



City of Knoxville

Energy & Sustainability Initiative

2014 Work Plan & Emissions Inventory Update



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


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Introduction

Since 2007, the City of Knoxville's Energy & Sustainability Initiative has helped make Knoxville a greener, more sustainable city – one where the economy, environment, and community can thrive today and in the future. Now in its seventh year, the Energy & Sustainability Initiative is championed by Mayor Madeline Rogero, staffed by two full-time employees in the City's Office of Sustainability, and supported by countless city staff and community partners who are committed to its success.

The Knoxville community can be proud of the progress it's made toward advancing sustainability. City operations are leaner, greener, and saving money while reducing impact on the environment. We have more and better infrastructure for folks who bike, walk, or use public transit to get around our city. As a community, we've dramatically increased the Knoxville area's renewable energy capacity and invested in energy efficiency projects for our homes and businesses. We've increased the amount of waste that is recycled or mulched instead of sent to a landfill. Our local economy is poised for growth in clean and advanced energy markets that offer good jobs for our local workforce.

This progress reflects the ambitious goals of the Energy & Sustainability Initiative: to reduce the greenhouse gas emissions associated with City operations and the Knoxville community each by 20% by 2020 relative to 2005 levels. This report outlines our progress toward these goals. Within City operations, we've reduced greenhouse gas emissions by 12.99%. We're on track but will need to sustain momentum to get to 20%. At the community level, we've reduced emissions approximately 7.75% relative to 2005 levels. We'll need continued commitment and increased collaboration with the private sector to bring community emission levels in line with our goals.

The Energy & Sustainability Work Plan summarizes the City's strategy for achieving its Sustainability goals. First published in 2011, the Work Plan reflects extensive community input and originally outlined 35 strategic action items through which the City would improve the sustainability of municipal operations and the larger Knoxville community. Today, many of those action items are complete or firmly underway. This 2014 Energy & Sustainability Work Plan Update summarizes the City's progress in implementing these projects and identifies next steps for those currently in progress. It also adds several new action items that leverage new opportunities and priorities. Although the update is structured to reflect the six original work plan categories, several action items have been re-categorized. There is also a new "Urban Agriculture & Landscape" section that highlights Mayor Rogero's administrative focus on urban food and green spaces. Designed as both a retrospective report card and a forward-looking planning document, this update, alongside the details provided in the original Work Plan, will guide the Office of Sustainability for years to come.

Community Engagement



Mayor Madeline Rogero and the Office of Sustainability prioritize engaging the community and building a culture of openness and transparency. By understanding community priorities and perspectives and by communicating openly about municipal initiatives, we will be more effective at implementing a sustainability program that reflects the values of Knoxville's citizens and businesses. The City can also promote information and resources to help local residents and businesses save money, innovate, and become more sustainable. The Office of Sustainability has engaged citizens by providing educational resources and incorporating citizen input into our work plan and leadership strategies. Going forward, we will expand community engagement activities to more directly encourage citizens to incorporate sustainability into their homes, workplaces, and neighborhoods.



Progress to Date

In 2013, TVA awarded Knoxville a Platinum rating in the TVA Valley Sustainable Communities program. This award – the first Platinum award in the state – celebrated the many sustainability programs and accomplishments in the Knoxville community. The award highlighted local commitment to integrating economic development principles into sustainability efforts in order to maintain Knoxville's economic competitiveness.



Want to Learn More?

To access the Citizen's How-to-Guide to Sustainability, learn more about the City's initiatives, and find other resources about sustainability in the Knoxville community, visit:

www.cityofknoxville.org/sustainability

Work Plan

1. Develop an Energy & Sustainability Implementation Advisory Board	Complete	Eight-member appointed board meets quarterly with the Office of Sustainability. First board appointed May, 2013.
2. Develop a Citizen's How - To Guide to Sustainability	Complete	Available online at: www.cityofknoxville.org/sustainability .
3. Information Sharing: Building Community Support and Political Will	Active	<p>Sustainability staff meet regularly with stakeholders, elected officials, and regional networks; multimedia utilized to communicate specific initiatives as needed.</p> <p><i>Next step: Promote Citizen's How-to Guide to Sustainability and other community educational resources.</i></p> <p><i>Next step: Improve Office of Sustainability web presence as new City website is rolled out.</i></p>
4. Information Gathering: Identifying Community Concerns	Active	<p>Sustainability staff actively participate in multiple ongoing community forums to gauge community interests and concerns.</p> <p><i>Ongoing: Engage stakeholders directly through IBM Smarter Cities and Urban Agriculture initiatives.</i></p>
5. Neighborhood & Workplace Engagement Programs	New	Launch Neighborhood & Workplace Engagement programs that motivate residents and businesses to take actions to advance sustainability goals. Programs could take the form of a sustainability challenge, neighborhood efficiency training programs, or a Knoxville-based mobile application that promotes sustainable living.



Energy



Whether at municipal facilities or in individual homes and businesses, wasting energy means wasting money. Because much of our energy comes from fossil fuels, wasting energy also creates unnecessary negative impact on the environment. To meet our sustainability goals and avoid unnecessary energy expenditures, the City has aggressively pursued energy efficiency projects and supported deployment of renewable energy systems. Initiatives such as our Solar America Cities program, our Energy Services Performance Contract, and several energy efficiency projects funded by Energy Efficiency & Conservation Block Grant dollars have helped the City save energy and promote cleaner and more efficient energy consumption in the community. Going forward, the Office of Sustainability will continue to champion efforts to reduce energy waste in city facilities, advance clean energy, and promote policies and programs that save energy and money by improving the efficiency of local buildings. A key priority will be working through the Knoxville-IBM Smarter Cities Challenge Initiative to improve the energy efficiency of Knoxville's aging housing stock.

**City Annual Energy Consumption
by Sector**



In Depth Look : Streetlights

Over 30,000 streetlights located on City right-of-way account for nearly 50% of the City's municipal electricity consumption. As LED lighting technology matures, the City is working closely with KUB to evaluate options for saving energy and cutting costs by updating streetlights to modern LED fixtures. Several LED streetlight pilot projects have demonstrated the savings potential of retrofitting fixtures while preserving light quality. The City and KUB are currently working together to negotiate the cost and strategy for retrofitting fixtures while complying with applicable regulations.

Progress to Date

Energy consumption at City facilities has fallen dramatically as a result of energy efficiency investments and programs. In the ten City buildings that use the most energy, energy consumption has fallen 16% since 2007.

Within the city, residents and commercial entities are also using less energy and water. Comparison of 2012 community consumption data with 2005 levels shows a 3% reduction in electricity consumption, a 6% reduction in natural gas consumption, and an 8% reduction in water consumption.

The City of Knoxville owns two buildings that are LEED (Leadership in Energy & Environmental Design) Certified. Both the John J. Duncan Jr. Knoxville Transit Station and Knoxville Convention Center have achieved LEED Silver Certification.

In 2012, Mayor Rogero partnered with Pathway Lending to launch the Mayor's Energy Efficiency Challenge and encourage local businesses to invest in projects that save energy and money. Since the launch, businesses in Knox County have received over \$1 million in Energy Efficiency Loans from Pathway Lending.

Work Plan

1. Building Code Updates	Complete	Knoxville City Council has adopted the 2012 International Energy Conservation Code. Amendments to these codes match the State and will continue to match or exceed State requirements.
2. Streetlight, Light Watchmen, and Parking Garage Lighting Retrofits	Active	<p>The City and KUB are negotiating the cost of converting existing streetlights to LED. The City has completed several LED retrofit projects and uses LED fixtures in all new street lighting projects.</p> <p><i>Next step: Determine appropriate utility rate and strategy for streetlight conversion.</i></p> <p><i>Next step: Pursue additional cost-effective energy efficiency projects, including opportunities identified through the City's Energy Services Performance Contract.</i></p>
3. Revolving Loan Pilot for Residential Energy Retrofits	Active	<p>The IBM Smarter Cities Challenge Initiative is evaluating financing solutions for energy efficiency investments.</p> <p><i>Next step: Work with local partners to develop energy financing options that make sense for all parties (such as on-bill financing, low-interest loans, or grant opportunities).</i></p>
4. Energy Management	Active	<p>Sustainability staff track energy usage at city facilities through EPA Portfolio Manager and Utility Trac Plus.</p> <p><i>Next step: Procure professional-grade utility management software.</i></p> <p><i>Next step: Evaluate options for hiring an Energy Manager for city facilities.</i></p>
5. Ratify Municipal Energy Efficiency Building Policy	New	Formalize municipal green building or energy efficiency policy for new and retrofit City buildings.
6. Community Energy Efficiency Programs	New	Build off of DOE Better Buildings Challenge and IBM Smarter Cities Challenge efforts to establish a more robust approach to community energy improvements. A comprehensive approach to community energy initiatives is a first step toward leveraging grants and other financing opportunities to promote energy efficiency in the community. Strategies include weatherization of older housing stock, private sector enrollment in the Better Buildings Challenge, and voluntary energy benchmarking.
7. Utility Partnerships to Advance Energy Efficiency	New	Partner with KUB to adopt shared goals for community energy efficiency, improve customer understanding of energy consumption, and increase energy efficiency investments.

Goods & Services



Working with Knox County, the Public Building Authority, and other community partners, the City has strengthened its consideration of environmental best practices in how we purchase and dispose of goods and the services we provide to the community. As a community over the last seven years, Knoxville has significantly increased the amount of waste recycled rather than sent to landfill. Diversion of waste through mulching and recycling has increased nearly 13% since 2005. Much of this progress can be attributed to the introduction of single stream recycling options that encourage more people to recycle by eliminating the need to separately sort paper, plastics, and metal products. More than 20,000 households participate in curbside recycling collection programs, and the City now offers recycling options at many municipal facilities.



1. Employee Purchasing Guide	Complete	Guide completed Fall 2010; available online to City departments.
2. Elimination of Unnecessary Disposables	Complete	Mayor Rogero adopted a Waste Prevention Policy for City administration in 2012.
3. Recycling Services Contractual Framework	Complete	Cooperative procurement language was developed in 2010 and is currently in use by PBA; City can access as necessary to secure recycling services.
4. Downtown Permanent Recycling	Complete	Single stream recycling bins placed downtown in 2011 for use by residents, businesses, and pedestrians.
5. Recycling at City Parks	Active	Several City ball fields currently offer single stream recycling options. <i>Next step: Plans are underway to offer recycling at all City parks, with expected rollout in Spring, 2014.</i>
6. Event Recycling in Public Spaces	Active	Special events at City facilities are provided clear stream recycling containers to promote waste diversion. Recycling resource guides are distributed at City Special Events meetings to increase understanding of how to plan for effective recycling. <i>Next step: Increase event planner and attendee understanding of recycling options in order to increase recycling participation at special events.</i>
7. Commercial Single Stream Recycling Downtown	New	Expand capacity for commercial recycling collection in downtown business district where feasible. A primary constraint is the amount of space available for recycling storage between collections.

Work Plan

8. Recycling at City Facilities	Active	<p>City facilities managed by PBA are outfitted with single stream recycling options. Varying levels of recycling options are available at other city facilities.</p> <p><i>Next step: Expand employee education on recycling options to increase participation.</i></p> <p><i>Next Step: Expand recycling options at City facilities to include single stream recycling options.</i></p>
9. Electronic Waste Recycling	Active	<p>The City collects e-waste at waste collection centers and through occasional special events; all e-waste collected by the City is properly disposed of and processed. City and Knox County have recently partnered to launch http://knoxecycles.org/, a comprehensive web resource for local e-waste recycling.</p>
10. Integrating Green Purchasing	Active	<p>Green purchasing guidelines are integrated in official City Procurement Policies & Procedures Manual; solicitation notices include language encouraging the use of environmentally preferable products and services.</p> <p><i>Next step: Staff training on and tracking of responsible purchasing practices.</i></p> <p><i>Next step: Incorporate sustainability into annual business networking event to brand city bids as promoting sustainability best practices.</i></p>
11. Sustainable Purchasing Staff Position	Evaluation Phase	<p>Operational budget limits opportunity for new staff positions or responsibilities. As Green Purchasing practices are more thoroughly integrated into City Procurement, the Office of Sustainability will continue to assess the need and opportunity for adding Sustainable Purchasing staff.</p>
12. Expand Curbside Recycling & Increase Options for Waste Diversion	New	<p>Leverage re-bid of City Waste contracts in 2016 to expand single stream curbside recycling to all residences and incorporate best practices for waste diversion and treatment.</p>

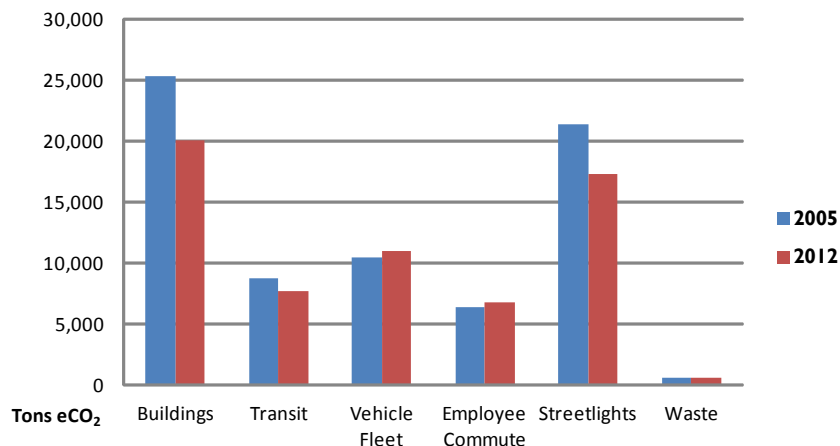
Progress to Date

As a result of new and improved City recycling programs, the Knoxville community has increased the amount of waste recycled through City programs by over 63%. More than 20,000 Knoxville households are doing their part by recycling through the City's curbside recycling collection service. Downtown recycling programs captured over 321 tons of waste in 2012. This is a dramatic improvement since 2005, when there were no recycling drop-off centers or services provided by the city in the downtown core.

Energy & Emissions Inventory Update



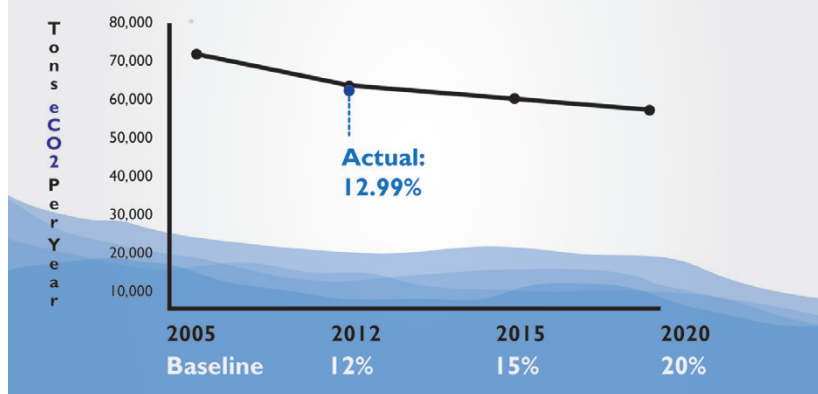
City of Knoxville Operations eCO₂ tons



Progress to Date

The City of Knoxville first began measuring municipal and community energy consumption and related greenhouse gas emissions in 2007. The original Energy & Emissions Inventory was based on 2005 data and allowed the City to understand municipal utility expenditures and identify opportunities to save money and reduce environmental impact. This inventory update, based on 2012 data, quantifies the reductions achieved in energy consumption and greenhouse gas emissions at both the municipal and community levels.

Energy & Sustainability Emission Reduction Goal: City
20% Decrease from 2005 Level



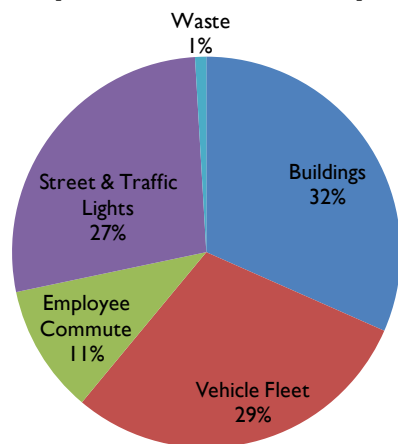
The City currently hosts 5 solar arrays on City property, with a total capacity of 147 kW. These arrays are performing as expected and generate over 187,000 kWh of energy annually. The City and its partners sell the solar energy back to TVA and as of November, 2013 have received over \$76,000 in revenue since installing the systems.

As a municipality, the City has reduced its energy consumption by 38,310 million British Thermal Units (MMBtu)—a 6.48% reduction over 2005 levels. The total energy saved annually is equivalent to over 11.2 million kWh—enough to supply electricity to the Safety Building (Police HQ) for over 8 years. The greenhouse gas emissions associated with City operations fell 12.99%, or 9,438 tons eCO₂, which is slightly ahead of the emission reduction goal for 2012.

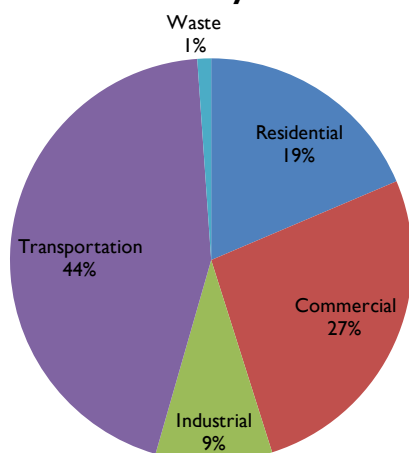
At the community level, energy consumption in 2012 fell in the residential and commercial sectors by approximately 2% and 13%, respectively, relative to 2005. Industrial energy consumption increased a little over 16%. Energy use for transportation decreased over 3.5%, largely due to improvements in the average fuel economy of vehicles. Compared to 2005, greenhouse gas emissions for the Knoxville community were 7.75% lower in 2012. In addition to energy savings, changes to the Tennessee Valley Authority's (TVA) electricity production portfolio also contributed to these emission reductions, as multiple coal-fired power plants were retired, retrofitted, or replaced by natural gas, nuclear, and renewable sources of energy in recent years.



2012 City eCO₂ Emissions by Sector



2012 Community eCO₂ Emissions by Sector



What is eCO₂?

Different greenhouse gases—like carbon dioxide (CO₂), methane, and nitrous oxide—warm the atmosphere at different rates. eCO₂ is a common unit that accounts for the atmospheric impact of each gas relative to that of carbon dioxide and allows all greenhouse gas emission to be quantified using a single number.

Knoxville Convention Center

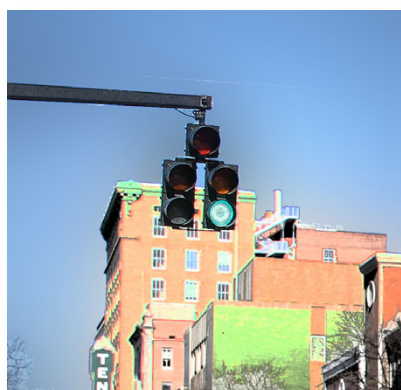
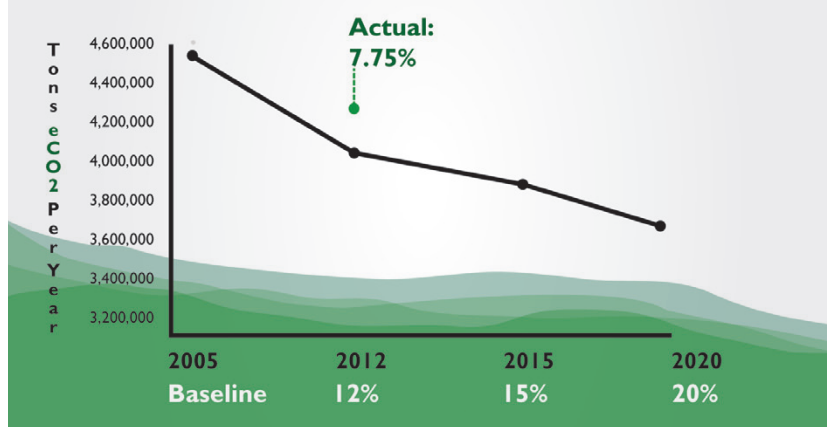
The Knoxville Convention Center received LEED Silver Certification in 2013. As a result of energy efficiency upgrades to the building, the Knoxville Convention Center saves a significant amount of energy and money compared to its pre-LEED baseline.

2012 Annual Savings	
Kilowatt Hours	916,741
Therms	68,379
Dollars \$	149,603



Energy & Sustainability Emission Reduction Goal: Community

20% Decrease from 2005 Level



Traffic Signals			
2005		2012	
KWH	Cost	KWH	Cost
312,338	\$14,966.61	39,220	\$2,656.37
312,338	\$14,966.61	39,220	\$2,552.05
282,112	\$13,518.49	39,220	\$2,534.79
312,338	\$14,966.61	39,220	\$2,754.03
302,263	\$14,483.92	39,220	\$2,870.90
312,338	\$14,966.61	39,220	\$2,950.52
302,263	\$14,483.92	39,251	\$2,995.24
312,570	\$14,977.73	41,925	\$2,801.01
312,570	\$14,977.73	41,925	\$2,865.57
302,487	\$15,278.09	44,630	\$3,128.56
312,570	\$15,787.29	44,630	\$3,074.56
302,487	\$15,278.09	44,630	\$3,204.88
3,678,673	\$178,651.70	492,311	\$34,388.48
Annual kwh Reduction		Annual Cost Savings	
3,186,362.19		\$144,263.22	
86.62%		80.73%	

The City has saved significant money by retrofitting traffic signals to LED lighting technology. A direct comparison of utility bills for traffic signals between 2005 and 2012 shows an 86% reduction in energy consumption—saving the city over \$144,000 annually.

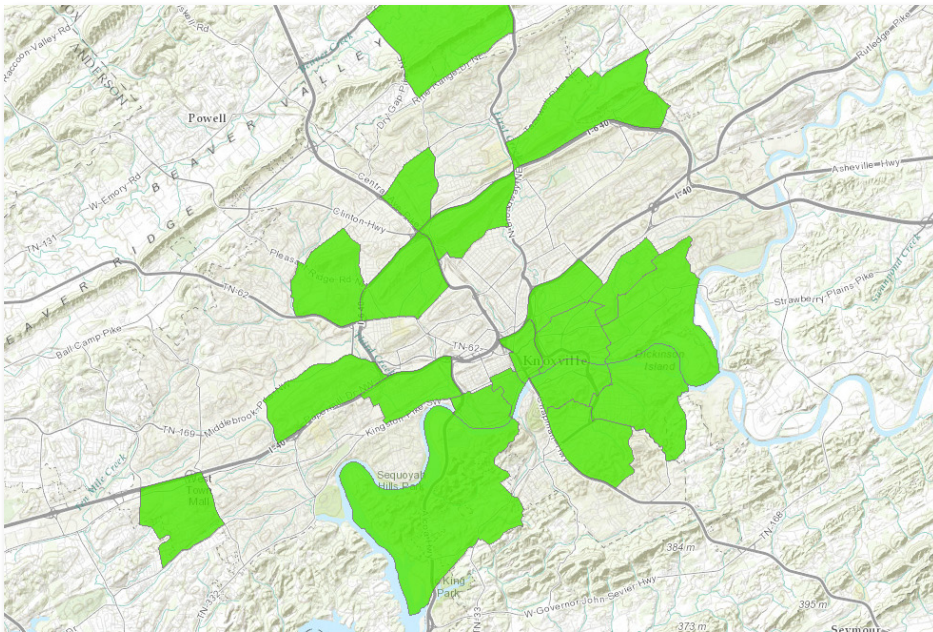
Urban Agriculture & Landscapes



Mayor Madeline Rogero champions an increased focus on urban landscapes and opportunities to improve urban food systems. In 2012, the City hired its first Urban Forester to develop and implement a more strategic approach to improving the City's tree canopy. Also in 2012, the City was a top-20 finalist in the Bloomberg Philanthropies' Mayors Challenge Competition, which mobilized strong community partnerships to increase access to healthy foods in Knoxville's urban core and foster a sustainable approach to local agriculture. Although Knoxville did not win the award, the City and its partners are still committed to achieving the vision of creating a unique business model that encompasses the entire urban food cycle by connecting land, farming jobs, processing facilities, food transit, sale, and composting.

Progress to Date

The City's tree inventory includes over 8,500 trees on City right-of-way. Of these, 277 produce edible fruits including persimmons, mulberries, walnuts, pecans, serviceberries, and ginkgoes.



This map shows the location of food deserts in the Knoxville area.

In Depth Look: Food Deserts

Knoxville, like many cities, has neighborhoods in our urban core that have been designated as "food deserts" - places with few local grocers, where food prices are often high, and healthy food choices are narrow. Many of those neighborhoods also suffer blight from abandoned or neglected properties and face other symptoms of disinvestment.

To address food deserts, the City of Knoxville has been working with community partners to connect land, farming jobs, processing facilities, food transit, sale, and composting to create a complete, sustainable urban food cycle that eliminates areas of food insecurity. These efforts will help increase affordable, healthy food access, particularly in places that lack these resources currently.

To get involved, visit:

www.knoxfood.org



Work Plan

1. Increase Native, Edible, and Sustainable Plantings in Rights-of-Way and Public Locations	Active	Hired in 2012, the City's Urban Forester selects species that contribute toward a safe and healthy urban forest. Native and edible species are evaluated as options for right-of-way landscaping.
2. Encourage Responsible Home Landscaping with Natives and Edibles	Active	Educational materials for home landscaping with native and non-invasive species are available on City Sustainability and Urban Forestry websites. <i>Next step: Improve and promote public educational materials about responsible home landscaping, with emphasis on how to select and care for edible and native species.</i>
3. Community Gardens	Active	City hosts Americorps VISTA staff to promote and remove barriers to community gardens and urban food systems. <i>Ongoing: Continue to work with partners to remove barriers to community gardens.</i>
4. Urban Food Overlay/ City Gardening Lease	New	Develop an Urban Food Overlay, city gardening lease, or a similar policy framework to facilitate urban agriculture and cultivation of unused city-owned land. Connect urban food resources to reduce or eliminate urban food deserts through zoning and enabling ordinances.
5. Pesticide/Herbicide Policies	New	Formalize landscaping protocols for city properties and rights-of-way to ensure safe and proper use of pesticides and herbicides and compliance with environmental best practices.



Infrastructure



The City can promote sustainability in the community by embedding support for low-impact design and alternative transportation options into how we design and manage public infrastructure. This section addresses stronger integration of sustainability principles into actions like street design, utility infrastructure planning, and maintenance of city infrastructure. Some actions are already underway. City Engineering, for example, regularly evaluates the feasibility of adding bike lanes and sidewalks to city road projects and looks for opportunities to utilize green infrastructure to manage stormwater. Going forward, the Office of Sustainability will continue to integrate sustainability best practices into infrastructure design and management, including consideration of how to address expected climate changes in infrastructure investment and management plans.

Progress to Date

Between 2005 and 2012, the City added 7.8 miles of new greenways and bike lanes, bringing the City's total to 44 miles. The City has also improved bike parking facilities. In addition to sidewalks, which are added and improved each year as budgets allow, these amenities promote healthy living and alternative transportation choices.



In Depth Look: Green Infrastructure

Although it can be understood in many ways, for the purposes of this Work Plan, "Green Infrastructure" means systems or practices that utilize natural processes to capture, treat, or reuse stormwater runoff on the site where rain falls. Green infrastructure strategies range widely in scope and size and include projects like rain gardens, green roofs, permeable surface paving, and vegetated road medians. Under the Clean Water Act, the City must limit the pollution that enters local waterways via stormwater runoff. Meeting this standard with traditional "gray infrastructure" (pipes, culverts, retention basins, etc.) can create significant costs for both the City and private developers. Green infrastructure provides an alternative method to meet stormwater standards while often saving money and creating environmental and social benefits, such as improved air quality, increased open space, and streetscape beautification.

Work Plan

1. Multimodal Accommodation in Rights-of-Way	Active	<p>The City evaluates all road projects for the potential to incorporate bike lanes and sidewalks. Revised subdivision regulations are expected to require sidewalks in all new subdivisions.</p> <p><i>Ongoing: Continue evaluation and pursuit of opportunities to increase multimodal transit options throughout the city.</i></p>
2. Utility Coordination in Rights-of-Way	Active	<p>City Engineering and KUB meet monthly to coordinate projects, including an annual assessment to avoid unnecessary costs and delays.</p> <p><i>Next step: Standardize protocol for incorporating sustainable design and management principles into right-of-way projects.</i></p>
3. Stormwater Management Strategy Updates	Evaluation Phase	<p>Enforcement of new EPA stormwater regulations may require revision to the City's strategy for stormwater permitting.</p>
4. Strengthen Local Climate Resiliency	New	<p>As climate changes, the City's infrastructure and disaster plans need to be able to handle future conditions. A first step is to understand and communicate the impacts of climate change in Knoxville. Then, we need to integrate climate considerations into city-wide planning efforts.</p>
5. Promote Utilization of Green Infrastructure for Stormwater Management	New	<p>Increase use of green infrastructure on public property; enact policies or incentives to encourage property owners to utilize green infrastructure for on-site stormwater management.</p>



Transportation



Drivers in Knoxville drove over 2.9 billion miles in 2012. These miles—primarily fueled by gasoline and diesel—account for just under 44% of the community’s greenhouse gas emissions. This section identifies actions to offer Knoxville’s residents and workers more options for getting where they need to go. For the City, this includes motivating employees to use alternative commute options and making our City fleet cleaner and more efficient. At the community level, the City already promotes the use of public transit and has improved and expanded infrastructure for bikes, pedestrians, and other alternatives to single-occupancy vehicles. Going forward, we will build on this progress to further diversify the City’s fleet and ensure that we’re offering more and safer options for those that want to reduce their driving footprint.



Progress to Date

Largely as a result of improved Federal fuel economy standards, fuel consumption and resulting air pollutant emissions have decreased over 3.5% since 2005. These decreases are beneficial for local air quality and help reduce the community’s overall greenhouse gas emissions.

Community-wide participation in SmartTrips indicates that more citizens are using alternative transportation methods to travel to and from work. Between 2005 and 2012, SmartTrips participation jumped over 71%. These alternative commuters helped reduce congestion and air pollution and avoided over 700 tons of greenhouse gas emissions in 2012.

In 2012, the City and the University of Tennessee partnered with ZipCar to launch the community’s first public car-sharing program.

The City hosts 24 publically accessible charging stations for electric vehicles (EVs) on municipal property. These chargers support both residents and visitors that drive EVs and were used 943 times in 2013.



Work Plan

1. City Staff Dedication to Promote Alternative Transit	Complete	The City hired a full-time Alternative Transportation Engineer in 2013 to advance transportation infrastructure for bicyclists, pedestrians, and transit users.
2. Develop a City Green Fleet Policy	Complete	A City Green Fleet Policy was developed in May, 2011. Fleet purchases are evaluated for fuel economy and right-sized for the job.
3. City Employee Alternative Transportation Benefits	Active	<p>This activity aims to increase commuting options for City employees by promoting alternative transportation methods and exploring the viability of telecommuting and flexible work schedules. It also seeks bus pass benefits for City employees, which was previously its own action item.</p> <p><i>Ongoing: Promote Smart Trips participation through City Benefits orientation.</i></p> <p><i>Next Step: Embed incentives for alternative commuting into benefits package.</i></p>
4. City and Community Anti-Idling Policy Implementation	Active	<p>The City has adopted an anti-idling policy for City vehicles. A planned automatic-vehicle-location system will help the City Fleet department track and avoid unnecessary idling and trips. Next step: Increase employee education and develop mechanisms for enforcement.</p> <p><i>Next step: Develop resources to educate the community on the environmental, economic, and social impacts of vehicle idling.</i></p>
5. Bike Sharing	New	Work with local partners to facilitate the launch of a bike sharing program. Explore options to leverage a public bike share program as a substitute for a City employee bike pool, which was a recommended action in the 2011 Work Plan.



Sustainable Growth



Recent regional efforts such as Plan East Tennessee (PlanET) and Together! Healthy Knox asked the public to define a common vision for the future of local landscapes, health, and economies. A recurring theme in these public conversations is that thoughtful and sustainable zoning, construction, and redevelopment strategies will be necessary to achieve many of the community's health, safety, and environmental goals. This section outlines ways that the City can implement these strategies to help ensure that Knoxville's future reflects community values and allows for social and economic vitality over the long term. These actions will be implemented in close partnership with groups such as the Knoxville-Knox County Metropolitan Planning Commission (MPC), Knox County Health Department, Knoxville-Knox County Community Action Committee (CAC), residential and commercial contractors, and other local stakeholders.



In Depth Look: PlanET

Plan East Tennessee (PlanET) is an ambitious process to imagine the future of East Tennessee and to chart a path to reach a shared vision. Initiated in 2011, PlanET's public input and planning process called upon nearly 10,000 local residents, businesses, and non-profit groups to define how East Tennessee should advance over the coming decades. Out of this community input arose a shared, regional vision that:

East Tennessee will be recognized internationally as a premier region of choice and opportunity by virtue of our exceptional quality of life, scenic natural beauty, unique cultural heritage, healthy people and places, strong institutions, talented workforce, entrepreneurial spirit, and prosperous economy.

This vision is achievable—but not inevitable. Building on public input, PlanET also defined specific goals, objectives, and strategies that will help the region realize its potential. Achieving the vision will require commitment and coordination among all regional decision makers, including public agencies, the private sector, non-profit groups, and individual citizens.

Learn more at:

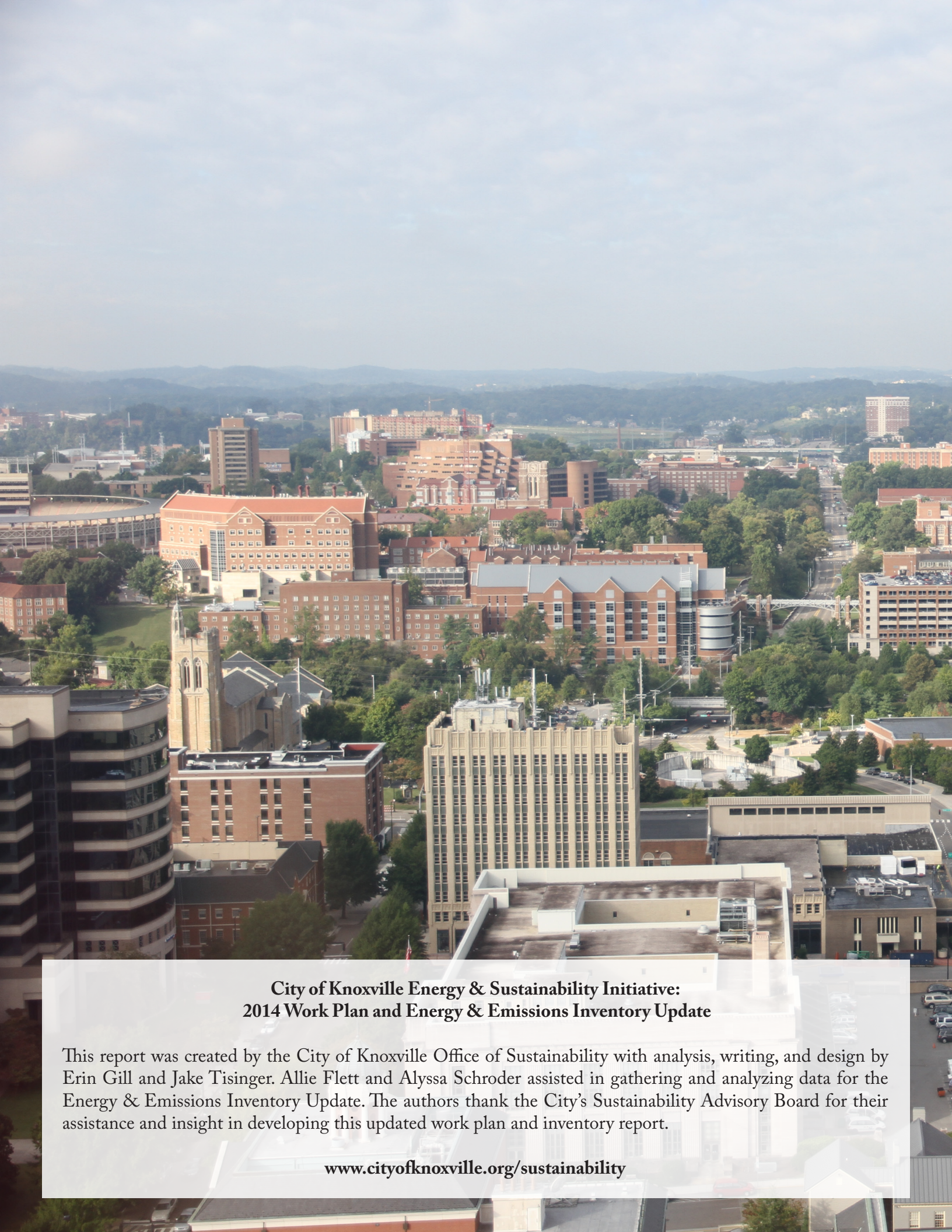
<http://www.planeasttn.org/>



Work Plan

1. Metropolitan Planning Commission – City of Knoxville Interaction Policy	Active	<p>Initiatives such as PlanET have helped identify ways for the City and MPC to more directly connect budgets with action toward City goals.</p> <p><i>Next step: Work within upcoming budget cycles to align MPC's planning projects with City budget and priorities.</i></p>
2. Green Building Code Incentives	Active	<p>In 2013, the City convened a task force to perform an in-depth review of the International Green Construction Code (IgCC) and recommend strategies for integrating green building codes, starting with voluntary approaches.</p> <p><i>Next step: Propose City Council adoption of 2012 IgCC for voluntary compliance in early 2014. Next step: Create policies and programs to incent voluntary compliance with the IgCC and green building best practices.</i></p>
3. Subdivision Regulation Revision	Active	<p>City Engineering is working with MPC to revise subdivision regulations.</p> <p><i>Next step: Work with MPC in 2014 to adopt and enforce revised subdivision regulations.</i></p>
4. Metropolitan Planning Commission Sustainable Code Policy	Active	<p>Multiple community studies by groups such as PlanET and the Knox County Health Department have identified ways to modify local zoning codes to better promote active living, healthy eating, and sustainable development.</p> <p><i>Next step: Work with MPC and other stakeholders to evaluate proposed zoning code changes and adopt where feasible.</i></p>





**City of Knoxville Energy & Sustainability Initiative:
2014 Work Plan and Energy & Emissions Inventory Update**

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