Meeting Flow

- Review and prioritize (May)
- Transportation meetings to identify challenges/opportunities (July)
- Deep dives by Working Groups (August)
- Working Groups report out at next MCC meeting (September)
- Council final comment (January)

We are here
Baseline Surveys

Surveys were used to
• Develop a better understanding of local priorities
• Identify critical working group members
• Develop early feedback on potential blind spots in strategies

Surveys results are NOT
• A final ranking
• A commitment to specific phrasing
• A substitute for in-depth discussion
## Baseline Rankings

<table>
<thead>
<tr>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the % of trips taken by walking or biking</td>
</tr>
<tr>
<td>Make public transit investments that significantly enhance coverage, service quality, frequency, and/or speed</td>
</tr>
<tr>
<td>Create voluntary program(s) capable of significantly accelerating community adoption of electric vehicles</td>
</tr>
<tr>
<td>Significantly expand electric vehicle charging infrastructure in publicly accessible locations</td>
</tr>
<tr>
<td>Partner with major local commercial fleet operators to transition to electric vehicles</td>
</tr>
<tr>
<td>Require new construction and major renovations to be &quot;Electric Vehicle Ready&quot;</td>
</tr>
<tr>
<td>Establish strategy and/or policy to improve greenhouse gas impacts of autonomous vehicles</td>
</tr>
<tr>
<td>Modify parking prices in core locations and other dense areas of the community</td>
</tr>
<tr>
<td>Establish policies to optimize urban freight movement (eg. time of delivery, location consolidation)</td>
</tr>
</tbody>
</table>
- Consensus among top 2
- Only slight variance in overall top 4 between two groups
- Only 4 strategies received “Not Important” votes
- No unique write-in strategies, but recommendations to be more open minded on fuel sources
Thank you!

Transportation Working Group

Melissa Allen-Dumas, Oak Ridge National Lab
Nicholas Bradshaw, City of Knoxville
Chris Cherry, University of Tennessee
Caroline Cooley, Bike Walk Knoxville
Karen Estes, Knox CAC - Transit
David Greene, University of Tennessee
Jon Livengood, City of Knoxville
Kent Minault, Sierra Club Harvey Broome Group
Jonathan Overly, East Tennessee Clean Fuels Coalition
Melissa Roberson, Knoxville Area Transit
Virginia Salazar Buda, East Tennessee Clean Fuels Coalition
Jeff Welch, Knoxville Regional Transportation Planning Organization
Belinda Woodiel-Brill, Knoxville Area Transit
Ellen Zavisca, Knoxville Regional Transportation Planning Organization

Equity Working Group

Kendra Berry, Great Schools Partnership
Claudia Caballero, Centro Hispano de East Tennessee
Terrence Carter, Knoxville Area Urban League
Misty Goodwin, Knoxville-Knox County Community Action Committee (CAC)
Rick Held, Community Voices
JD Jackson, Socially Equal Energy Efficient Development (SEEED)
Stanley Johnson, Socially Equal Energy Efficient Development (SEEED)
Dave Ndiaye, University of Tennessee
Albert Nelson, Knoxville-Knox County Community Action Committee (CAC)
Janea Peterson, Knoxville Area Urban League
June Rosten, AFL-CIO
Calvin Skinner, NAACP

...and the Energy and Waste members who have been working with sustainability staff!
Equity Working Group

Erin Rose, Three³
Meaningfully Integrating Equity into Climate Action

**Equity in Process and Benefits**

- Designing solutions
- Participation + Decision-making
- Implementation
- Monitoring + Evaluation
- Outcomes (measurable and subjective)

**Informing Action**

- Through EWG engagement of frontline communities
- Sharing collected information in advance of technical subcommittees
- Feedback on proposed climate strategies and their anticipated impacts on affected communities and groups
- Proposing indicators for monitoring and evaluation; signals for tracking burden + benefits over time
Considering the Multiple Dimensions of Equity

- Social + Cultural Justice
- Economic + Distributive Justice
- Environmental Justice
- Parity in Participation
- Legal Protections and Provisions
The Multiple Elements of Equity

Social + Cultural Justice
- Standard of living; Quality of life
- Physical, mental, emotional + developmental health + wellbeing
- Psychosocial stress; financial stress
- Environmental stress from racism
- Racial, health + educational disparities
- Childhood outcomes
- Collective efficacy; social cohesion
- Educational opportunities + attainment
- Community assets + needs
- Perception of community as desirable place to live

Environmental Justice
- Climate resilience
- Adaptive capacity
- Healthy + clean environments where people live, learn, work + play

Economic + Distributive Justice
- Just allocation of resources
- Employment opportunities
- Workers’ rights
- Economic opportunities
- Infrastructure investments
- Access to Innovations
- Inclusion of black/minority-owned businesses and banks
- Land + property value impacts; dispossession + displacement
- Housing, energy and food security
- Poverty + income inequalities
- Remedy for harm

Parity in Participation
- Agency in life decisions
- Power in decision-making
- Designing solutions
- Capacity-building + empowerment
- Civic engagement
- Social + political participation
- Just transition to a low-carbon economy
- Citizen research + monitoring

Legal Protections + Provisions
- Human rights
- Protections from harm
- Resources for social provisions

Climate resilience
Adaptive capacity
Healthy + clean environments where people live, learn, work + play
Agency in life decisions
Power in decision-making
Designing solutions
Capacity-building + empowerment
Civic engagement
Social + political participation
Just transition to a low-carbon economy
Citizen research + monitoring
Human rights
Protections from harm
Resources for social provisions

EWG Next Steps

• Refine definition of equity within the context of climate planning and action
• Establish goals + equity principles for guiding our work
• Selection of frameworks and equity ‘lenses’ for identifying and considering ‘frontline’ communities; both spatially and temporally
• Engage with communities and groups to better understand lived experiences and importance of targeted sectors (e.g., transportation)
• Develop screening questions for proposed climate action strategies
• Agree upon evaluation criteria + scoring approach for judging proposed climate strategies
Questions?
Panel Presentations
Alternative Fuels

Kent Minault
Sierra Club

David Greene
UTK

Jonathan Overly
East TN Clean Fuels Coalition
Panel: Alternative Fuels

Kent Minault
*Sierra Club*
As impacts from COVID-19 continue to evolve, LADWP prioritizes the health and safety of our customers and employees. We urge all customers and contractors to exercise caution and follow guidance from local, state, and federal health emergency response agencies to protect themselves and their employees.

We value your participation in the Charge Up LA! Program and appreciate your interest in advancing electric transportation in LA. Please be aware that the program is not suspended, but we expect application and rebate processing time to be significantly extended as a result of the COVID-19 pandemic. We are working diligently to process applications and are prioritizing payments.

We appreciate your understanding and patience during these uncertain times. Together we’ll get through this crisis. If you have questions about any of our Charge Up LA! Programs, please email pluginla@ladwp.com or call (866) 484-0433.

LADWP now offers a rebate up to $1,500 through the Used EV Rebate Program for used electric vehicles (EVs) purchased on or after September 1, 2019!

Eligibility
You do not need to be an LADWP account holder to apply for the rebate, but your permanent residence must receive electric service from LADWP.
Panel: Alternative Fuels

David Greene
UTK
First, STEP 1.

Build public consensus.

David L. Greene, Sr. Fellow, Howard H. Baker, Jr. Center
Research Prof., Civil and Environmental Engineering
The University of Tennessee, Knoxville
“The single most important area of action is efficiency improvement in all sectors.”
Global Energy Assessment, *Toward a Sustainable Future*.

“**Two Trillion Gallons**: Savings from fuel economy improvements to US light-duty vehicles, 1975-2018”,
The single biggest opportunity for car and light truck ghg reduction today is the **Hybrid**. Average reduction: **-33%**. Average payback period: 3.7 years. Market share 2.3%.  
(ornl: [www.fueleconomy.gov](http://www.fueleconomy.gov), $2.50/gal.)

### Vehicle Comparison

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Non-hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Honda CR-V Hybrid LX AWD</td>
<td>2020 Honda CR-V AWD LX</td>
</tr>
<tr>
<td>2.0 L, 4 cyl, Automatic (variable gear ratios), Regular</td>
<td>1.5 L, 4 cyl, Automatic (variable gear ratios), Turbo, Regular</td>
</tr>
</tbody>
</table>

**Combined MPG**

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Non-hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>29</td>
</tr>
</tbody>
</table>

**MSRP**

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Non-hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>$27,750</td>
<td>$26,550</td>
</tr>
</tbody>
</table>

The hybrid vehicle's MSRP is **$1,200** more.

**Fuel Cost Savings with Hybrid**

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Non-hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>$5.88</td>
</tr>
<tr>
<td>Monthly</td>
<td>$25.50</td>
</tr>
<tr>
<td>Yearly</td>
<td>$306</td>
</tr>
</tbody>
</table>

**Payback Period**

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Non-hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9 years</td>
<td>2.5 years</td>
</tr>
</tbody>
</table>
Panel: Alternative Fuels

Jonathan Overly
East TN Clean Fuels Coalition
Technical Working Group – Transportation

>> Fleets and the Public

Goal – “Provide high-level, cross-sector leadership to chart a path to reduce Knoxville Community emissions 80% by 2050.”

Audience – Fleets of all sizes in the community, as well as individual drivers

Suggested Approach – Develop robust approach to advancing plug-in electric vehicle (PEV) adoption and use, but don’t leave out the other vehicle technologies and alternative fuels that could have significant impacts toward GHG reductions in the next 5-10 years

Like fleets, consumers consider payback or ROI in their decision. Need to show a variety of fuel or technology options... not just one.
Technical Working Group – Transportation

>> Fleets and the Public

- Multiple fuels can help provide GHG reductions and ROI in the ramp-up years to having more widely available LD and HD models of PEVs.
- Numbers in table below comes from comparing each fuel/tech. to gas/diesel as well as the other options.

<table>
<thead>
<tr>
<th>Fuel/Technology</th>
<th>Current GHG Savings (%)</th>
<th>Renewable?</th>
<th>Vehicle CapEx</th>
<th>Station CapEx</th>
<th>Fuel Cost Savings Opportunity</th>
<th>Ease of Access, fuel</th>
<th>Ease of Switch</th>
<th>Cost of Switch</th>
<th>Maintenance Costs</th>
<th>Value of GHG reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>CNG</td>
<td>12%</td>
<td>No</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3-5 *</td>
<td>3-5 *</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RNG</td>
<td>40 - 70%</td>
<td>100%</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3-5 *</td>
<td>3-5 *</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>E85 ethanol</td>
<td>40%</td>
<td>80%</td>
<td>0</td>
<td>2-3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Electric - LD</td>
<td>50%</td>
<td>Depends</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Electric - MD, HD</td>
<td>50%</td>
<td>Depends</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2-3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Hybrids, more FE</td>
<td>30%</td>
<td>No</td>
<td>2-3</td>
<td>---</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Propane autogas</td>
<td>0 - 15%</td>
<td>No</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Diesel</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>B20 biodiesel</td>
<td>15%</td>
<td>20%</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B100 biodiesel</td>
<td>75%</td>
<td>100%</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Renew. diesel</td>
<td>70%</td>
<td>100%</td>
<td>0</td>
<td>0</td>
<td>-2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>-1</td>
<td>5</td>
</tr>
<tr>
<td>LNG</td>
<td>No</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Technical Working Group – Transportation

>> Fleets and the Public

To repeat – A single fuel/technology focus will exclude many potential Actors for Change in the community (fleets and individuals).
Trans. Working Group should convene and discuss specific examples of various fleet and individual vehicles to assess options.

✓ For fleets, must evaluate from their perspective to maintain operations
✓ Knoxville has a public CNG station and discussions are underway to further investigate how to offer RNG to fleets and through the station
✓ Funding could become available to help establish more public E85 and B20 stations in Knoxville (state funds)
✓ LD PEVs are closing in on mass adoption, however MD and HD fleet vehicles are commonly 2-3 times the cost of their diesel counterparts
✓ ETCF has partnerships with many PEV, CNG/RNG, biofuel entities
✓ ETCF manages Tennessee-centric annual funding program that could help many fleets in Knoxville “make the switch”
Transit & Transportation Demand Management

Chris Cherry  
UTK

Jeff Welch  
Knoxville Regional TPO

Belinda Woodiel-Brill  
KAT
Panel: Transit & Transportation Demand Management

Chris Cherry

UTK
Meeting GHG Reduction Goals Will Require Massive (not marginal) Reductions in Transportation Emissions (from today)

Knox(ville) and metro growth

Per Capita Travel Demand

Electric Grid Emission Factors

Car Emission Factors

Chris Cherry: Professor in Civil Engineering (Transportation) at UTK. cherry@utk.edu
A (Sustainable) Sustainable Transport Model

Avoid  Shift  Improve

A-S-I APPROACH

AVOID / REDUCE
Reduce or avoid the need to travel

SHIFT / MAINTAIN
Shift to or maintain share of more environmentally friendly modes

IMPROVE
Improve the energy efficiency of transport modes and vehicle technology

System Efficiency  Trip Efficiency  Vehicle Efficiency

Image source: GIZ
Figure 2. Central estimates of life-cycle GHG emissions of urban transport modes per pkm

Source: OECD International Transport Forum. Life Cycle Impacts of Personal Transport Modes (preliminary)
Figure 2. Central estimates of life-cycle GHG emissions of urban transport modes per pkm

Well subscribed transit

Ubers
Incl. automated Ubers

Low Occupant Cars
(including EVs)

“Micromobility”
Contemporary (Knox Co) Example

Image Source: The Compass
Panel: Transit & Transportation Demand Management

Jeff Welch
Knoxville Regional TPO
The Landuse Transportation Connection

• Historically Separated Landuses (Zoning)
  • Limited Connectivity to Development
  • Lack of Mode Choices
  • Increased Vehicle Miles Traveled
City of Knoxville
New Zoning Code

• Provides Mixed Use Opportunities

  • Along our Major Corridors

  • Mixed Use Nodes

  • Incentivizes Off Street Parking Reduction
Lack of Transportation Infrastructure

- Development without Sidewalks
  - Roads and Streets
  - Residential and Commercial
  - Sidewalks not Required in the County
Panel: Transit & Transportation Demand Management

Belinda Woodiel-Brill
KAT
Balancing Frequency versus Coverage Area

Source: *Human Transit* by Jarrett Walker
Transportation is now the largest contributor to U.S. greenhouse gas emissions. - EPA
Bicycle/Pedestrian Transportation

Ellen Zavisca
Knoxville Regional TPO

Caroline Cooley
Bike Walk Knoxville
Panel: Bicycle / Pedestrian Transportation

Ellen Zavisca
Knoxville Regional TPO
Major arterials make up a small percentage of street mileage, but account for a big percentage of pedestrian & bicyclist crashes & fatalities.

- **29%** of all pedestrian/bicycle crashes
- **39%** of all fatalities resulting from pedestrian or bicycle crashes
- **6%** of surface street miles

Knoxville Major Arterials

- 89% of the crashes that involved people walking or riding bicycles on major arterials occurred on six streets:
  - Broadway
  - Chapman Highway
  - Cumberland Avenue
  - Kingston Pike
  - Magnolia Avenue
  - Western Avenue
Panel: Bicycle / Pedestrian Transportation

Caroline Cooley
Bike Walk Knoxville
Are Walking and Biking More Dangerous than Driving?

• Every day, nearly 100 people die violently on roadways in the United States, and more than 6500 are injured.

• Motor vehicle crashes are the leading cause of death for Americans aged between 16 and 24 years and the second leading cause for children aged 4 to 15 years.

It is 11x more likely for a pedestrian or bicyclist to be killed in a traffic crash compared to a motorist.

4 out of 1,000 car-only traffic crashes result in death.

47 out of 1,000 traffic crashes involving a person walking or riding a bicycle result in death.
What is Vision Zero?
Goal: Zero Traffic Deaths and Serious Injuries

**TRADITIONAL APPROACH**
- Traffic deaths are INEVITABLE
- PERFECT human behavior
- Prevent COLLISIONS
- INDIVIDUAL responsibility
- Saving lives is EXPENSIVE

**VISION ZERO**
- Traffic deaths are PREVENTABLE
- Integrate HUMAN FAILING in approach
- Prevent FATAL AND SEVERE CRASHES
- SYSTEMS approach
- Saving lives is NOT EXPENSIVE
How Do We Achieve Vision Zero?

Political Commitment
- Mayoral Leadership
- All government departments

Task Force
- Government department staff
- Community stakeholders

Action Plan
- Data Driven Approach

Equity and Engagement
- Community Involvement

Road Design and Speed
- Prioritize people not cars

Example Strategies:
- Lower speed limits on arterials to maximum 35 mph; allow 20 mph in neighborhoods
- Identify high crash injury/death locations; prioritize improvements
- 5-lane cross-sections prohibition policy
- Analyze/identify/improve high risk pedestrian signals and intersections
- Educate and engage community volunteers re: Vision Zero neighborhood benefits
- Address barriers for walking/biking to school
Vision Zero Strategies = Fewer Greenhouse Gas Emissions
Questions?
Facilitated Discussion
Facilitated Discussion

Ground Rules

• Be respectful
• Discussion will be limited to GHG mitigation strategies for transportation – other topics will be pinned to the “Parking Lot”
• We are primarily looking to identify points of leverage for each strategy
General Reactions

- What stands out to you about the results?
- Based on what you’ve heard today (or since the last meeting), has your viewpoint changed?
- Is there anything that’s missing from this list the group should be considering (i.e., are there new strategies?)

<table>
<thead>
<tr>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the % of trips taken by walking or biking</td>
</tr>
<tr>
<td>Make public transit investments that significantly enhance coverage, service quality, frequency, and/or speed</td>
</tr>
<tr>
<td>Create voluntary program(s) capable of significantly accelerating community adoption of electric vehicles</td>
</tr>
<tr>
<td>Significantly expand electric vehicle charging infrastructure in publicly accessible locations</td>
</tr>
<tr>
<td>Partner with major local commercial fleet operators to transition to electric vehicles</td>
</tr>
<tr>
<td>Require new construction and major renovations to be &quot;Electric Vehicle Ready&quot;</td>
</tr>
<tr>
<td>Establish strategy and/or policy to improve greenhouse gas impacts of autonomous vehicles</td>
</tr>
<tr>
<td>Modify parking prices in core locations and other dense areas of the community</td>
</tr>
<tr>
<td>Establish policies to optimize urban freight movement (eg. time of delivery, location consolidation)</td>
</tr>
</tbody>
</table>
Challenges/Barriers

- What resources challenges do we need to consider?
- Where does the investment need to come from?
- What time parameters should be considered? How should short, medium, and long-term be defined?
- Who are the critical stakeholders?

<table>
<thead>
<tr>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the % of trips taken by walking or biking</td>
</tr>
<tr>
<td>Make public transit investments that significantly enhance coverage, service quality, frequency, and/or speed</td>
</tr>
<tr>
<td>Create voluntary program(s) capable of significantly accelerating community adoption of electric vehicles</td>
</tr>
<tr>
<td>Significantly expand electric vehicle charging infrastructure in publicly accessible locations</td>
</tr>
<tr>
<td>Partner with major local commercial fleet operators to transition to electric vehicles</td>
</tr>
<tr>
<td>Require new construction and major renovations to be &quot;Electric Vehicle Ready&quot;</td>
</tr>
<tr>
<td>Establish strategy and/or policy to improve greenhouse gas impacts of autonomous vehicles</td>
</tr>
<tr>
<td>Modify parking prices in core locations and other dense areas of the community</td>
</tr>
<tr>
<td>Establish policies to optimize urban freight movement (eg. time of delivery, location consolidation)</td>
</tr>
</tbody>
</table>
Opportunities

• Are there specific strategies for which the City currently seems well positioned?

• Are there specific strategies for which private sector leadership and resources are better suited? Are there people on the council who can take a leadership role?

• What are the points of leverage for each opportunity (existing infrastructure, market awareness, community buy-in)?

<table>
<thead>
<tr>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the % of trips taken by walking or biking</td>
</tr>
<tr>
<td>Make public transit investments that significantly enhance coverage, service quality, frequency, and/or speed</td>
</tr>
<tr>
<td>Create voluntary program(s) capable of significantly accelerating community adoption of electric vehicles</td>
</tr>
<tr>
<td>Significantly expand electric vehicle charging infrastructure in publicly accessible locations</td>
</tr>
<tr>
<td>Partner with major local commercial fleet operators to transition to electric vehicles</td>
</tr>
<tr>
<td>Require new construction and major renovations to be &quot;Electric Vehicle Ready&quot;</td>
</tr>
<tr>
<td>Establish strategy and/or policy to improve greenhouse gas impacts of autonomous vehicles</td>
</tr>
<tr>
<td>Modify parking prices in core locations and other dense areas of the community</td>
</tr>
<tr>
<td>Establish policies to optimize urban freight movement (eg. time of delivery, location consolidation)</td>
</tr>
</tbody>
</table>
Wrap Up & Next Steps
Action Items

Transportation Working Group Meeting is August 11 - 1:00-3:00 ET
*MCC members are encouraged to attend, but their participation is not required

Customer Satisfaction Survey
Thank you!

Brian Blackmon
Director, Office of Sustainability
bblackmon@knoxvillete.gov
www.knoxvillete.gov/sustainability