

Mayor's Climate Council

May 17, 2021



Agenda

- Mayor's remarks
- Review of process / past year
- Priorities and evaluation
- Next steps

Mayor's Climate Council: Our Role

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

1

Identify and prioritize emission reduction strategies.

2

Discuss opportunities and challenges for proposed actions.

3

Make final recommendations to inform City work plan and long-term vision.

A starting point

Staff started with USDN High Impact Practices (HIPs)

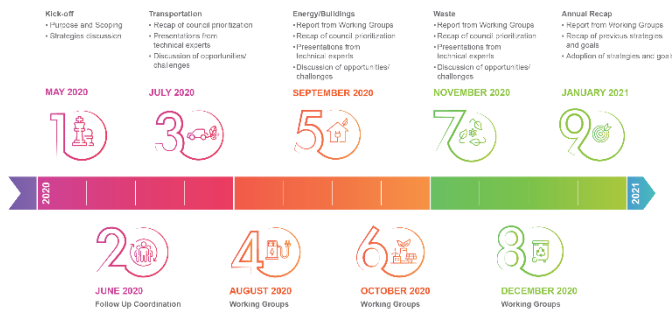
- Draws upon leading Climate Action Plans and studies.
- Effective emission reduction strategies.
- Established by national local sustainability experts and practitioners.

What HIPs are not

- A blueprint to achieve our goals
- 100% comprehensive list of all possible mitigation strategies
- ***Reflective of unique Knoxville-area priorities***

Summary of the past year

Mayor's Climate Council Timeline



- **65** participants
- Over **35** community organizations
- **20** meetings
 - 6 executive
 - 14 working group
- **508** subject matter surveys (131 EWG, 377 public)

Multi-pronged approach

When the updated work plan is finalized:

1. Public unveiling of plan; Update to City Council on priorities
2. Update City's website to reflect new plan priorities and additional metrics.
 1. Draw direct connection to budget and funding in a dynamic setting
 2. Highlight partner programs that support those goals
 3. Create and add trackers for additional metrics identified

PAUSE

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Questions about the past year and/or process?

NEXT: Priorities & Evaluation

Centering Equity

- The Equity Working Group:
 - (1) conducted several surveys to gather community input and
 - (2) applied screening questions to proposed strategies
- Three3 delivered to staff a memo summarizing EWG findings and recommendations in April.
- Staff deferred to EWG rankings overall.
 - Strategies “unlikely” to advance equity outcomes were removed with one exception.
 - Minor phrasing changes made (e.g. highly related priorities were combined)

Priorities summarized

Transportation Priorities	
<p>Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the number of trips taken by walking or biking</p> <p>Measuring success: Miles of improvement, mapping corridors of connectivity, estimating pedestrian and bicycle trips</p>	
<p>Make public transit investments that significantly enhance coverage, service quality, frequency, and/or speed</p> <p>Measuring success: Number of trips, average route frequency, number of bus stop improvements, Community VMT</p>	
<p>Significantly accelerate community adoption of electric vehicles</p> <p>Measuring success: Number of EV registrations, number of EVSE by level of service, EVSE distribution</p>	
<p>Partner with major local commercial fleet operators to transition to electric vehicles</p> <p>Measuring success: EVSE on commercial property, EV registrations</p>	

1. Potential emission reduction
2. Length of time experts thought it would take to start
3. Potential community benefit / likeliness to advance positive equity outcomes

Priorities summarized

Transportation

1. Expand bike/ped facilities
2. Make investments in public transit
3. Accelerate community adoption of EVs
4. Work with commercial fleets to transition

Buildings/Energy

1. Commercial and multifamily energy reduction
2. Residential energy reduction
3. Amplify opportunities to invest in renewables
4. Promote opportunistic thermal electrification

Waste

1. Commercial organic diversion
2. Increase recycling
3. Promote consumption-reduction
4. Residential organic diversion

Public theme alignment

Transportation

1. Expand bike/ped facilities **(#1)**
2. Make investments in public transit **(#3)**
3. Accelerate community adoption of EVs **(#2)**
4. Work with commercial fleets to transition (N/A)

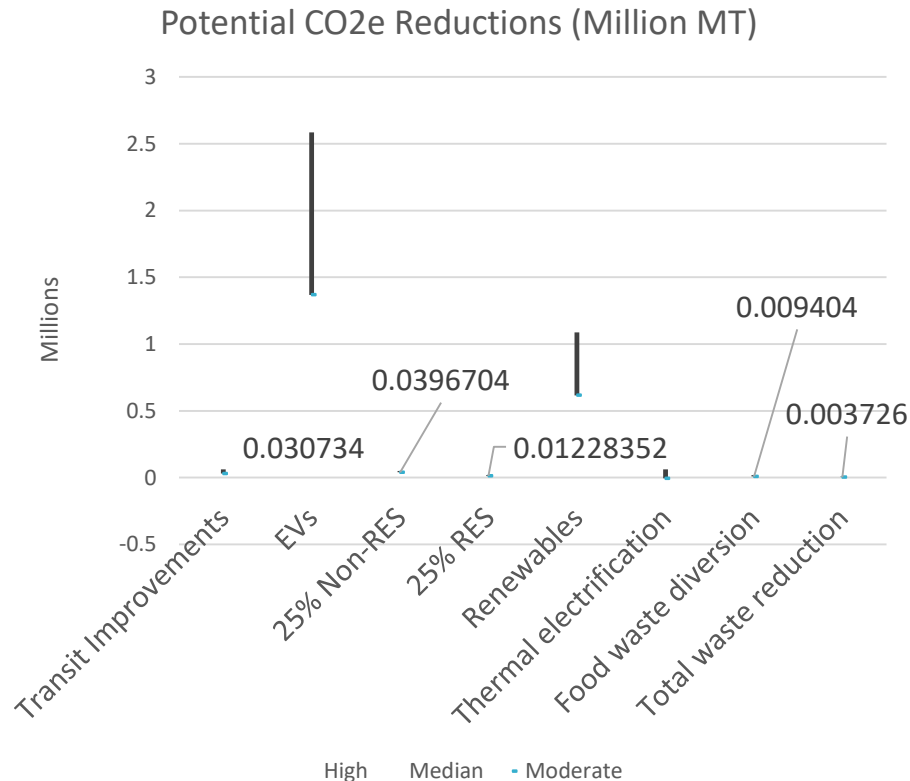
Buildings/Energy

1. Commercial and multifamily energy reduction **(#3)**
2. Residential energy reduction **(#1)**
3. Amplify opportunities to invest in renewables **(#2)**
4. Promote opportunistic thermal electrification **(#4)**

Waste

1. Commercial organic diversion (N/A)
2. Increase recycling **(#2)**
3. Promote consumption-reduction **(#3)**
4. Residential organic diversion **(#1)**

Strategy Evaluation (GHG potential)



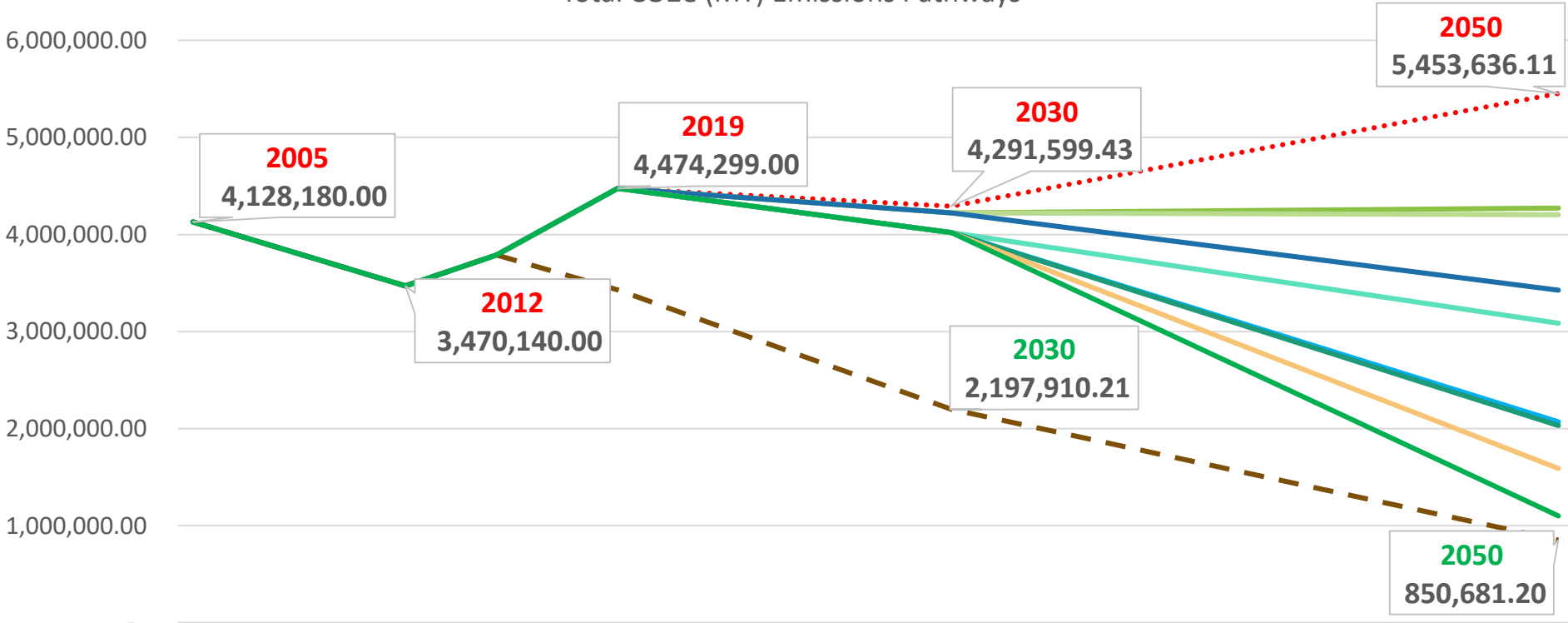
- Utilized available data or expert input.
 - Used existing studies (e.g. ORNL, PNNL, NREL, EPRI) and individual expert feedback.
 - Used growth models for energy consumption/sales and population.
- Ran approximately 20 individual iterations.

Critical drivers

1. Electrification of private transportation
2. Decarbonization of energy systems
 1. Electrification without significantly lower carbon electricity (NZC) is inadequate.

2050 Scenarios

Total CO2e (MT) Emissions Pathways



..... Business-as-usual

— Transportation alone (High)

— Transportation net zero carbon electricity (Moderate)

— Mixed interventions net zero carbon electricity 1 (High)

— TARGETS

— Transportation alone (Moderate)

— Mixed interventions (Moderate)

— Transportation net zero carbon electricity (High)

— Mixed interventions net zero carbon electricity 2 (High)





— Higher HD EV, EE, net zero carbon, 90% electrification

Adoption

1. MCC comment through May 22
2. Public unveiling of plan; Update to City Council on priorities
3. Schedule next official meeting. Targeting late Fall for check-in (Nov/Dec 2021)
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Does this feel right?

Is there anything you can't live with that you're hearing / have seen?

Thank you!

Climate Council Website:

www.knoxvilletn.gov/climatecouncil/

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