DeKalb | Community Climate Champions 1'. Below this is the title 'MYTH #1' and the subtitle 'Replace windows to save money'. The main content area features two side-by-side images: on the left, a man in a dark shirt is working on a white window frame; on the right, a woman in a light-colored shirt is working on a dark wood window frame. A red play button icon is centered between the two images. In the top right corner of the video player, there are icons for 'Watch later' and 'Share'. At the bottom left, there is a 'Watch on YouTube' button.



Watch later

Share

Anella Goetz, S...

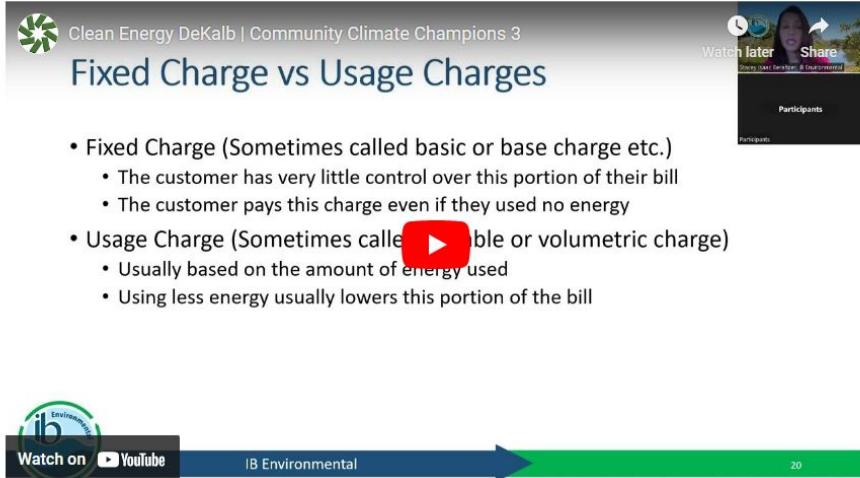
Uncle Bobby Southern

Houses are systems

What impacts how they use energy?


- Air sealing and insulation (called the Building Envelope)
- Heating, Air Conditioning, and Ventilation (HVAC) systems
- Water heating and piping
- Lighting and appliances






Clean Energy DeKalb | Community Climate Champions 3

## Fixed Charge vs Usage Charges

- Fixed Charge (Sometimes called basic or base charge etc.)
  - The customer has very little control over this portion of their bill
  - The customer pays this charge even if they used no energy
- Usage Charge (Sometimes called ble or volumetric charge)
  - Usually based on the amount of energy used
  - Using less energy usually lowers this portion of the bill

Watch later Share

Participants

Watch on  YouTube

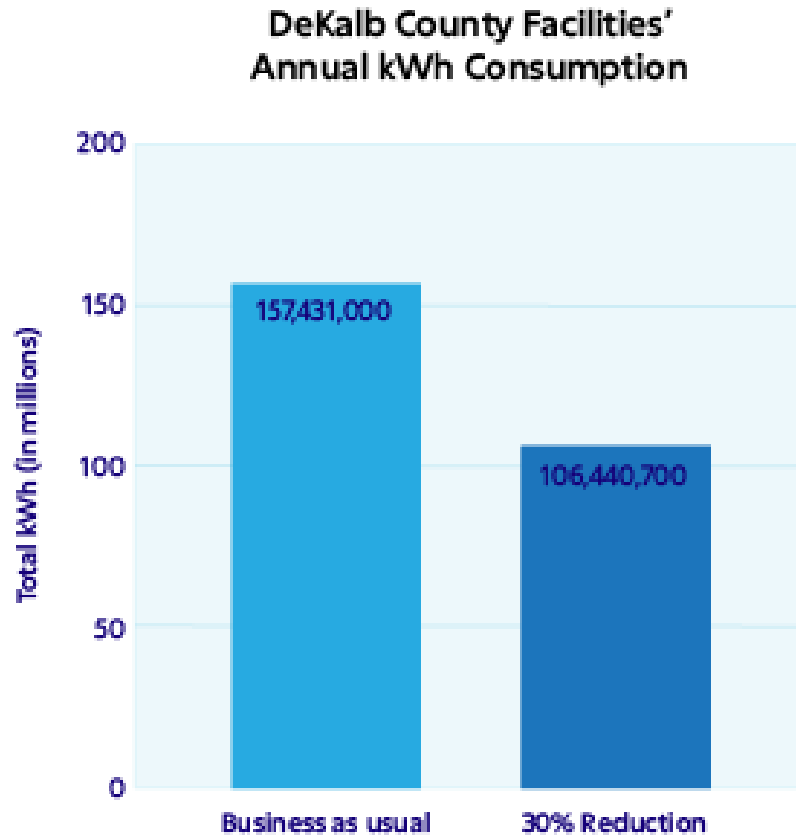
IB Environmental

20

## DeKalb County Operations Committee Feedback

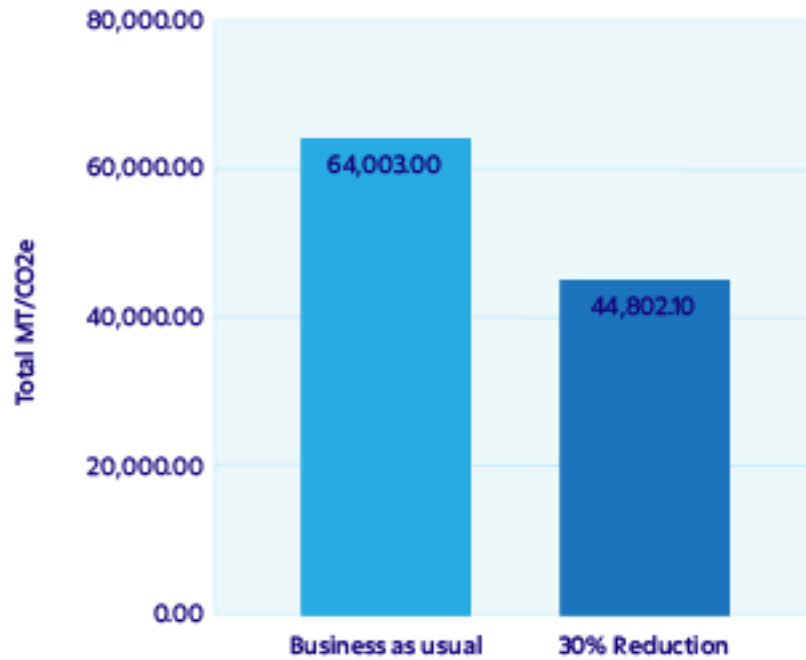
1. Addressing Cost for Sustainability Officer (Deputy COO)
  - National Average Salary: \$85,000 - \$140,000
  - Examples
    - i. Chief Resilience Officer - Mobile, AL: \$100,000 - \$120,000
    - ii. Director of Sustainability - King County, WA: \$115,000 - \$155,000
    - iii. Sustainability Officer - Maricopa County, AR: \$95,000 - \$135,000
    - iv. Chief Sustainability Officer - Orange County, FL: \$90,000 - \$130,000
  - DeKalb County Deputy COO
    - i. (Deputy COO - Police) hired in 2018: \$175,000
    - ii. CFI - \$219,278.35
  - Southface's recommendation
    - i. \$140,000 - \$160,000
2. Addressing Cost for Energy Manager
  - National Average Salary: \$80,000 - \$120,000
  - Examples
    - i. Energy and Sustainability Manager - City of Decatur: \$57,117 (2021)
      1. The City of Decatur's Operating budget is ~38,000,000
      2. DeKalb County's Budget ~ 1,700,000,000
  - Southface's recommendation
    - i. \$80,000 - \$100,000
3. Monetizing the Fiscal Impact of a 30% reduction in County Buildings by 2030
  - As part of the DeKalb Clean Energy Transportation Transition Plan, one key recommendation is to achieve a 30% reduction in energy consumption across County-owned buildings by 2030. Southface has analyzed and highlighted the financial and environmental impacts of reaching this goal.
  - In 2022, DeKalb County buildings consumed approximately 157,431,000 kWh of electricity, costing the County \$20,785,847.46 in utility bills. To calculate a \$/kWh rate, the total cost is typically divided by total consumption. However, since certain fixed fees remain constant regardless of consumption levels, Southface has determined that a more accurate estimate of the County's electricity cost is \$0.11 per kWh.

- The graphics below illustrate the potential impacts—both in terms of energy savings and financial benefits—of achieving a 30% reduction in energy usage by 2030.



-

### DeKalb County Facilities' Annual Emissions



○

### DeKalb County's Financial Outlook



○

- The graphic titled "DeKalb County's Financial Outlook" provides several key insights regarding the financial implications of energy consumption. It illustrates the total expenditure on electricity at the assumed rate of \$0.11 per kWh. If



DeKalb County successfully achieves a 30% reduction in energy consumption, it stands to gain approximately \$5,195,223.00 in annual savings. In addition to these savings, the graphic incorporates the Social Cost of Carbon, defined by the EPA as “a measure, in dollars, of the long-term damage done by a ton of carbon dioxide (CO<sub>2</sub>) emissions in a given year” (EPA). By achieving this energy reduction, the citizens of DeKalb County would avoid damages amounting to \$978,245.90 annually.

- The GoodUse team at Southface specializes in assisting nonprofits to reduce utility costs and reinvest those savings into their programs. On average, the GoodUse team invests about \$150,000 in a building with a size range of 5,000 to 15,000 square feet to achieve a 30% energy savings. Based on this average investment, DeKalb County would need to allocate approximately \$41,100,000 across its 274 buildings to attain a 30% reduction in energy consumption. Given the projected annual savings of \$5,195,223.00 from these investments, the simple payback period is estimated to be just under eight years.

### Central Staff's Questions

1. There are pictures with Commissioners on pages 12 and 44 of the plan. In an effort to be more equitable in messaging, are there pictures of all DeKalb Commissioners engaging with this project that could be utilized? If not, we would advise that no pictures with commissioners be included.
  - a. *Addressed in report*
2. PG. 18 refers to supplementary measures that the County could pursue; is there a current accounting from you all's research that shows what measures we are currently active in? PG. 30: In your research, are there other Community Assistance Programs that DeKalb County Government currently offers that could be mentioned in the plan?
  - a. **St. Vincent de Paul Utility Program:** *This program, available through the efforts of Commissioner Robert Patrick, specifically assists residents of District 1 who are facing financial hardships, particularly those with past-due water bills. To qualify, applicants must reside in District 1 and meet certain income criteria.*
  - b. **DeKalb County's Tree Protection Ordinance** *serves as a robust framework for environmental stewardship and community well-being, positioning it as a vital tool in addressing local climate resilience. The ordinance requires specific canopy coverage, regulates tree removal, and enforces replanting mandates, all of which*

*contribute to the preservation and expansion of the county's tree canopy. By safeguarding large "specimen trees" and promoting reforestation efforts, DeKalb enhances carbon sequestration, reduces urban heat island effects, and improves air quality—delivering measurable climate benefits. This ordinance operates as a community assistance program, offering ecological services that mitigate climate impacts and foster a healthier environment for all residents. Through these proactive measures, DeKalb County not only supports sustainable development but also ensures that the community enjoys long-term environmental and public health advantages.*

- c. **The Partnership for Community Action, Inc. (PCA)** administers the Weatherization Assistance Program (WAP) in DeKalb County, Georgia, helping low-income households improve energy efficiency through upgrades like insulation and HVAC improvements. This program reduces energy consumption and carbon emissions, contributing to climate change mitigation efforts. By lowering energy bills, it also alleviates the energy burden on vulnerable families, helping them achieve greater financial stability. Targeting low-income, elderly, and disabled populations, PCA ensures that energy-saving resources are distributed equitably, supporting both environmental sustainability and social justice in the community. PCA also offers utility assistance that can provide a one-time payment towards home utility bills for eligible households across DeKalb County and surrounding areas. Their programs are designed to alleviate the financial burden of utility costs for low-income individuals and families.*
3. PG. 22: Regarding potential sites for solar, were there any county-owned open fields reviewed as potential sites for larger solar farms? Additionally, what is the viability of floating solar farms at any of the County's lakes and ponds?

  - a. All solar installations were associated with building structures, and consequently, had an energy load that the solar systems would effectively offset. Under the Territorial Act, the Georgia Public Service Commission (PSC) restricts the use of the grid for distributed energy generation, such as from fields or water sources, permitting only minimal amounts above the anticipated energy load of a particular use. Therefore, DeKalb County would need to collaborate with a utility provider to address the costs associated with power from such facilities.*
4. PG. 24: Regarding the model ibE created which allows the input of any bill amount for residential utilities, could a tiered structure be included in this document that shows a spectrum of monthly costs for utility bills? (ex. \$150, \$200, \$250, \$300, \$400). Then these

numbers could give a broader representation of energy bills percentage of median household income for DeKalb residents. Staff also has questions regarding the \$150 bill assumption in the report.

a. *Addressed in report*

5. PG. 25: What equity initiatives could be used for renters? Is this an opportunity for the County to enter into agreements like we do with Watershed to subsidize or offer a tax abatement to apartment complexes that install solar?

a. *The split incentive problem, wherein landlords own and maintain energy-consuming equipment while tenants bear the cost of energy bills, presents a significant challenge to energy efficiency efforts. Many municipalities have implemented benchmarking and energy performance disclosure requirements to enhance transparency regarding rental unit costs. Furthermore, the Pay As You Save™ (PAYS™) program demonstrates effectiveness even in split incentive scenarios. Property owners with multi-unit developments represent a promising target audience for PAYS™ programs.*

*For most apartments, the initial focus should be on efficiency upgrades through such programs. However, the deployment of solar energy in apartment complexes is notably hindered by the split incentive issue. Offering Community Solar as a tenancy program may attract interest and participation.*

*In examining these challenges within other communities, we have encountered "equal protection amendment" concerns, where tax abatements for purposes other than economic development prove to be problematic.*

6. PG. 28: Please provide an additional explanation regarding the "20th percentile" metric when discussing water burden as a measure of affordability.

a. *In the water sector, many experts, including officials at the EPA, recognize the limitations of using the MHI as an indicator of affordability. In fact, EPA contracted with the National Academy of Public Administration (NAPA) to develop a report on the topic. The resulting report ("Developing a New Framework for Community Affordability of Clean Water Services"), published in 2017 stated that "MHI is a poor indicator of economic distress bearing little relationship to poverty or other measures of economic need within a community." The median, by definition, "ignores" half the population of an area. In other words, any income levels below the median are not reflected in the all-too-*

*common measures or MHI, and the water bill as a percentage of the MHI.*

*Following up on the NAPA report, several national water affordability experts presented an alternative to the MHI. Their 2019 report was called "Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector." Since every household needs water, the new measure was based on a lower income level than the median to "reflect the households that are most economically challenged." They selected the 20th percentile as a more relevant point to measure affordability. Their recommendation for a household affordability assessment methodology was two-fold:*

- i. The Household Burden Indicator (HBI), defined as basic water service costs (combined) as a percent of the 20th percentile household income (i.e., the Lowest Quintile of Income (LQI) for the Service Area); plus*
- ii. The Poverty Prevalence Indicator (PPI), defined as the percentage of community households at or below 200% of Federal Poverty Level (FPL).*
- iii. For simplicity, the PoPs model by ibE uses the HBI above*

7. PG. 31: Please review the dates listed as they conflict with pg. 32 of the document regarding community events.

*a. Addressed in report*

8. Could we include CPACE as well as PACE as a potential mechanism in the "invest in community" sections of the plan? Including CPACE allows consideration of commercial property owners. This was also a priority in DeKalb Board of Commissioners' legislative agenda to the State General Assembly in 2024. HB 206 CPACE legislation was passed by General Assembly during the 2024 Session -

<https://legiscan.com/GA/bill/HB206/2023>

*a. Addressed in question 9*

9. How can the County engage with the PAYS, PACE, and CPACE programs to ensure residents are aware of the benefits? Are they programs we can apply for and then fill with people or do we need the people to apply first?

*a. To implement a Commercial Property Assessed Conservation, Energy (C-PACE) program in DeKalb County, the program should be housed within the DeKalb County's Local Development Authority (Decide DeKalb), which is responsible for promoting sustainable growth and economic development. The Board of Commissioners must first pass an ordinance or resolution authorizing the C-PACE program, followed by entering into an intergovernmental agreement with the Development Authority to administer the program. This will allow the authority to finance energy efficiency, water conservation, and resilience improvements on*

*commercial properties, with repayment through special property assessments. The program aligns with climate change mitigation efforts by reducing greenhouse gas emissions and encouraging renewable energy adoption, directly benefiting the community's environmental goals. Additionally, C-PACE can support equity by making capital-intensive improvements accessible to businesses in underserved areas, fostering resilience in vulnerable communities. The final steps include creating a program guidebook, approving financing applications, and ensuring administrative oversight for long-term success. This initiative will lead to sustainable economic growth while addressing the county's climate resilience and social equity needs.*

- b. *PACE could also be housed in DeKalb's Local Development Authority if a partnership is made to ensure rigorous payback measures. PAYS would require partnering with a local utility and may need state-level support at the PSC to bring in our investor-owned utility. Recently, a PAYS™ pilot program was proposed, if deemed successful, this may be expanded.*
10. Is there any other way outside of the IRP to reduce or remove potential fees from homeowners who would like to install solar?
- a. *A Solarize program, such as **Solarize Decatur-DeKalb**, presents an effective solution for counties interested in reducing fees and making solar installations more affordable for residents. This program leverages group purchasing power to negotiate lower prices with solar installers, typically resulting in savings of 10-20% for participants. By organizing interested homeowners and businesses into a single campaign, Solarize programs streamline the process of solar adoption through pre-negotiated contracts and vetted installers, ensuring both quality and affordability. Additionally, this approach eliminates the need for residents to independently research and negotiate, making the solar transition process more accessible. For residents, joining is simple: they express interest through the program's portal, attend an information session, and receive a personalized site assessment and quote from the chosen installer. This approach not only reduces upfront costs but also supports long-term savings on energy bills, aligning with the county's goals of promoting renewable energy adoption and financial savings for its citizens.*
11. PG. 43 What does this chart tell us about our CO2 emissions?

- a. *This chart displays DeKalb County's operational emissions from both its buildings and transportation practices. A key takeaway from this chart is the tradeoff between building emissions and transportation emissions.*

*Historically, transportation emissions account for a large portion of any system's Greenhouse Gas (GHG) emissions. In this context, the chart is only examining the County's operational transportation emissions. What is significant here is the amount of GHG emissions attributed to county buildings and facilities. This chart demonstrates that DeKalb County's buildings and facilities are responsible for the vast majority of operational GHG emissions while transportation accounts for significantly less operational GHG emissions. This chart can be leveraged to inform clean energy investments to drive down higher GHG-emitting processes.*



## Feedback on Clean Energy Transition Plan draft:

Page #	Topic	Comment/s	Commenter
1	Title	<ul style="list-style-type: none"> <li>Calling this a “transportation” plan does not really make a lot of sense</li> </ul>	F. Lagaite (watershed)
22	Potential sites for solar	<ul style="list-style-type: none"> <li>Is the capacity shown for solar at the Polebridge WWT facility estimated based on the open fields there? If so, we need to check with watershed to see if the spray field permit will allow for solar installation on these fields.</li> <li>I don’t see the Snapfinger WWT facility listed here, and especially with their recent expansion, there seems to be great potential for solar at that location.</li> </ul>	K. Reed (Planning & Sustainability)
22	Potential sites for solar	<ul style="list-style-type: none"> <li>Polebridge has a far greater potential for solar generation given the nearly 600 acres available and not being used for their original purpose of land application of ww sludge. Focusing the solar installations here, rather than spreading across 39 sites, would be a more efficient method of managing and maintaining the subsequent solar infrastructure. Likely the entire 17,000 kW could be generated at this one location.</li> </ul>	F. Lagaite

39	Graphic on Sustainability Committee	<ul style="list-style-type: none"> <li>· Suggest adding Georgia Composting Council under “non-profit sector”</li> </ul> <p><i>We should try to stick to non-profits in the energy sector.</i></p> <ul style="list-style-type: none"> <li>· Will there be a similar graphic for the Environmental Justice committee?</li> </ul> <p><i>As the Enviromental Justice committee was added scope from a piece of proposed legislation we only integrated it as requested. The proposed legislation has a proposed structure.</i></p>	K. Reed
45	Milestones, topic = streets	<ul style="list-style-type: none"> <li>· “Adopt a Complete Streets Policy”—perhaps reword this to “Review and Update DeKalb’s Complete Streets Policy”</li> <li>· DeKalb County’s Complete Streets Policy was <a href="#">put into effect in 2014</a> and serves as a guide during the planning and development process.</li> <li>· Do they mean establish a ‘Minimum Tree Canopy’?</li> <li>· Will there be a Carbon Mitigation Plan? (Land Use)</li> </ul>	K. Reed
46	Milestones	<ul style="list-style-type: none"> <li>· In order to cut down on Confusion; we may want to consider addressing the Zoning Regulations separately from Land Use. Replace ‘Land Use’ with ‘Zoning’</li> </ul>	B. Brewer (Planning & Sustainability)
54	Appendix	<ul style="list-style-type: none"> <li>· Not included in this draft; cannot provide input</li> </ul>	K. Reed

45	Streets	· Include micro-mobility in goals/accommodate in Complete Streets	G. Kenna (Public Works)

## Planning & Sustainability Feedback

1. PG 22: Is the capacity shown for solar at the Polebridge WWT facility estimated based on the open fields there? If so, we need to check with watershed to see if the spray field permit will allow for solar installation on these fields. I don't see the Snapfinger WWT facility listed here, and especially with their recent expansion, there seems to be great potential for solar at that location.
  - a. *All solar installations were associated with building structures, and consequently, had an energy load that the solar systems would effectively offset. Under the Territorial Act, the Georgia Public Service Commission (PSC) restricts the use of the grid for offsite power charging, such as from fields or water sources, permitting only minimal amounts above the anticipated energy load of a building. Therefore, DeKalb County would need to ensure the energy generated would be mostly consumed by the Polebridge facility.*
  - b. *Snapfinger WWT Facility analysis added to the Plan*
2. PG 22: Polebridge has a far greater potential for solar generation given the nearly 600 acres available and not being used for their original purpose of land application of ww sludge. Focusing the solar installations here, rather than spreading across 39 sites, would be a more efficient method of managing and maintaining the subsequent solar infrastructure. Likely the entire 17,000 kW could be generated at this one location
  - a. *All solar installations were associated with building structures, and consequently, had an energy load that the solar systems would effectively offset. Under the Territorial Act, the Georgia Public Service Commission (PSC) restricts the use of the grid for offsite power charging, such as from fields or water sources, permitting only minimal amounts above the anticipated energy load of a building. Therefore, DeKalb County would need to ensure the energy generated would be mostly consumed by the Polebridge facility.*

3. PG 39: Suggest adding Georgia Composting Council under “non-profit sector.” Will there be a similar graphic for the Environmental Justice committee?
  - a. *For the purposes of the Plan, the project team chose to stick with non-profits that operate within the energy sector. This decision was made due to the large potential to achieve energy savings and climate goals. Though the Georgia Composting Council is a relevant non-profit, their expertise to advise on committee issues will be minimal given the heavy emphasis on energy usage which will directly drive down the energy consumption and GHG emissions.*
  - b. *As the Environmental Justice committee was added scope from a piece of proposed legislation we only integrated it as requested. The proposed legislation has a proposed structure.*
4. PG 45: Adopt a Complete Streets Policy”—perhaps reword this to “Review and Update DeKalb’s Complete Streets Policy” DeKalb County’s Complete Streets Policy was put into effect in 2014 and serves as a guide during the planning and development process. Do they mean establish a ‘Minimum Tree Canopy’? Will there be a Carbon Mitigation Plan?
  - a. *Addressed within the Plan*
5. Pg 45: Include micro-mobility in goals/accommodate in Complete Streets
  - a. *Addressed within the Plan*
6. PG 54 Appendix not included in this draft – cannot provide comment
  - a. *Appendix shared with Planning & Sustainability. Edits applied.*
7. Pg 46: In order to cut down on Confusion; we may want to consider addressing the Zoning Regulations separately from Land Use. Replace ‘Land Use’ with ‘Zoning’
  - a. *In order to keep consistency throughout the milestones, the project team chose not to make this change.*

## DeKalb County's Library Transition Plan 3.0

### A microcosm for regenerative landscape

DeKalb County has proposed transforming the landscapes of all 23 county libraries through a partnership with Roots Down. Commissioner Terry's initiative aims to integrate regenerative landscaping practices, demonstrating the broader carbon sequestration potential if adopted countywide.

Collectively, the 23 library sites encompass approximately 75 acres of landscape. The Library Transition concept aligns closely with Project Drawdown's *Multistrata Agroforestry* solution, which estimates a sequestration rate of 4.45 MTCO<sub>2</sub>e per hectare<sup>1</sup>. Based on this methodology, Southface calculated that the library landscapes could sequester roughly 135 MTCO<sub>2</sub>e. However, when compared to DeKalb County's total community-wide emissions of 8,797,366 MTCO<sub>2</sub>e, this impact alone is not substantial enough to be considered a standalone emissions reduction strategy.

By positioning the Library Transition as a model for a countywide shift to regenerative landscaping, its principles could be applied on a much larger scale, significantly enhancing DeKalb's carbon sequestration potential.

In collaboration with the DeKalb County Planning and Sustainability Department, Southface assessed this potential across the county's entire permeable, non-forested land area, which spans approximately 52.207 square miles. If all of this land were converted to regenerative landscaping, it could sequester an estimated 60,477 MTCO<sub>2</sub>e—enough to offset an estimated 95% of the county government's electricity consumption in 2022.

The DeKalb Library Transition Plan sets a precedent for the future of regenerative landscaping, demonstrating its potential for meaningful carbon sequestration. The following section outlines the calculations and mapping used to estimate the sequestration impact of these practices. This was conducted by DeKalb's Planning and Sustainability's Long Range Planning Division.

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<sup>1</sup> Han, R. F. Z. (2024, March 2). *Multistrata agroforestry*. Project Drawdown.  
<https://drawdown.org/solutions/multistrata-agroforestry>

## Open Space Analysis

### DeKalb County Long Range Planning and Sustainability Department

#### A. Data

- Import – NAIP Imagery Prepared and mosaiced by outside consultant
  - NAIP 2023 Ortho Imagery, false color, Leaf-on
  - Roughly 2 ft Resolution

#### B. Define Training Samples

- Training Samples Manager used to manage training sample for supervised classification, Pixel-Based Classification
- Land cover types: Over 50 samples per class
  - Forest
  - Impervious Surface
  - Open Space (potential planting area)
  - Shadows
  - Water

#### C. Train Classifier

- Samples used for training of classifier
  - **Support Vector Machine (SVM)** used due to its ability to handle large images
- Training performed 4X iterations to achieve usable result (This due to bad classifications in earlier classifiers, samples are added and run again.)

#### D. Classify Imagery

- DeKalb county boundary used to create a 2000m buffer to ensure overlap at the edge
- Classified image Clipped to DeKalb County boundary
- SVM model used in classification

#### E. Validation

- Compare the classified raster with ground truth data (Manual, visual inspection based on original imagery, performed on 2000m buffered area.)
  - Confusion matrix – 160 pts sample
  - Overall accuracy 95.6%
  - Kappa coefficient 93.8%
- Achieved by reclassifying Bare Soil to Impervious Surface due to similar raster values and misclassification, i.e. Roads were misclassified as Bare Soil at a high rate.
- Classification error – overlap from classified forest can increase the estimation of forest spaces and create underestimations of other cover types, especially open space as it has the largest amount of bordering area with forest spaces.



**F. Results**

Sq Mi	
54.41343779	Impervious Surface
134.4824187	Forest
46.22404142	Low Vegetation/Open Space
31.04948677	Shadows
4.751850657	Water
270.9212353	Total Sq Mi

Table a – Initial Square Mile calculations of cover types present in 2023 imagery.

	Area, Sq Mi	Relative Percent	Additional area from shadows, Sq Mi
Impervious Surface	54.41344	22.68%	7.043386004
Forest	134.4824	56.06%	17.40767766
Low Vegetation/Open Space	46.22404	19.27%	5.98333389
Water	4.751851	1.98%	0.615089209
		100.00%	31.04948677

Table b – Relative estimates of additional cover types from observed shadows.

Final Estimate

Square Miles	Surface Type
61.457	Impervious Surface
151.890	Forest
52.207	Low Vegetation/Open Space
5.367	Water
270.921	<i>Total</i>

Table c – Final cover classification estimates.

### G. Classification Image Examples

