

# **Update Chapel Hill's 2030 Emissions Reduction Target Using Science- Based Target Methodology**

**Environmental Stewardship Advisory Board**

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**Draft Staff Presentation**

# **Why Set an Updated Science-Based Emissions Target for 2030?**

- **Helps to better define the level of action needed**
- **Represents a fair share of global emissions reduction based on historic emissions and current development levels**
- **Makes it easier to meet the Town's goal of reaching net-zero emissions by 2050**

# What are Chapel Hill's Adopted Emissions Reduction Targets?

2030	2050
50%	Net-Zero

# What's Would the New Mid-Term Target be for 2030?

2030	2050
56.69%	Net-Zero

# How Was the New Target Calculated?

**WWF's One Planet City Challenge Methodology, with support from Carbon Disclosure Project staff**

## **1. Calculate 2018 per capita emissions**

$914,821 / 63,397 = 14.43 \text{ MTCO}_2\text{e/capita}$   
(2017 Scope 1 and 2 emissions) / (2018 city population)

## **2. Calculate reduction target**

$0.5 * (0.921 / 0.732) = 0.629 \text{ (or 62.9\%)}$   
(Correction factor) \* (HDI US / HDI Global)

*HDI = Human Development Index (reflects fair share of emissions)*

# Calculations continued...

## 3. Calculate 2030 per capita emissions

$$14.43 * (1 - 0.629) = 5.35 \text{MTCO}_2\text{e/capita}$$

(2017 per capita emissions) \* (1 -reduction target from step 2)

## 4. Calculate 2030 absolute emissions

$$5.35 * 74,026 = 396,194.30 \text{ MTCO}_2\text{e}$$

(2030 per capita emissions) \* (2030 projected city population)

## 5. Calculate 2030 reduction target

$$914,821 - 396,194.30 / 914,821 = 56.69\%$$

(2017 Scope 1 and 2 emissions – 2030 absolute emissions) / (2017 Scope1 and 2 emissions) \* 100