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City of Takoma Park Sustainability and Climate Action Plan: Opportunities for Action Report

November 18, 2019

Purpose and Scope

- Assist Takoma Park with its **next stage of climate planning**, placing an emphasis on social equity and resilience
- Provide **a set of recommended priority actions** that the City and the Takoma Park community can pursue
- **Inform a future, more detailed implementation roadmap** to achieve Takoma Park's "Net Zero by 2035" goal

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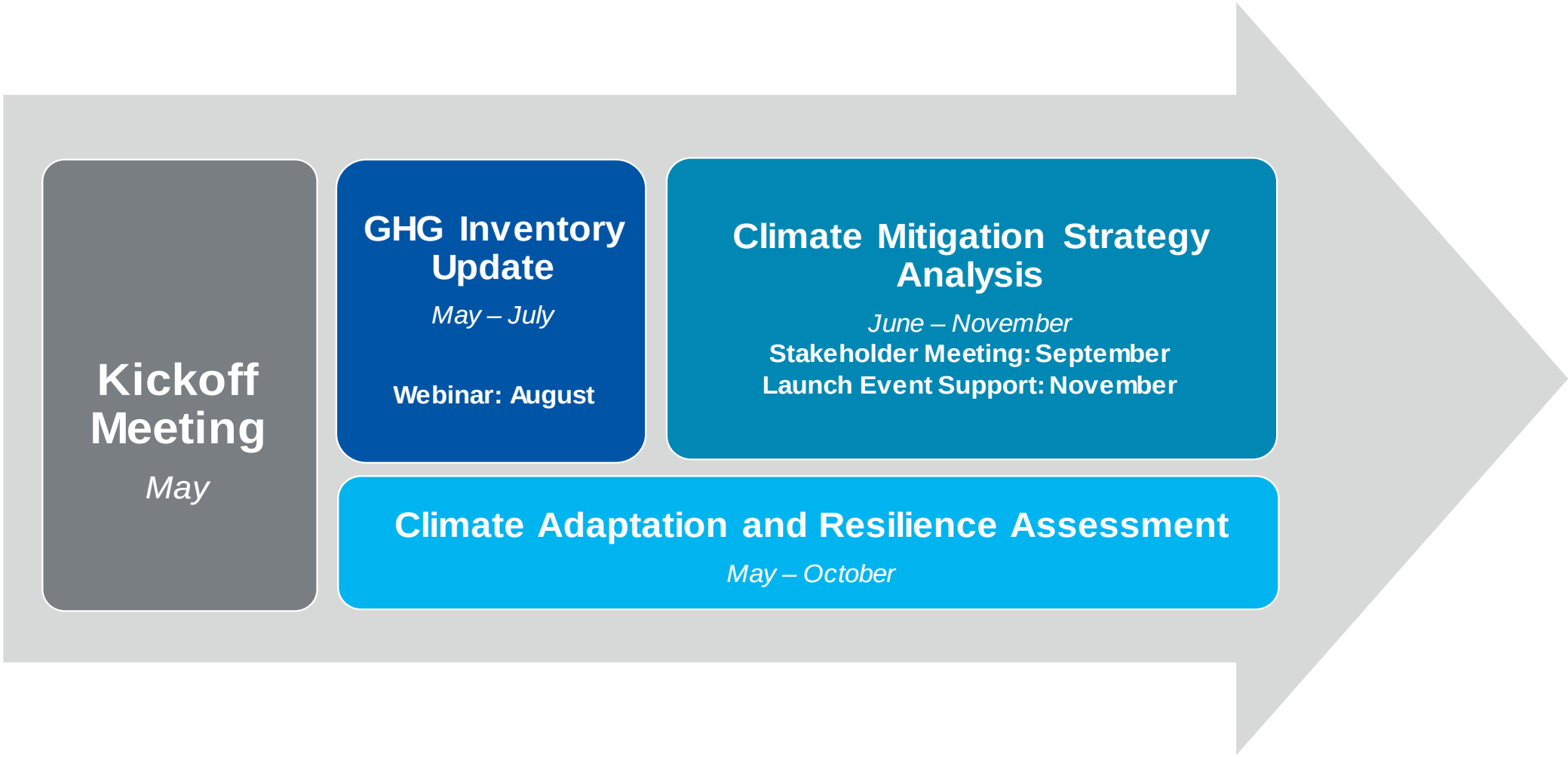
Project Timeline



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Total GHG Emissions by Source Sector

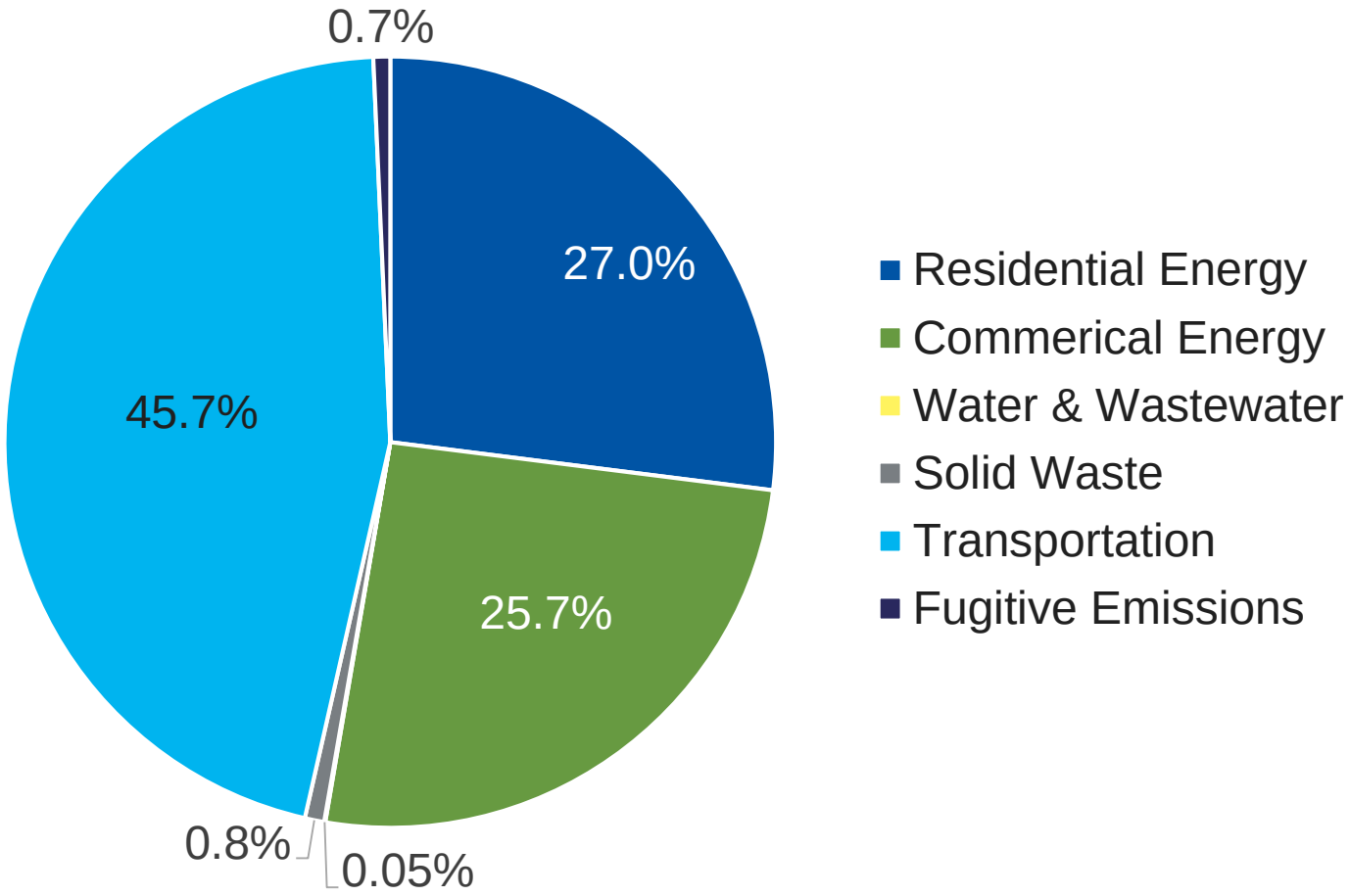
City of Takoma Park, 2017

Total Emissions (CO2e)

129,015 metric tons

Emissions Per Capita:

7.31 metric tons/person



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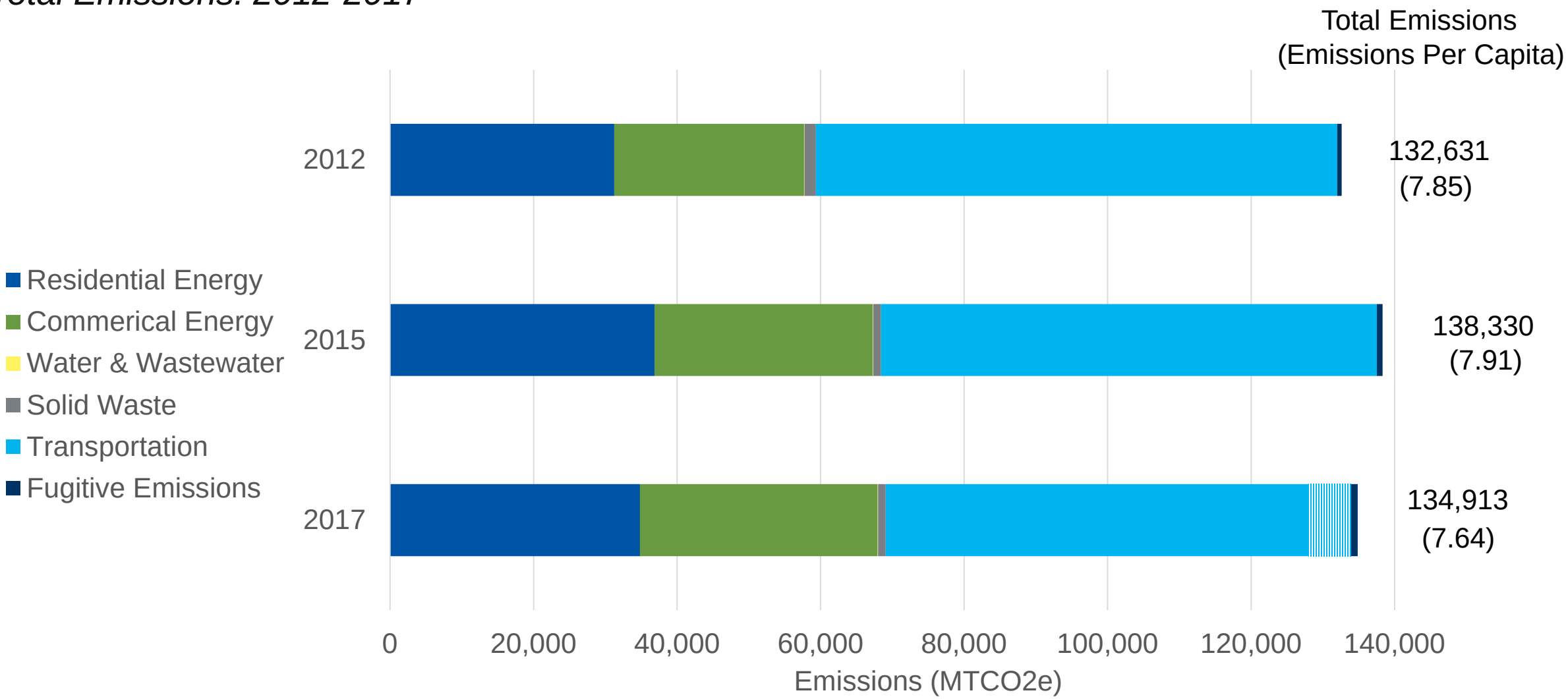
Emissions Trends

Total Emissions: 2012-2017



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Strategy Development and Evaluation Process

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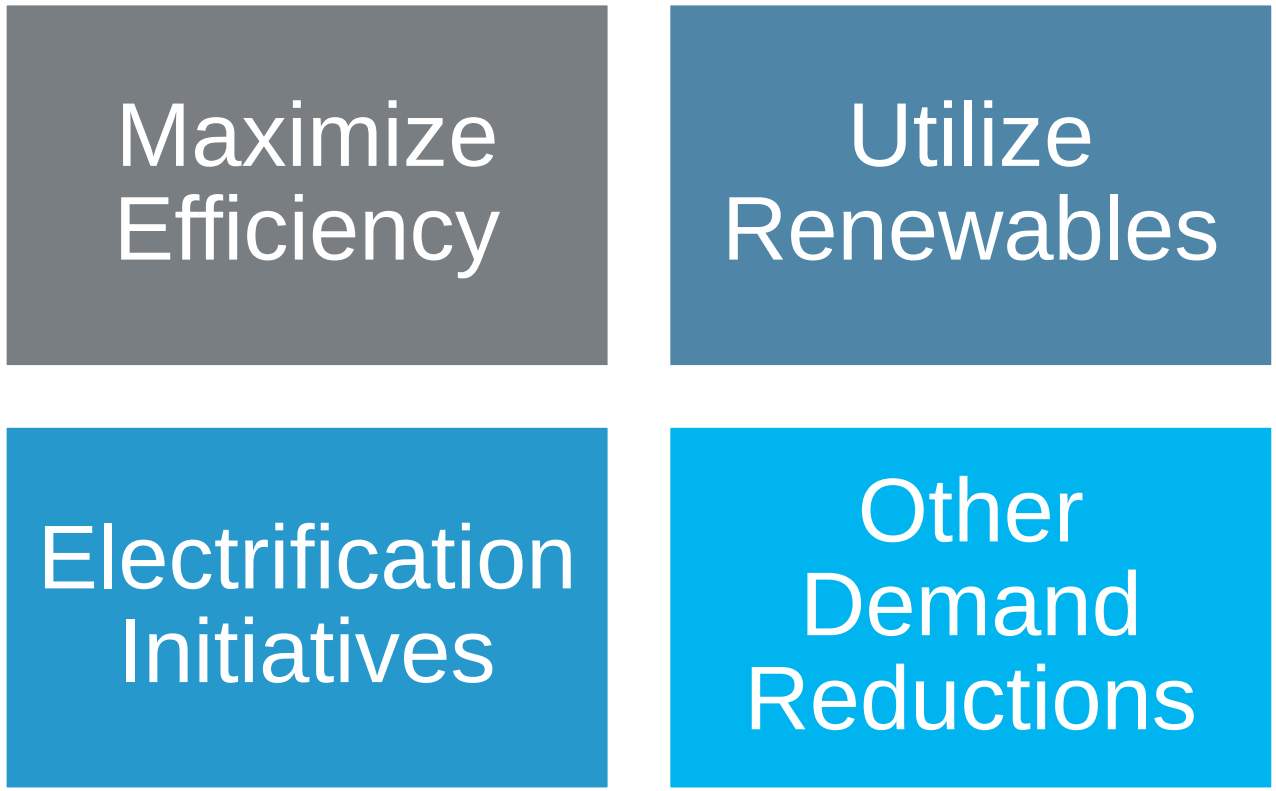
How Can Takoma Park Reduce Emissions?

Initial Strategy Characterization



- Developed a suite of **18 strategies** for Takoma Park
- **Additive** to previously employed strategies
- Coordination at both the **City and regional** level

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Stakeholder Engagement

- **Workshop** attended by over 50 community members
- Series of six **focus groups**
- In-person surveys during four separate **tabling sessions** at community events
- **Online survey** completed by 219 participants

Prioritized Strategies

- **8 strategies** were selected for further evaluation based on stakeholder feedback and consultation with the City:

Renewable Thermal Community Outreach Campaigns	Transit Accessibility and Outreach	Residential Energy Assessments	Commercial & Multifamily Energy Disclosure Ordinance
Commercial & Multifamily Building Performance Requirements	Community Choice Aggregation	Natural Gas Elimination	Virtual PPA Opportunities

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Strategy Analysis

- Create high and low estimates for GHG reduction for each strategy based on uptake/utilization assumptions
- Estimate **costs**, with a focus on the costs to the City for implementation
- Identify potential **challenges and opportunities** facing the strategy

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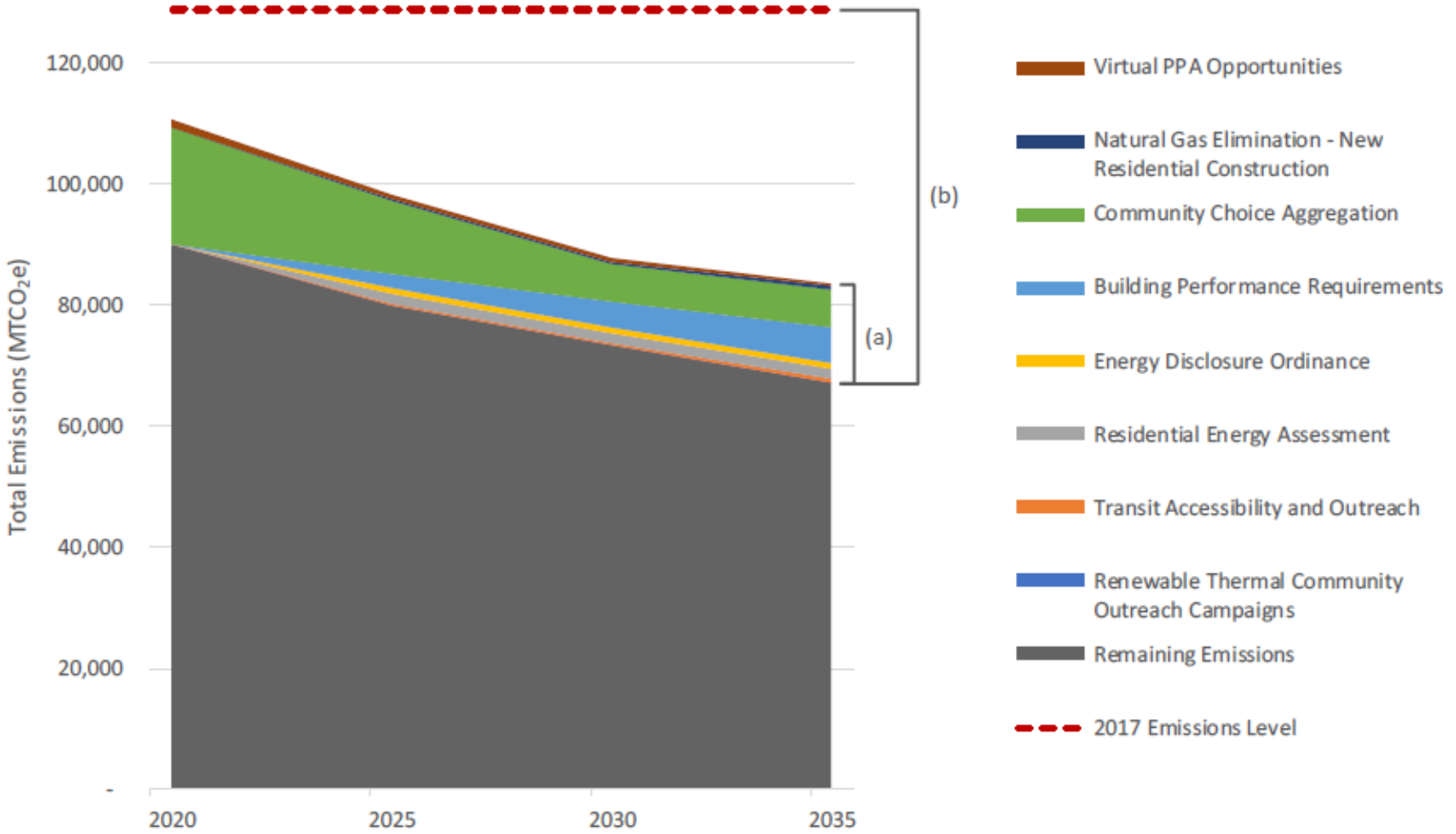
High GHG Reduction Scenario



(a) denotes the emissions projected for 2035 that could be mitigated by the analyzed strategies
(b) denotes the total emissions reduction from 2017 levels that could be achieved by the analyzed strategies

In 2035 these strategies…

- Reduce **48%** of 2017 emissions levels
- Mitigate **20%** of estimated 2035 emissions

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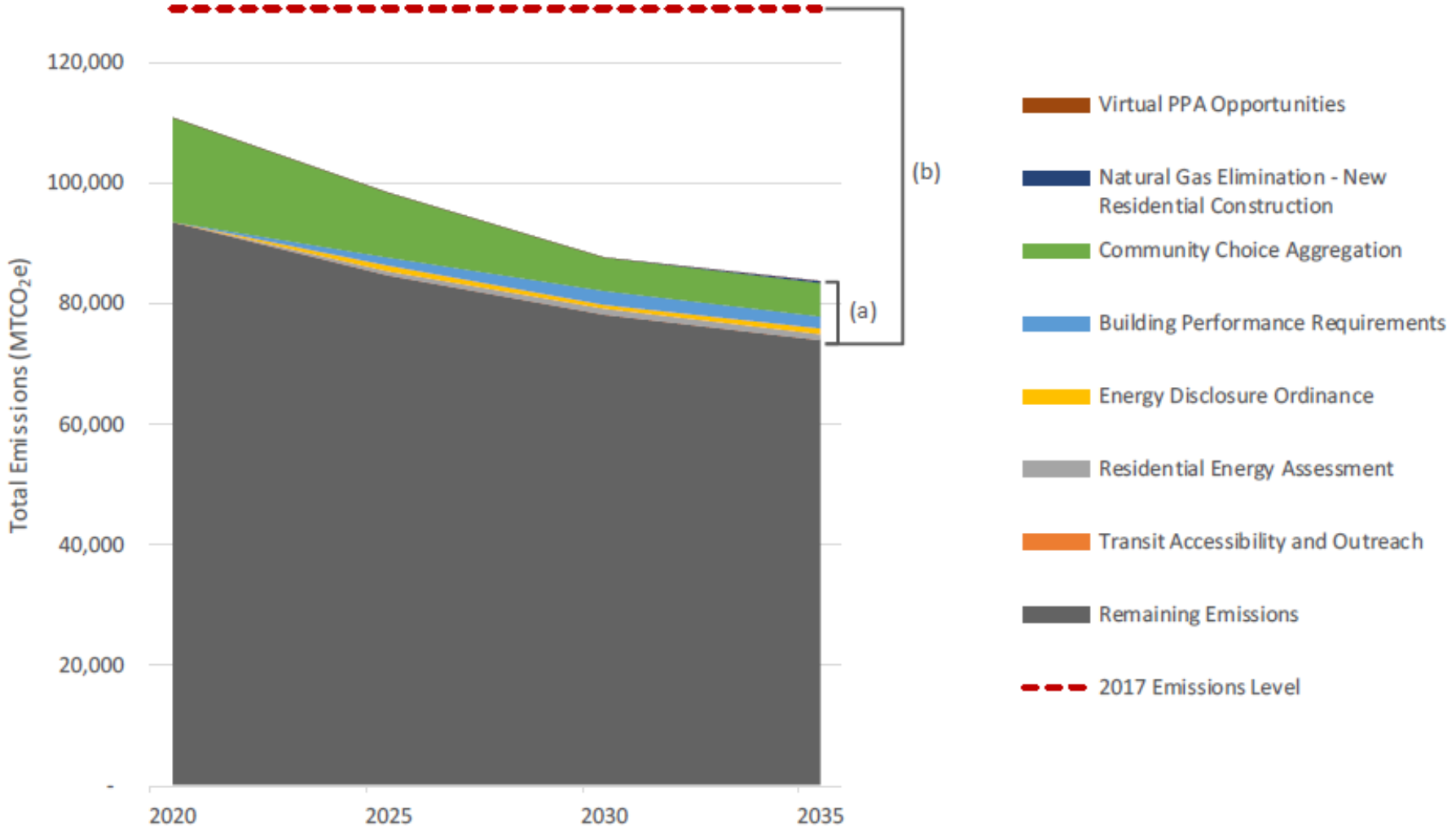
Low GHG Reduction Scenario



(a) denotes the emissions projected for 2035 that could be mitigated by the analyzed strategies

(b) denotes the total emissions reduction from 2017 levels that could be achieved by the analyzed strategies

In 2035 these strategies…

- Reduce **42%** of 2017 emissions levels
- Mitigate **12%** of estimated 2035 emissions

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Key Findings

- **Community choice aggregation** provides the greatest opportunity for emissions reduction of all the strategies examined.
- Other strategies with notable reductions include:
  - **Residential energy assessments;**
  - Commercial and multifamily **building performance requirement;** and
  - **Energy disclosure ordinance** for commercial and multifamily buildings.
- As the **electric grid becomes less carbon intensive** due to the implementation of the Maryland RPS, the amount of emissions reduction attributed directly to these strategies decreases.
- Deeper emissions reductions would **require additional focus on transportation**, likely needing to be approached at the regional level.

Adaptation and Resilience

- Research and interviews indicate **extreme heat, flooding**, **and increased storm severity** as primary stressors, with drought a secondary consideration
- Recommended **adaptation and resilience strategies** by stressor outlined in the final report and detailed in memo provided to the City
- **Climate preparedness and resilience co-benefits** described across all recommended strategies (e.g., resilience to extreme heat and other weather events, improved stormwater management, and lowering electrical grid demand)

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Next Steps

- **Implementation plan** development to include:
  - Comprehensive pathways for emissions reduction;
  - Timeline for implementation and sequencing of tasks and actions;
  - Outline of potential partners for each project component;
  - Key opportunities for the City to involve its residents in accelerating the implementation and uptake of climate action programs; and
  - Estimated implementation costs and budgets.

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Thank You