



# Climate Action Plan: Greenhouse Gas Reduction Targets

Engineering & Operations Committee

Item 6d

March 9, 2020

# Board Recap

- October 2018 – Board authorized preparation of a Climate Action Plan (CAP) to streamline CEQA for future projects
- November 2019 – Board updated on results of the emissions inventory and forecast of future emissions

# Background

- Metropolitan is not currently required to meet any mandated GHG reduction target
- CEQA requires significant GHG impacts be mitigated to the extent feasible
  - **Ex. Regional Recycled Water Program**
    - Mitigation: Purchase offsets approx. \$26M
    - Climate Action Plan = \$800K + costs of any reduction projects
- CAP must show consistency with state and local GHG reduction targets/goals

# Legislative Drivers



## Assembly Bill 32

Established GHG reduction target to 1990 levels by 2020

## Executive Order S-3-05

Called for 80% reduction below 1990 by 2050

Superseded by EO B-55-18

## Senate Bill 32

40% reduction below 1990 levels by 2030

Minimum required target in CAP

## Scoping Plan

Plan to implement SB32

Currently based on EO S-3-05

## Executive Order B-55-18

Calls for carbon neutrality no later than 2045.

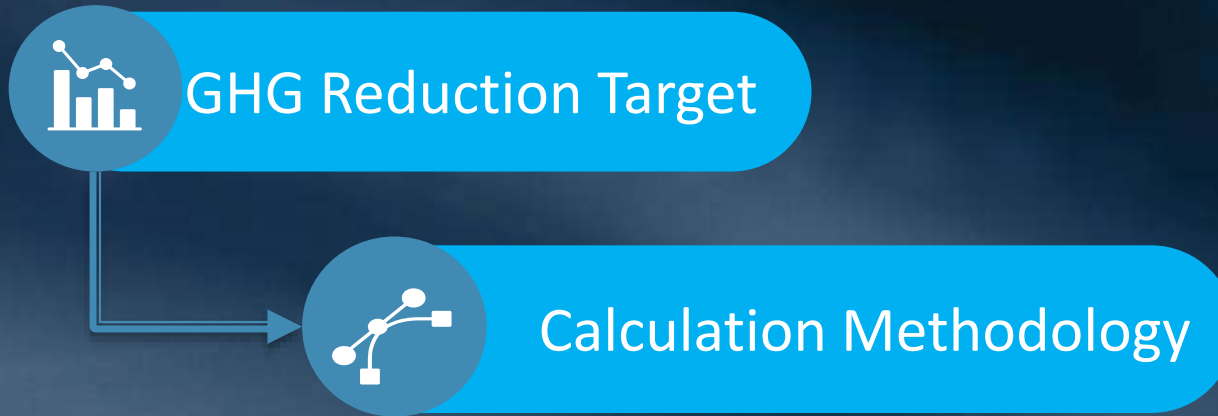
# GHG Reduction Target Options



## GHG Reduction Target

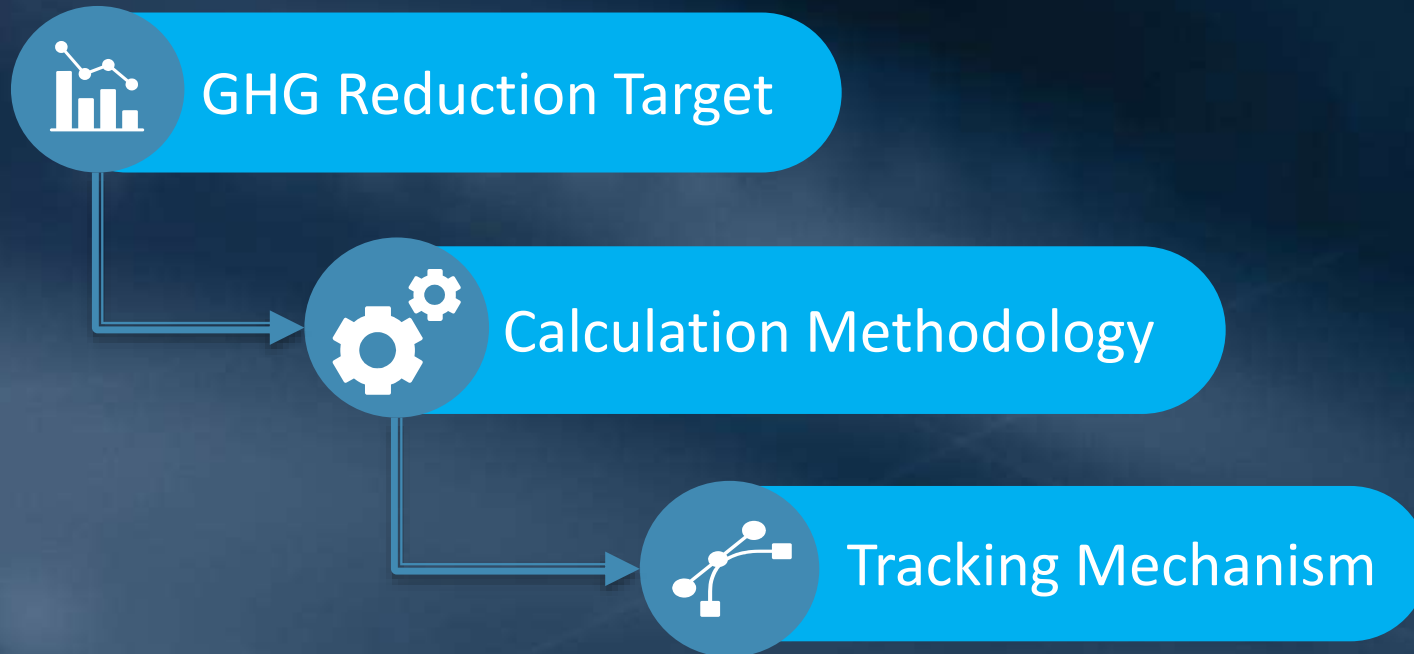
- 80% below 1990 levels by 2050 (EO S-3-05)
- 40% below 1990 levels by 2030, then carbon neutrality by 2045 (SB32 & B-55-18)
- Carbon neutrality by 2045 (EO B-55-18)

# Reduction Target Variables



- Mass Emissions – annual operational emissions
- Per Capita – mass emissions / service population
- Efficiency – mass emissions / acre feet delivered

# Reduction Target Variables



- Running Average (three- or five-year)
- Carbon Budget (not to exceed budget with annual tracking)

# Proposed Target Scenario



## Reduction Target

### Carbon Neutrality by 2045

- › Complies with SB 32 and B-55-18
- › Progressive
- › Feasible due to Metropolitan's emissions type
- › Supports IPCC goal to limit warming to 2°C



## Emissions Calculation

### Per Capita

- › Scales for population increases
- › Maximizes benefit from conservation efforts
- › Called for in 2017 Scoping Plan



## Tracking

### Carbon Budget

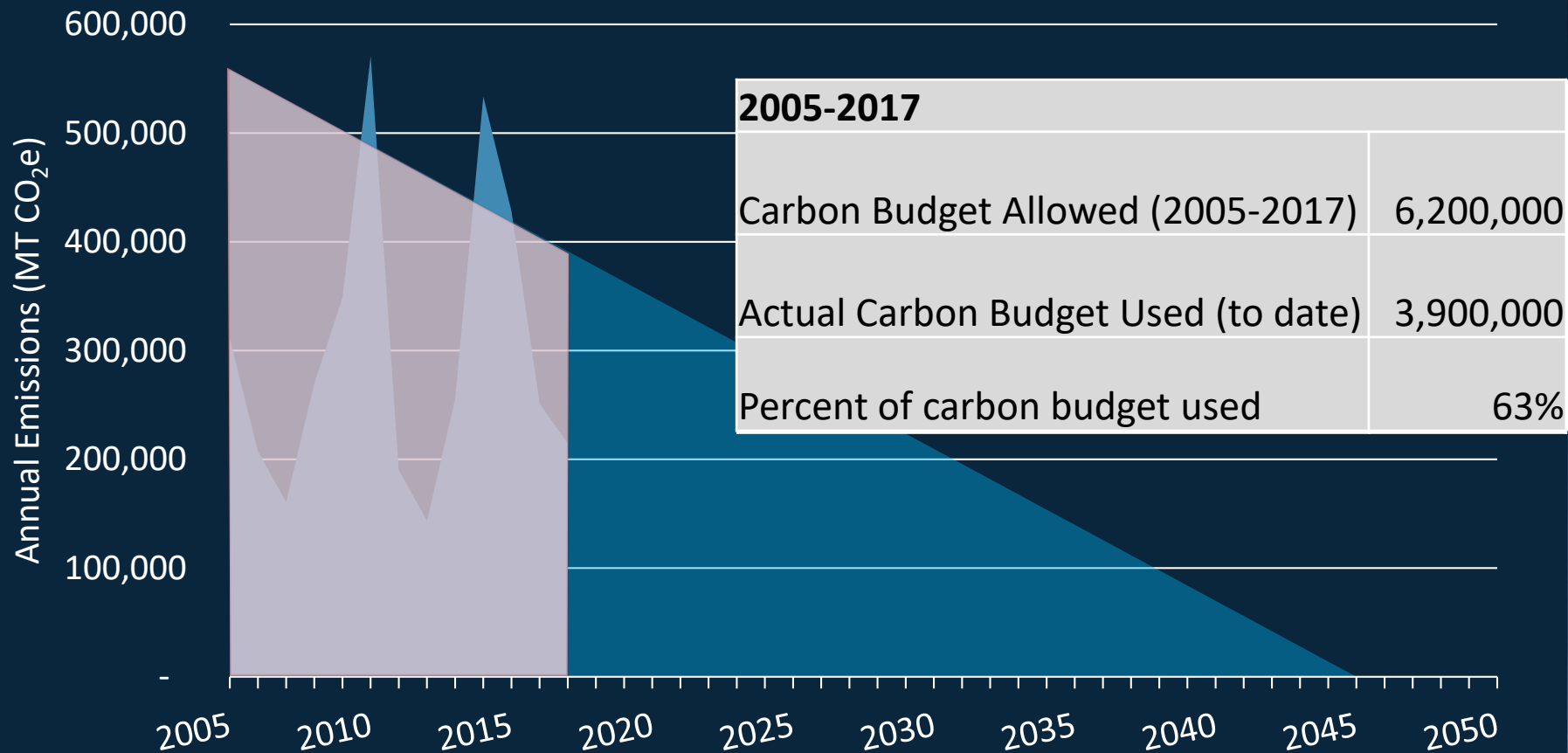
- › Most accurate
- › Sets hard limit on total emissions
- › More conservative, but flexible
- › Used by IPCC
- › Leverages annual reporting to TCR

## Deciding Factors



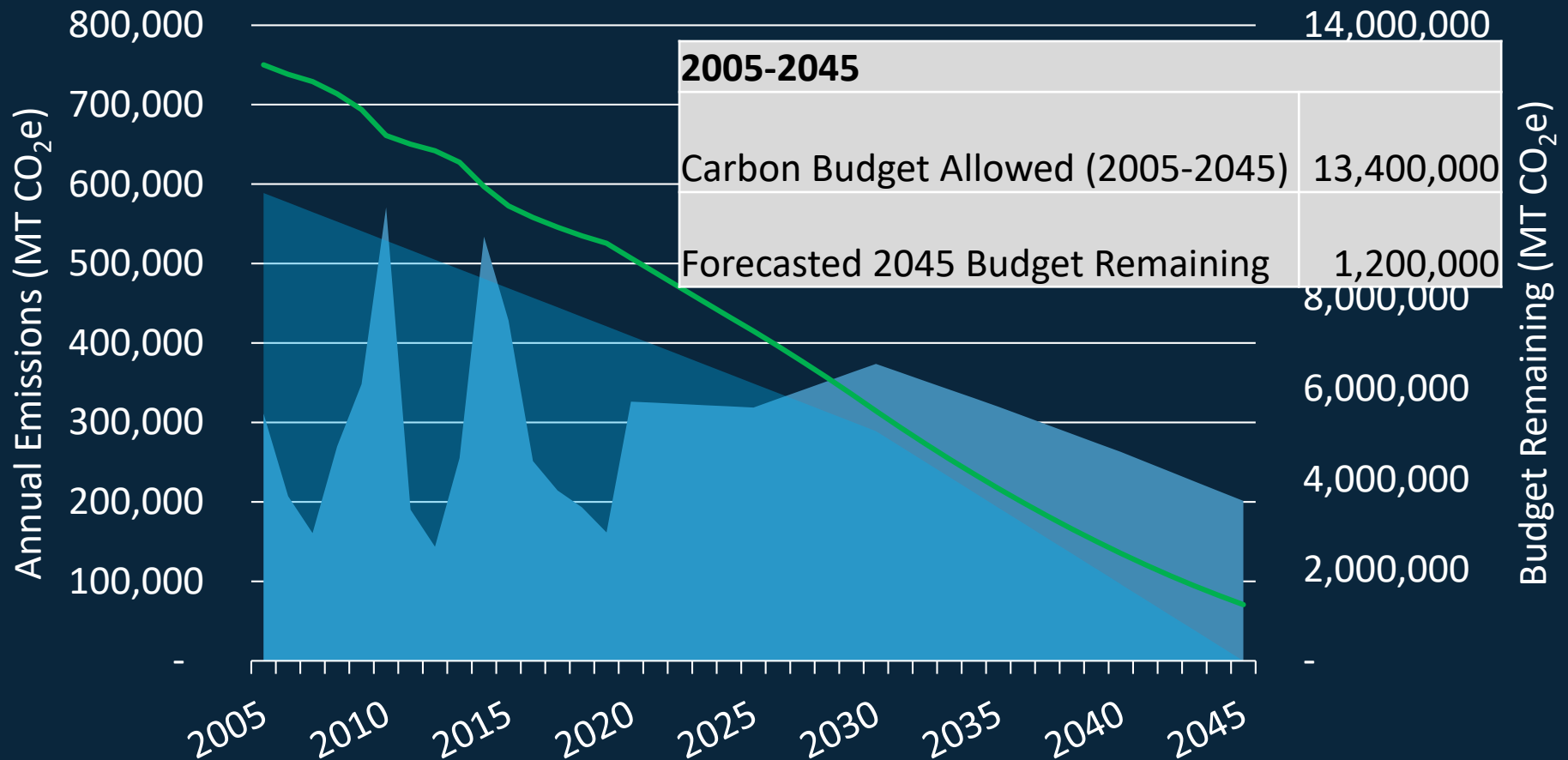
# Carbon Budget

Metropolitan Emissions 2005-2017 Compared to Carbon Budget  
(Net Zero by 2045)

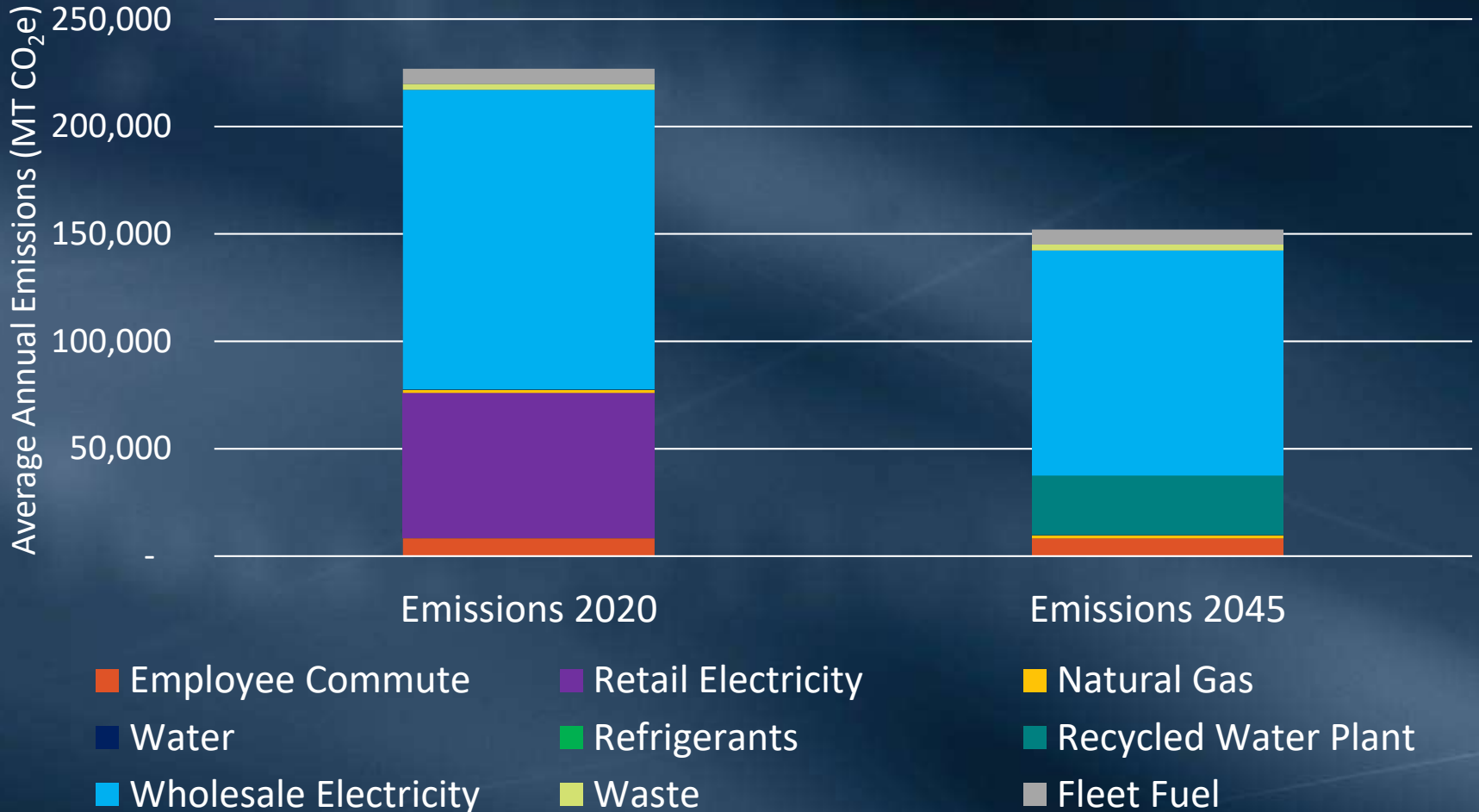


# Per Capita Emissions Using Carbon Budget

Metropolitan Emissions Adjusted Forecast  
(Average CRA Pumping)



# Forecasted Emission Change by 2045



# Potential Short-term Measures



- Install LED lighting at all facilities (ongoing)
- Yorba Linda HEP behind the meter
- Enroll in green retail power options
- Install battery storage at treatment facilities



Photo courtesy edie newsroom

# Potential Long-term Measures



- Purchase wholesale power from green resources
- Manage CRA pumping to maximize use of renewable energy
- Implement Delta Islands restoration / carbon sequestration
- Purchase electric / alternative fuel fleet vehicles



# Proposed GHG Reduction Target Approach



Carbon Neutrality by 2045

Per Capita Emissions Calculation, Carbon Budget Tracking

- Clear path to carbon neutrality
- Cost effective options exist for emissions reductions
- Per capita accounts for conservation efforts and population increases
- Carbon budget tracks progress while accounting for highly variable emissions

# Next Steps

- April 2020 - Board Informational Item – Cost analysis to achieve the 2045 target
- December 2020 – Staff returns to the Board to adopt CAP and certify CEQA document

