

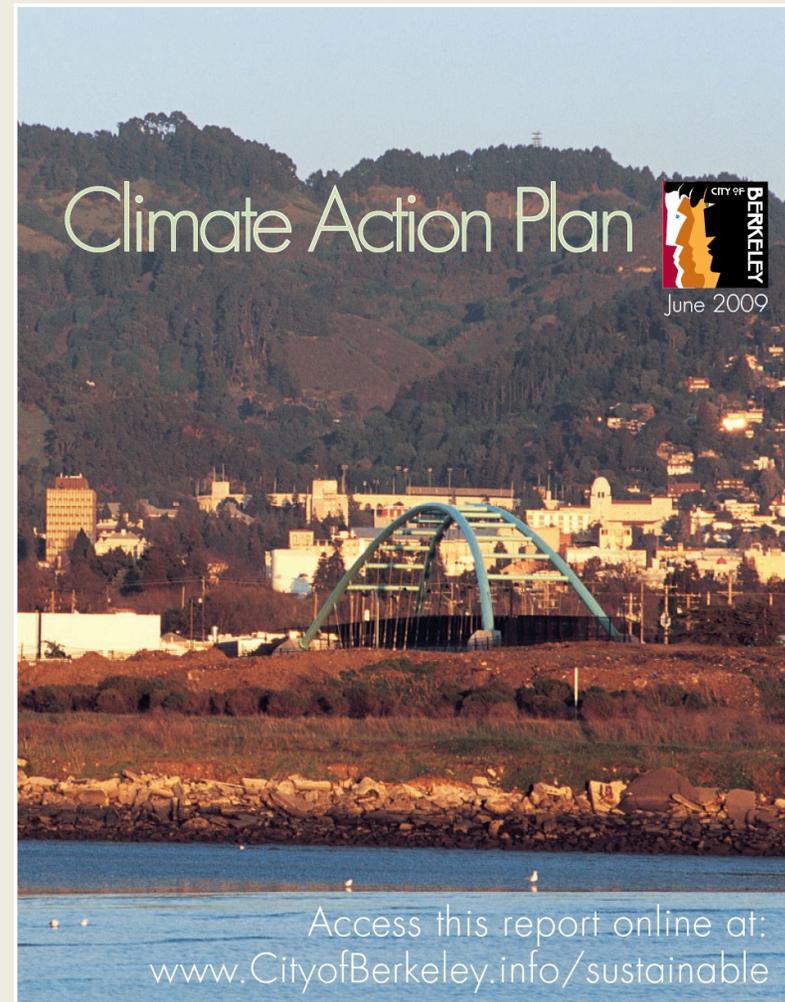
Berkeley Climate Action Plan ***2015 Update***

November 3, 2015 City Council Work Session
Office of Energy & Sustainable Development
Office of the City Manager

Climate Action Plan (CAP)

33% Reduction
below 2000
levels by 2020

80% Reduction
below 2000
levels by 2050



Purpose of Work Session

- Update on our community's progress
- Highlight key greenhouse gas (GHG) reduction initiatives
- Obtain Council input on efforts to accelerate emissions reductions and meet CAP goals

Berkeley Seen as a Leader in Climate Action



Top nine leading cities in the nation tracking greenhouse gas (GHG) inventories and showing reductions



2nd highest walk-to-work rate in the nation*

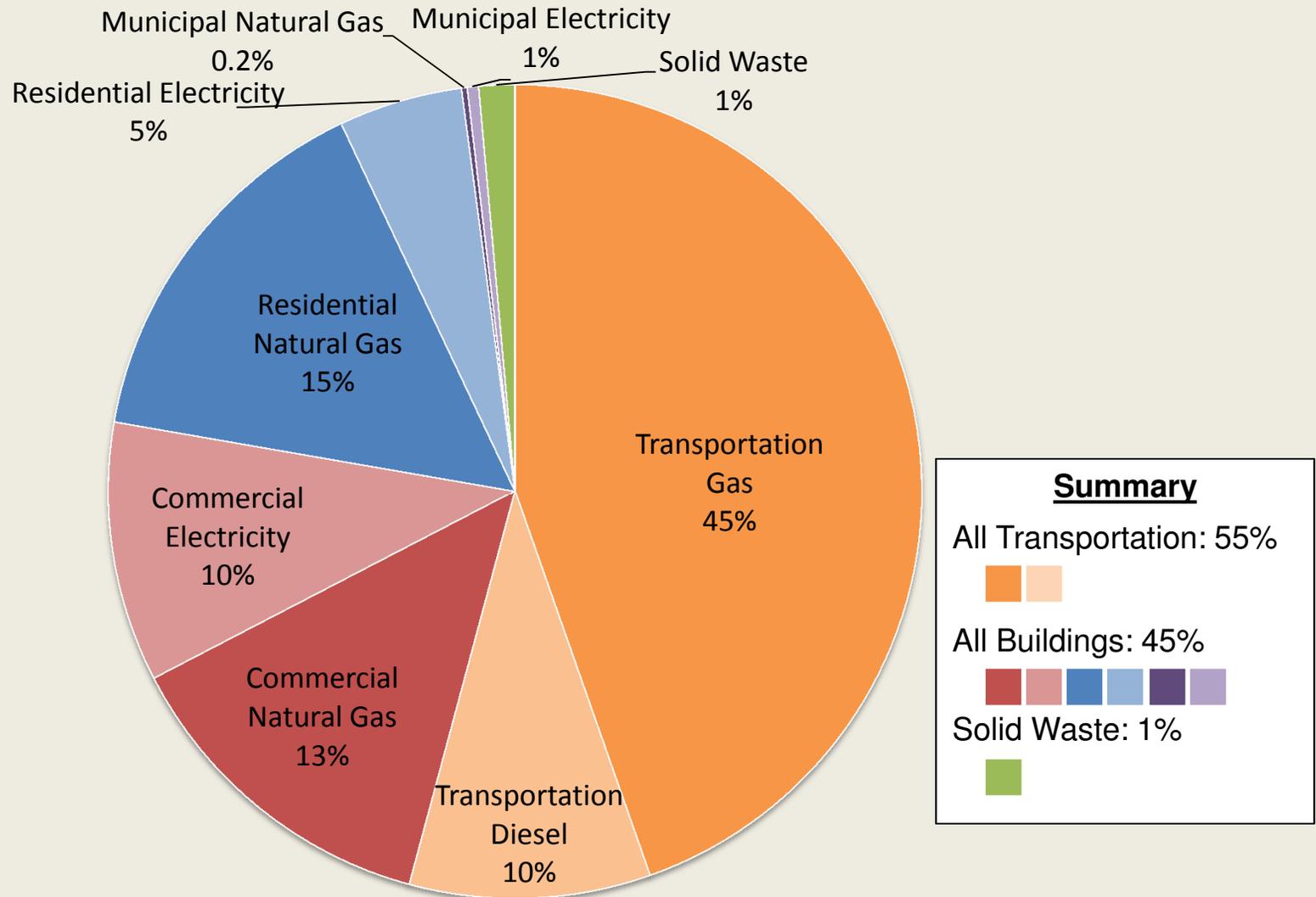


3rd highest cycling-to-work rate in the nation*



4th in the nation as a Solar Leader making it easier and more cost efficient for residents to go solar
(see <http://www.ci.berkeley.ca.us/solarpvpermitguide/>)

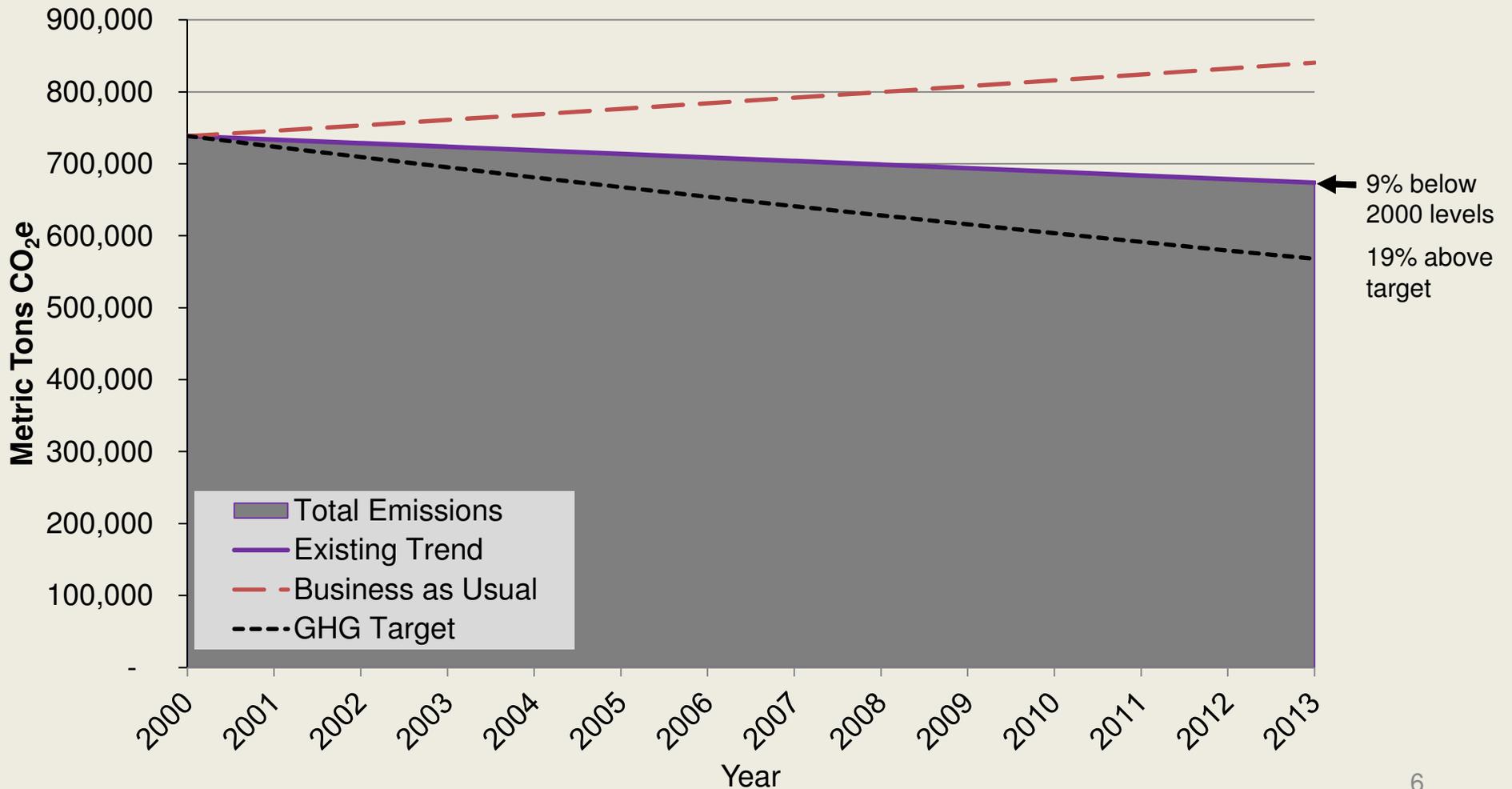
Berkeley Greenhouse Gas Emissions By Source (2013 Data)



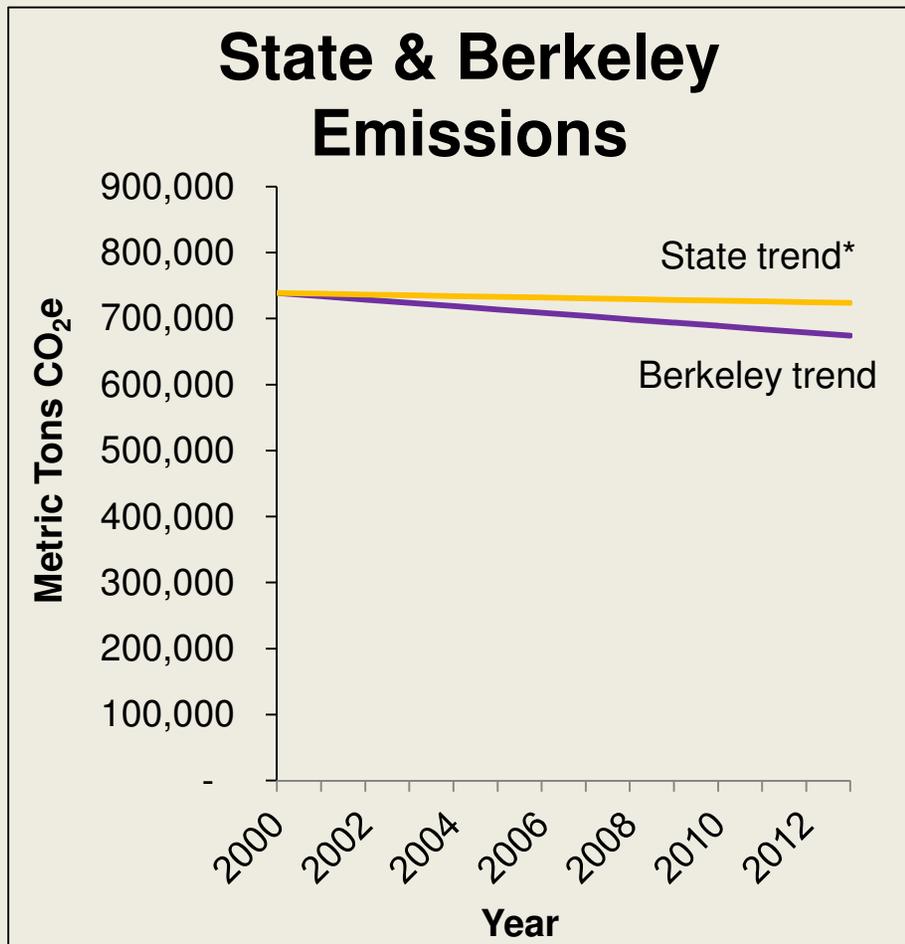
**Note: This inventory includes UC Berkeley and Lawrence Berkeley National Laboratory emissions related to transportation, but does not include emissions related to the campus' energy consumption or solid waste disposal.*

Community-Wide Greenhouse Gas Target & Trend

Emissions decreased 9% from 2000-2013



Comparative Regional Greenhouse Gas Trends

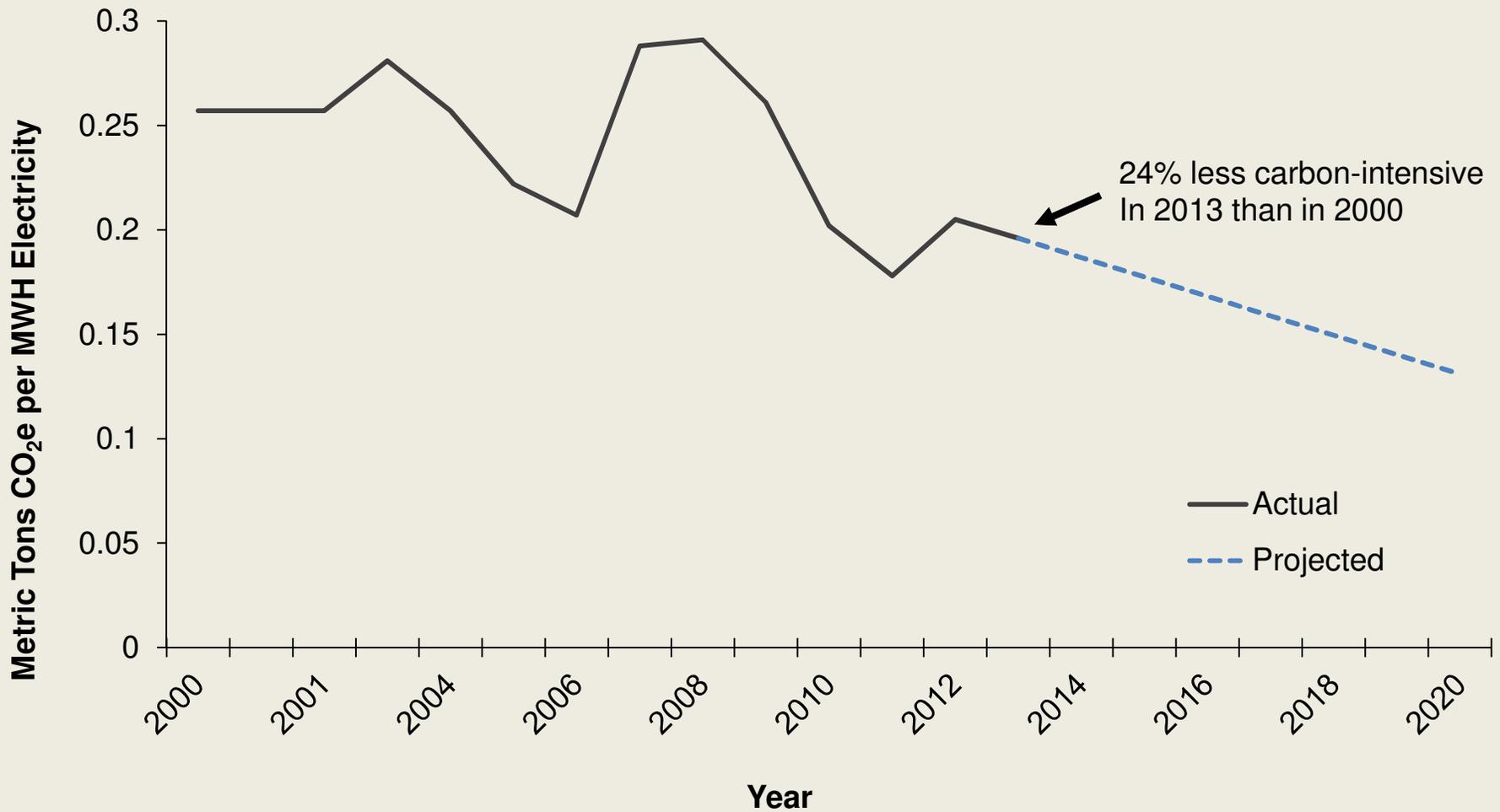


Other Regional Trends:

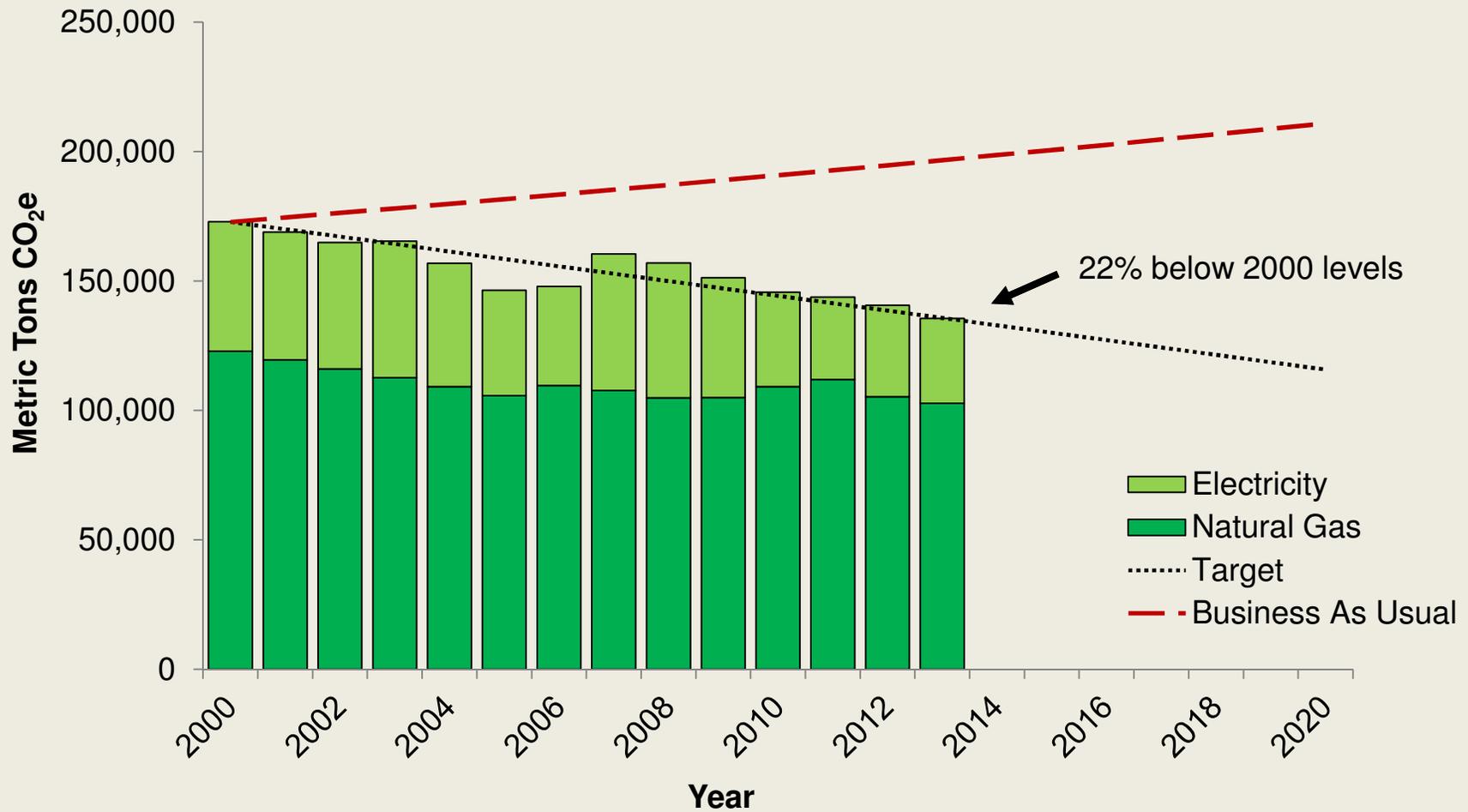
- **Bay Area** emissions increased 29% (1990-2011)
- **UC Berkeley** reduced emissions from waste, buildings & transportation by 19% (2007-2013)
- **Lawrence Berkeley National Laboratory** reduced onsite emissions by approximately 7% (2008-2014)

**Note: State trend line depicts a trend only and not actual quantity of emissions*

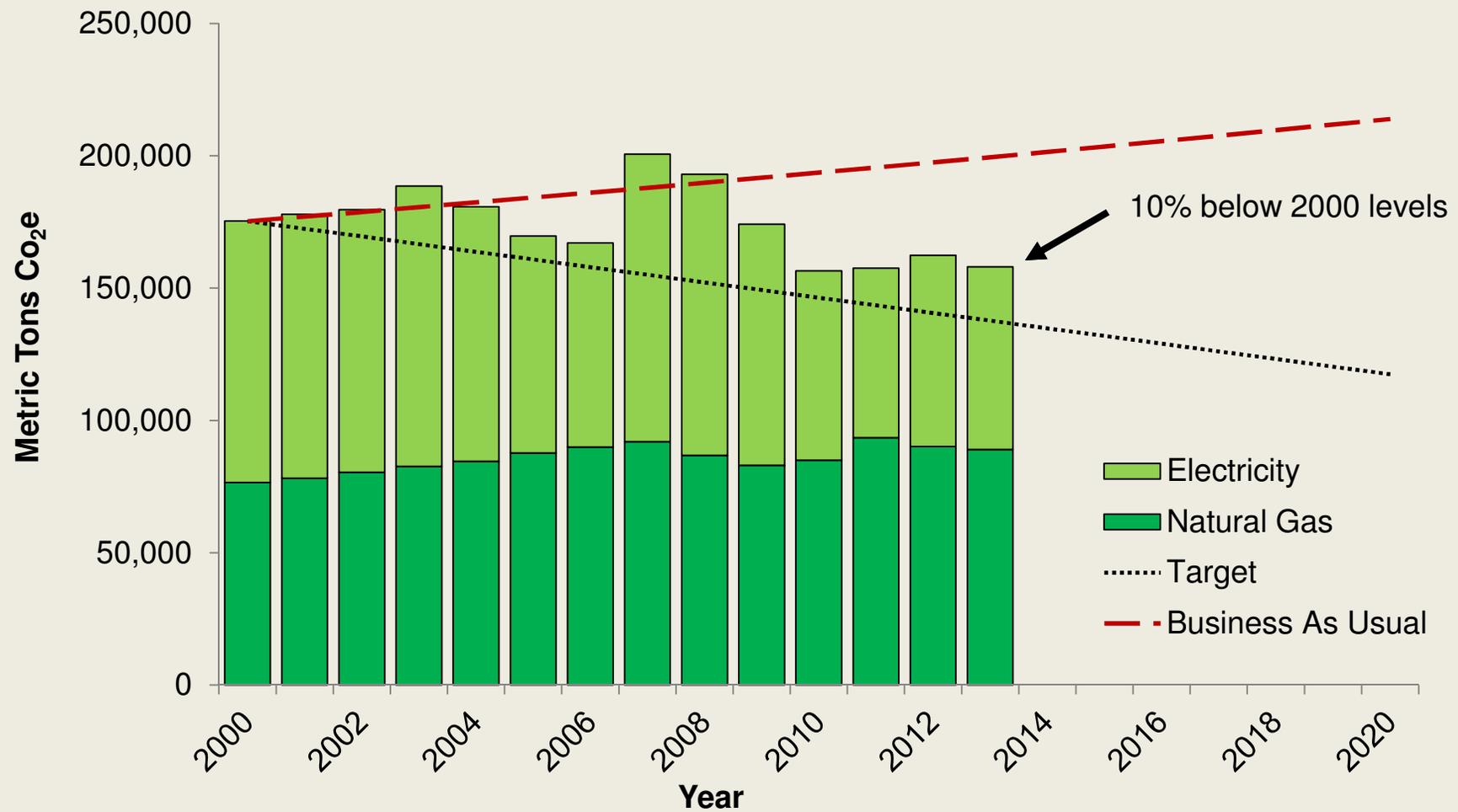
Carbon Intensity of PG&E Electricity 2000-2020



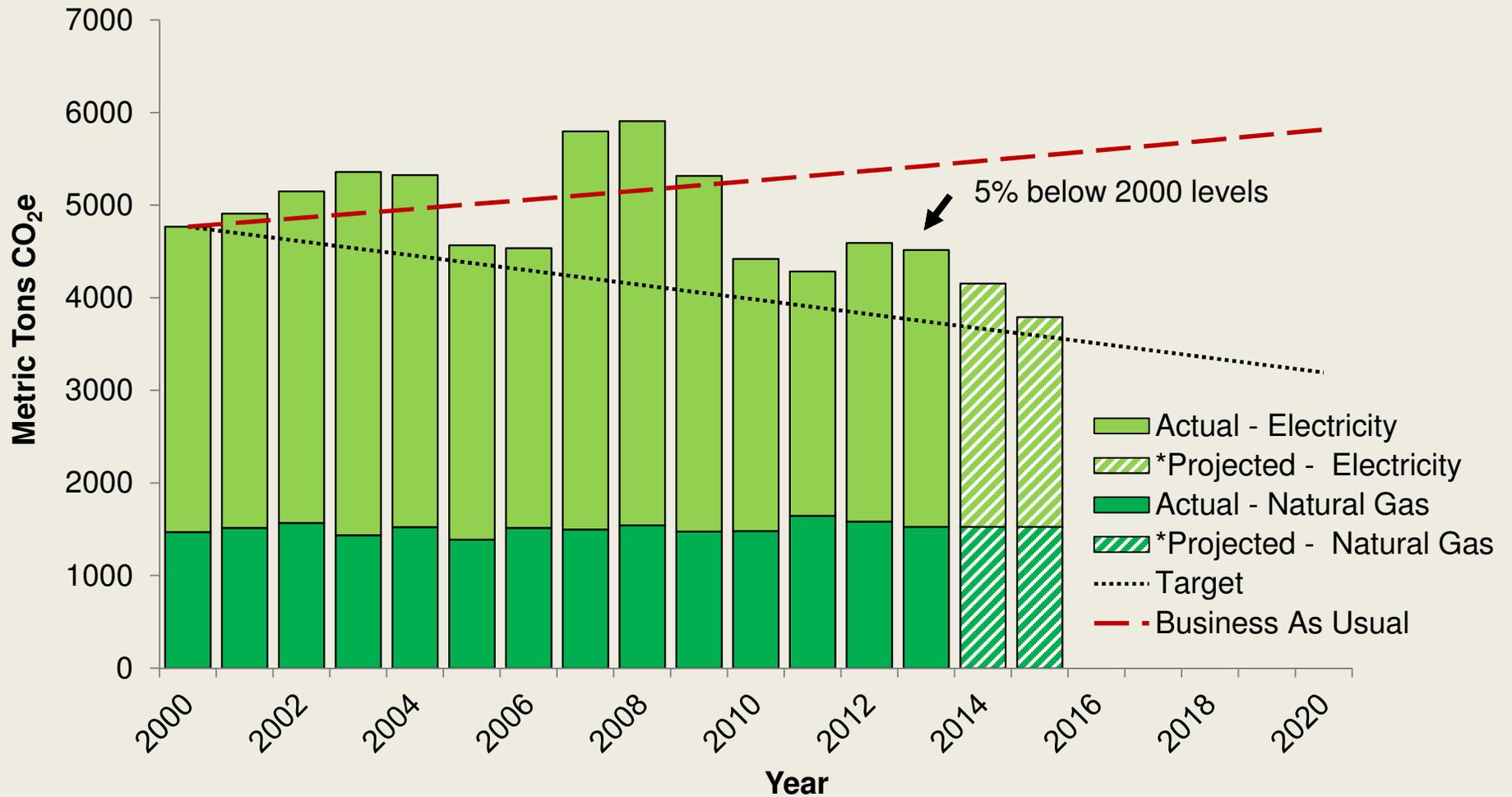
Greenhouse Gas Emissions from Residential Buildings



Greenhouse Gas Emissions from Commercial Buildings

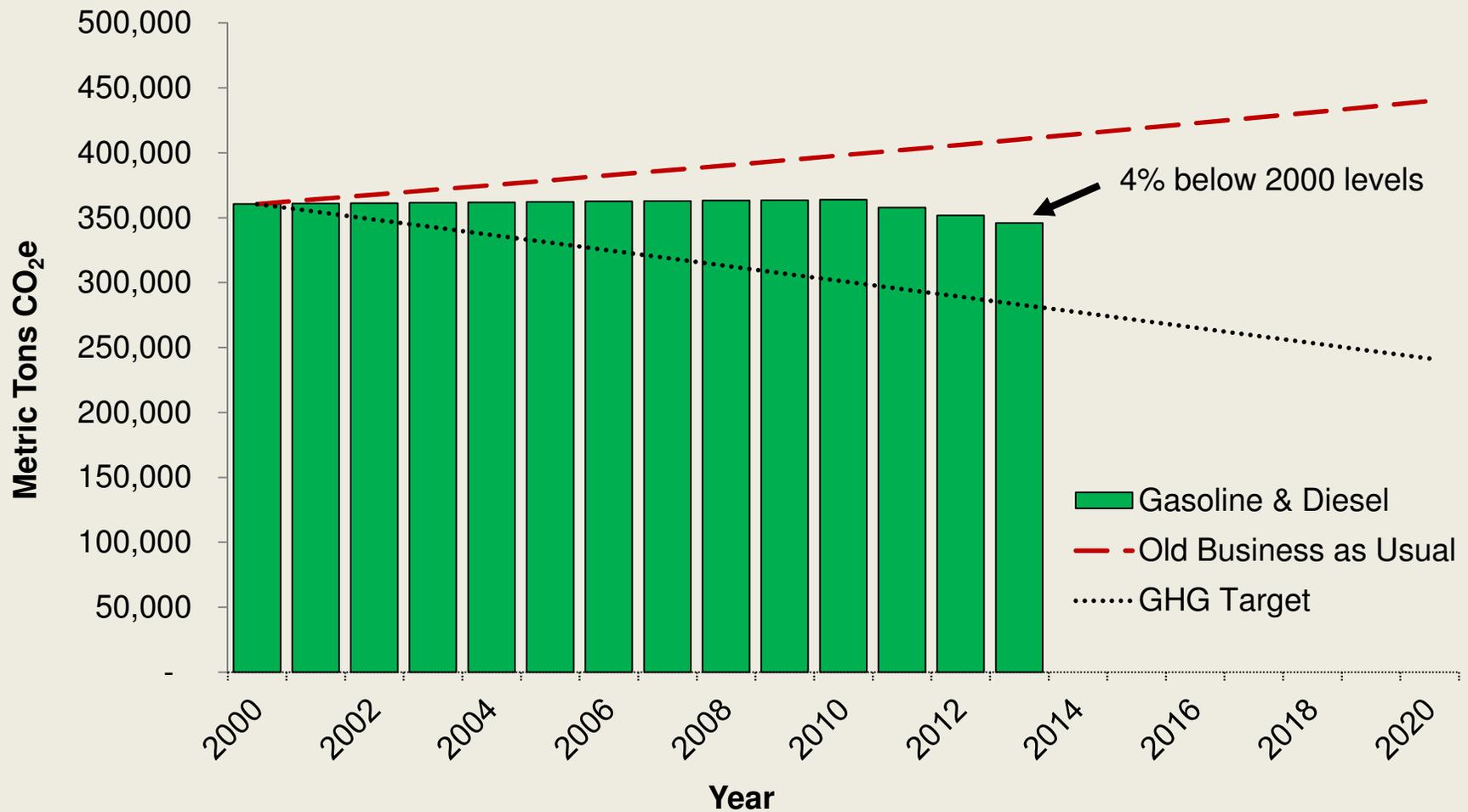


Greenhouse Gas Emissions from Municipal Buildings



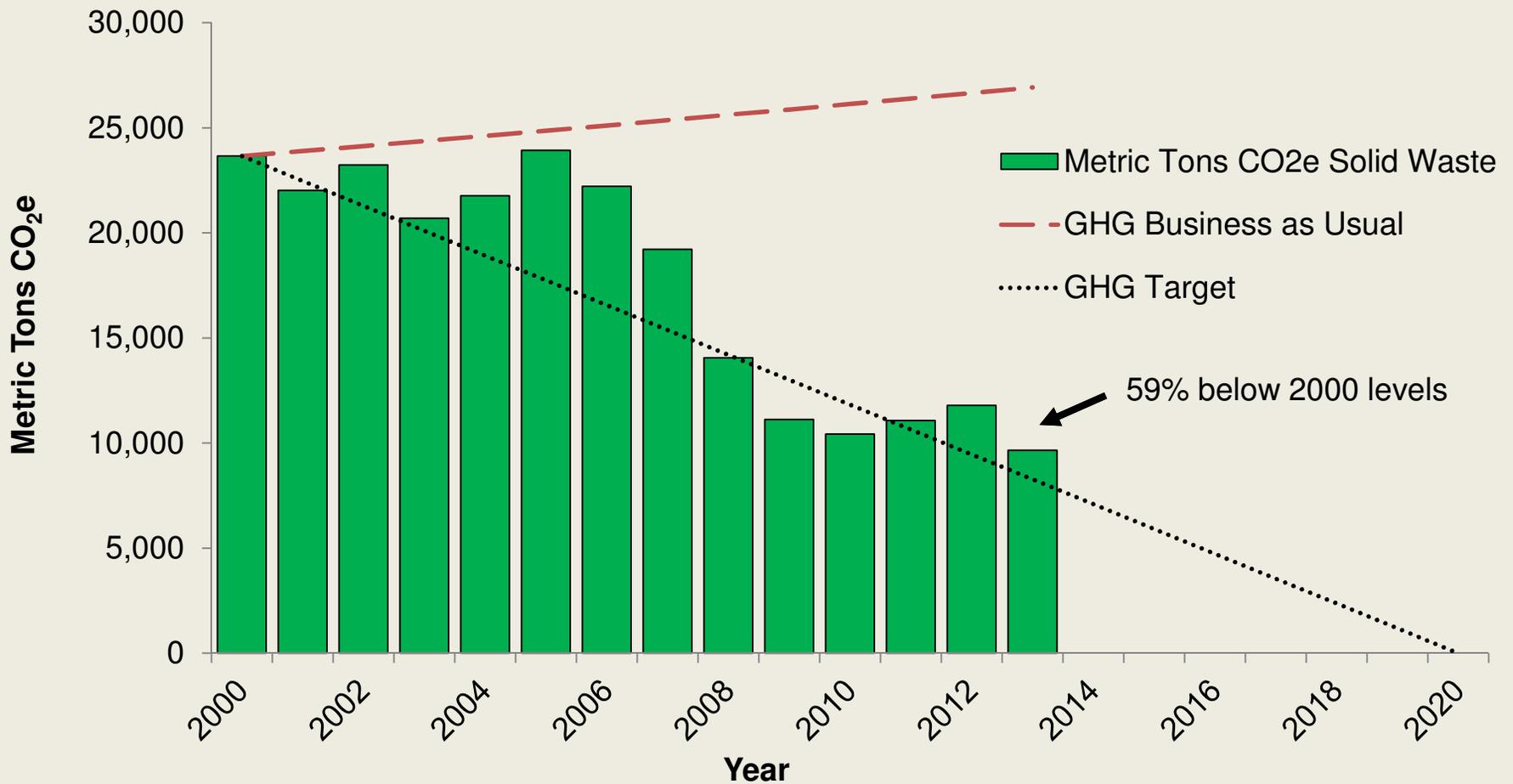
*Projected electricity reductions from LED Streetlights Project

Greenhouse Gases from Transportation*



*Data estimates based on the Metropolitan Transportation Commission (MTC) Travel Model One model, version 0.3

Greenhouse Gases from Solid Waste Disposal – *Moving towards Zero Waste*



Local strategies designed to accelerate reductions



Building Energy Use:

- Municipal building & streetlight upgrades
- Building Energy Saving Ordinance (BESO)
- Community Choice Aggregation
- Center Street Garage Reconstruction
- Solar Plan



Transportation & Land Use:

- Electric vehicle (EV) infrastructure
- Transit oriented development
- Bike and pedestrian infrastructure
- Parking and transportation demand management (goBerkeley)

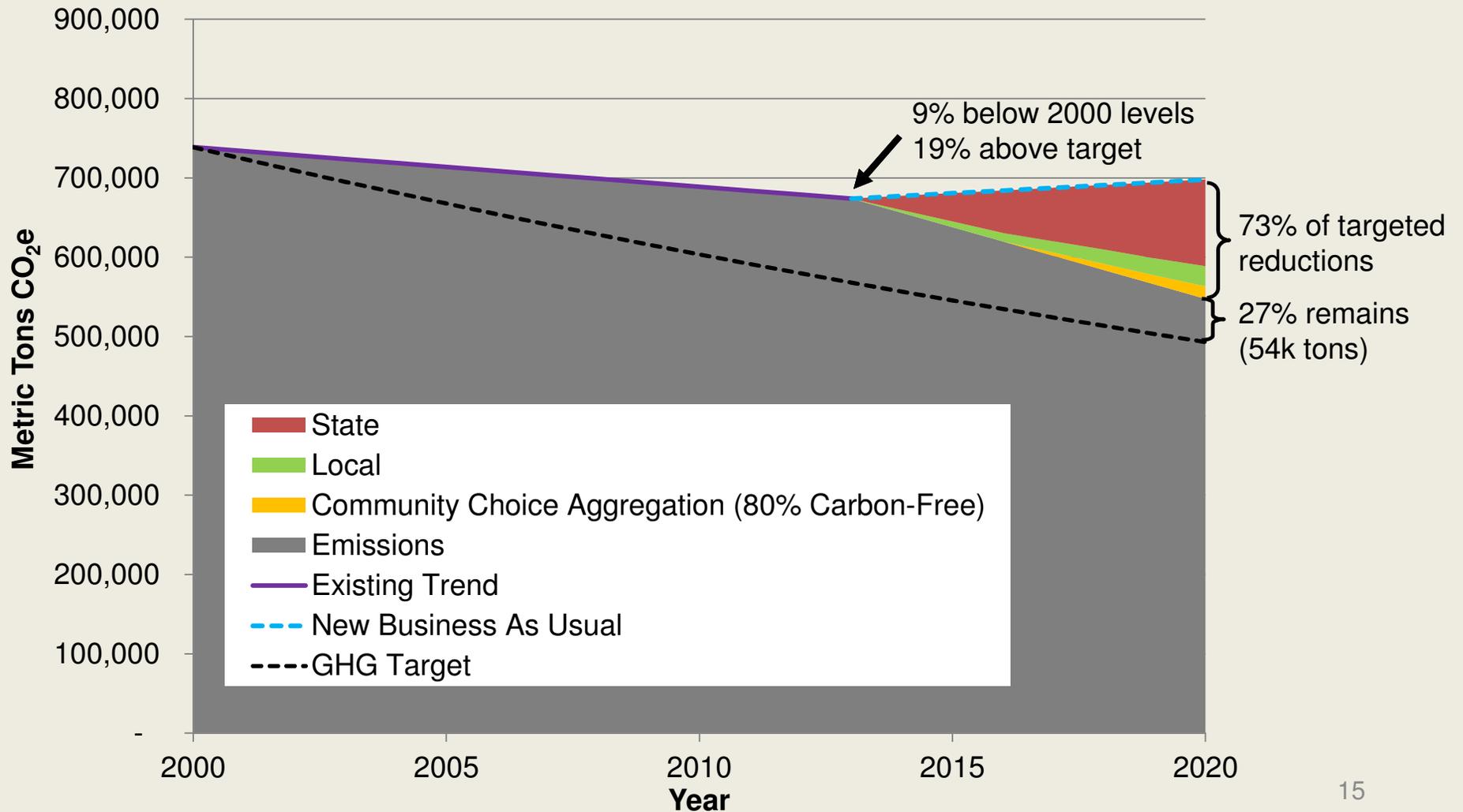


Zero Waste:

- City providing all commercial refuse & recycling services
- Expanded outreach

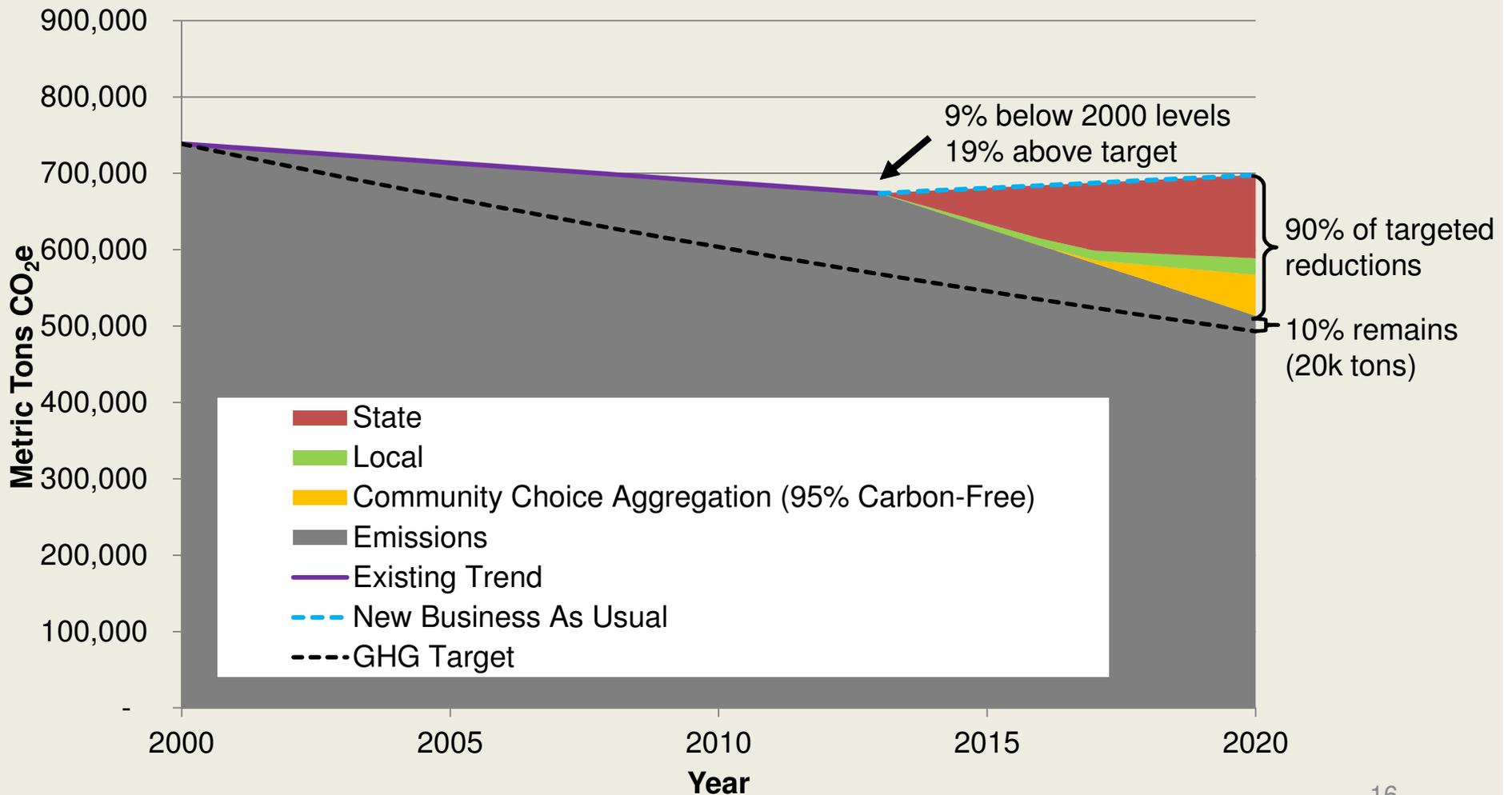
Progress is being made, but additional reductions are required to achieve 2020 target

Scenario 1: Community Choice Aggregation (80% Carbon-Free)



Progress is being made, but additional reductions are required to achieve 2020 target

Scenario 2: Community Choice Aggregation (95% Carbon-Free)



Reaching the 2020 Target and Beyond...



“Idea Competition”

- Planned launch in early 2016
- Goal: Identify innovative ideas & engage with the community

Additional effective GHG reduction strategies & resources are needed to meet CAP targets

Community Climate Action

Berkeley Climate Action Coalition* purpose:

- Raise the profile of climate action efforts
- Build community participation
- Develop & implement local climate action projects



For more information see:

<http://ecologycenter.org/climatecoalition/>

Sustainability Working Group: Integrating Sustainability throughout City Operations

- **Achievements so far:**
 - “Environmental Sustainability” Section in City Council reports
 - Environmental Achievement Awards
 - Sustainability integrated into Citywide Work Plan
- **Planned Initiatives:**
 - Employee Sustainability Training
 - Improved Municipal Recycling



2015 Environmental Achievement Award Winners:
Curbside EV Charging Pilot Program Team

Climate Action is a Fundamental Component of Berkeley's “Resilience”

Environmental sustainability considerations are integrated into:

- Storm water management
- Drought response
- Increasing access to emergency back-up power
- Care & shelter site upgrades



Bio-swale at California and Allston

Main Takeaways

- Berkeley has achieved **significant emissions reductions** despite population increase
- A **“gap” remains** between reductions from existing & planned efforts and reductions needed for 2020 target
- Staff is advancing a range of **high-priority strategies** to fill the “gap” and is developing an **“idea competition”** to identify new strategies
- **Additional resources needed** to meet 2020 and 2050 targets
- **Council input needed** on efforts to accelerate emission reductions and achieve the CAP targets

Questions

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