

The background image shows a scenic view of a river. On the left, a large, multi-story white building with many windows is reflected in the calm water. A bridge with a single arch spans the river in the middle ground. On the right, there are green trees and a small building. The sky is clear and blue. A blue rectangular box with white text is overlaid in the center of the image.

# NORTHFIELD CLIMATE ACTION PLAN UPDATE – APRIL 2021

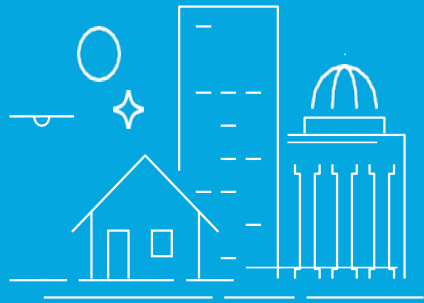
The City of Northfield is committed to **100% carbon-free electricity** by 2030 and being a **100% carbon-free community** by 2040.



The Climate Action Plan was adopted by City Council on November 5, 2019



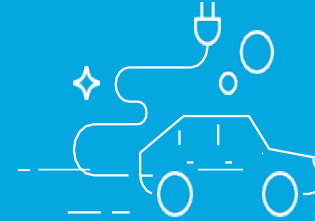
# 3 Year Targets



Assessment of City assets completed and a plan in place to reduce emissions from city operations

Commitment from large energy users to meet city climate goals

Building benchmarking program established



City fleet assessment completed and purchasing policy updated

Additional public EV infrastructure available in the community



1 MW of additional renewable energy

8% of businesses and 19% of residences have made deep energy efficiency improvements

PiE Jump Start goals have been achieved



10 miles of additional bike and pedestrian infrastructure (trails, paths, sidewalks)

Community-wide mobility-sharing program in place



Urban forestry program established that includes robust tree planting, soil restoration, and other sustainable practices

Resilience is incorporated into city planning and budget processes



Zero-waste plan developed and adopted; including a plan for a waste processing facility

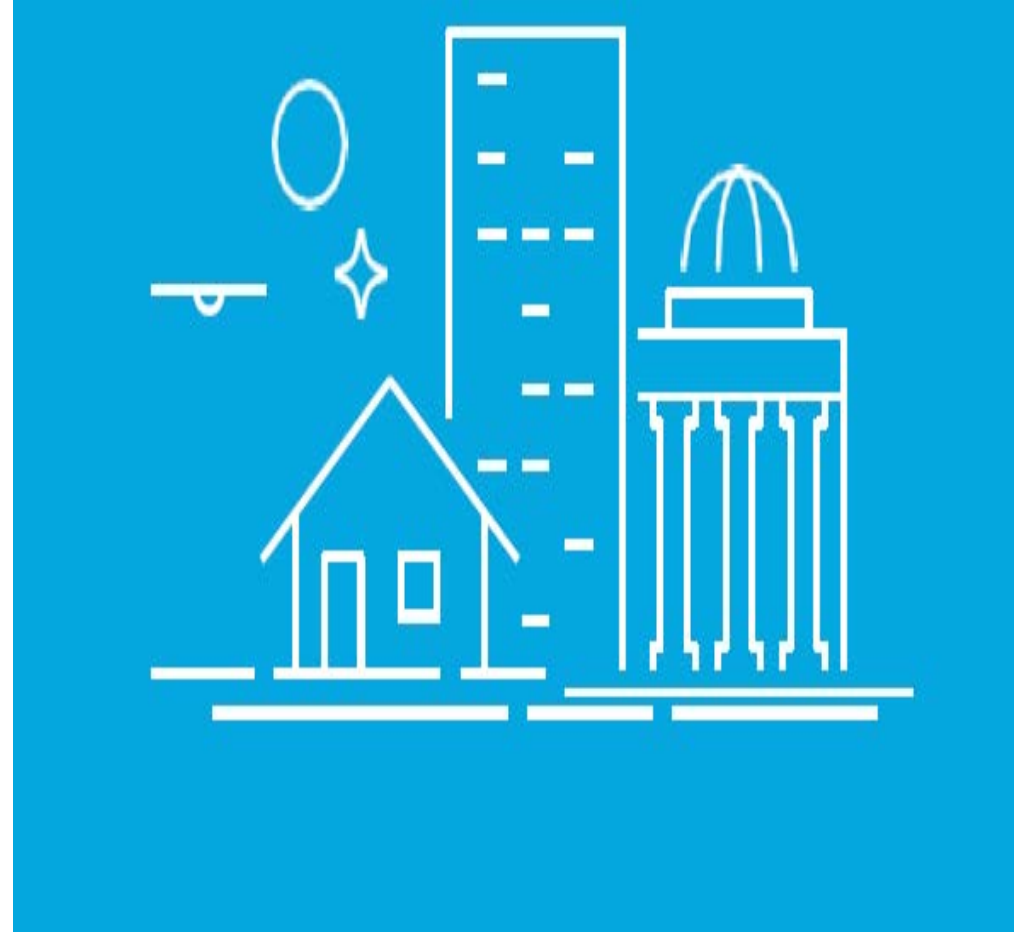
Zero-waste packaging ordinance adopted

Farm to school program in place



# Building Energy

- ✓ Turn Key audit on 5 City properties to assess energy efficiency opportunities
- ✓ Large Energy Consumer Group – meeting to learn and build network, resources
- ✓ City operations benchmarking in B3 system



# Renewable Energy

- ✓ Solar for Northfield report
- ✓ On-site solar review for City properties – recommendations soon
- ✓ Commercial energy efficiency and conservation participation
- ✓ Partners in Energy jump start





# Infrastructure – Natural and Built

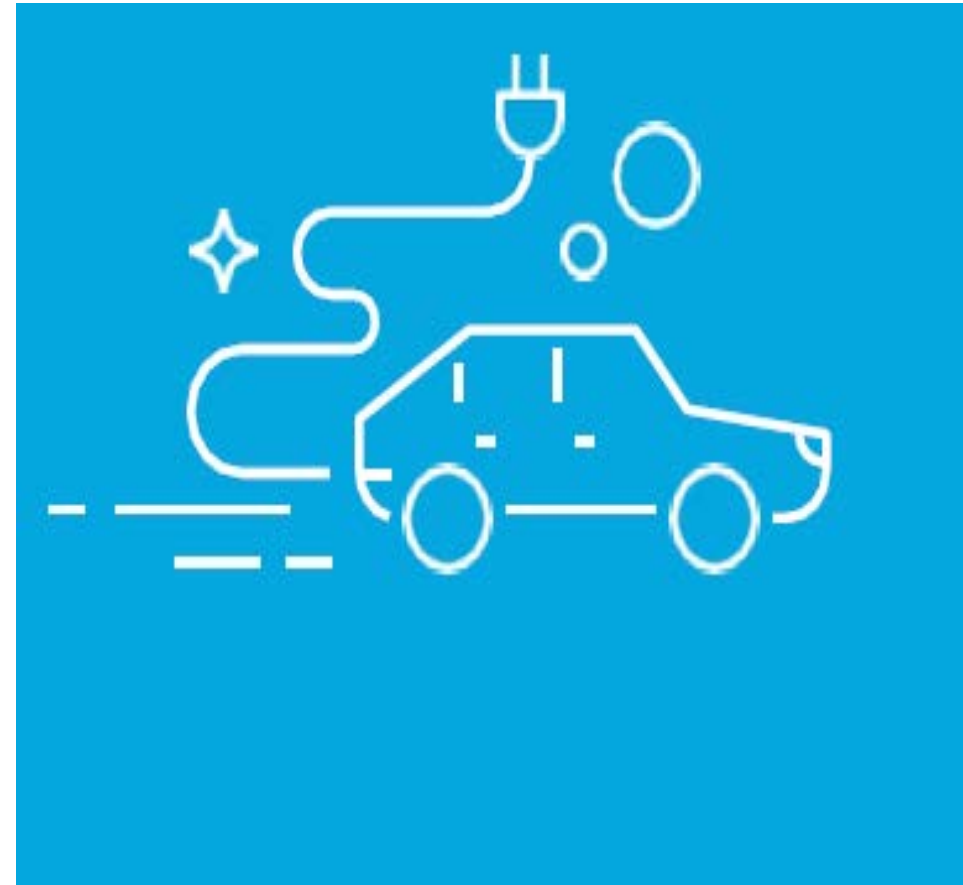
- ✓ Grant from MPCA for tree planting – will include some planning
- ✓ Stormwater model updated and using for some neighbor flood projects





# Vehicle Emissions

- ✓ City fleet study on 21 representative vehicles. Online tool use in future purchasing review and capital expense plan. No cost to City as part of Xcel Energy pilot project.
- ✓ Second public electric vehicle charging station installed at 5<sup>th</sup> & Washington parking lot with help from Rotary grant.



# EV charging stations (since August 2019)

- Avoided 3,483kg of greenhouse gas emissions
- That's like planting 89 trees and letting them grow for 10 years





# Mobility

- ✓ Hwy 246 Roundabout completed adding walking/biking safety at intersection
- ✓ 3.451 miles of on-street bike lanes
- ✓ 0.42 miles of new sidewalk
- ✓ Conversations with colleges and research on mobility sharing



# Waste reduction

- ✓ Community survey on compost knowledge/barriers
- ✓ Compost workshops (March/April)
- ✓ Draft Zero Waste plan in process
- ✓ School district has limited farm to school program. Possibilities to expand with community help.

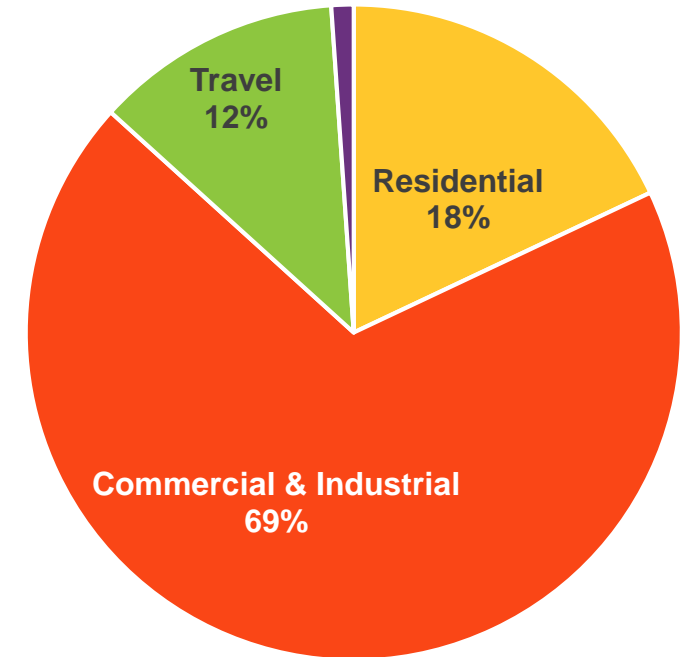




# Community Emissions Summary

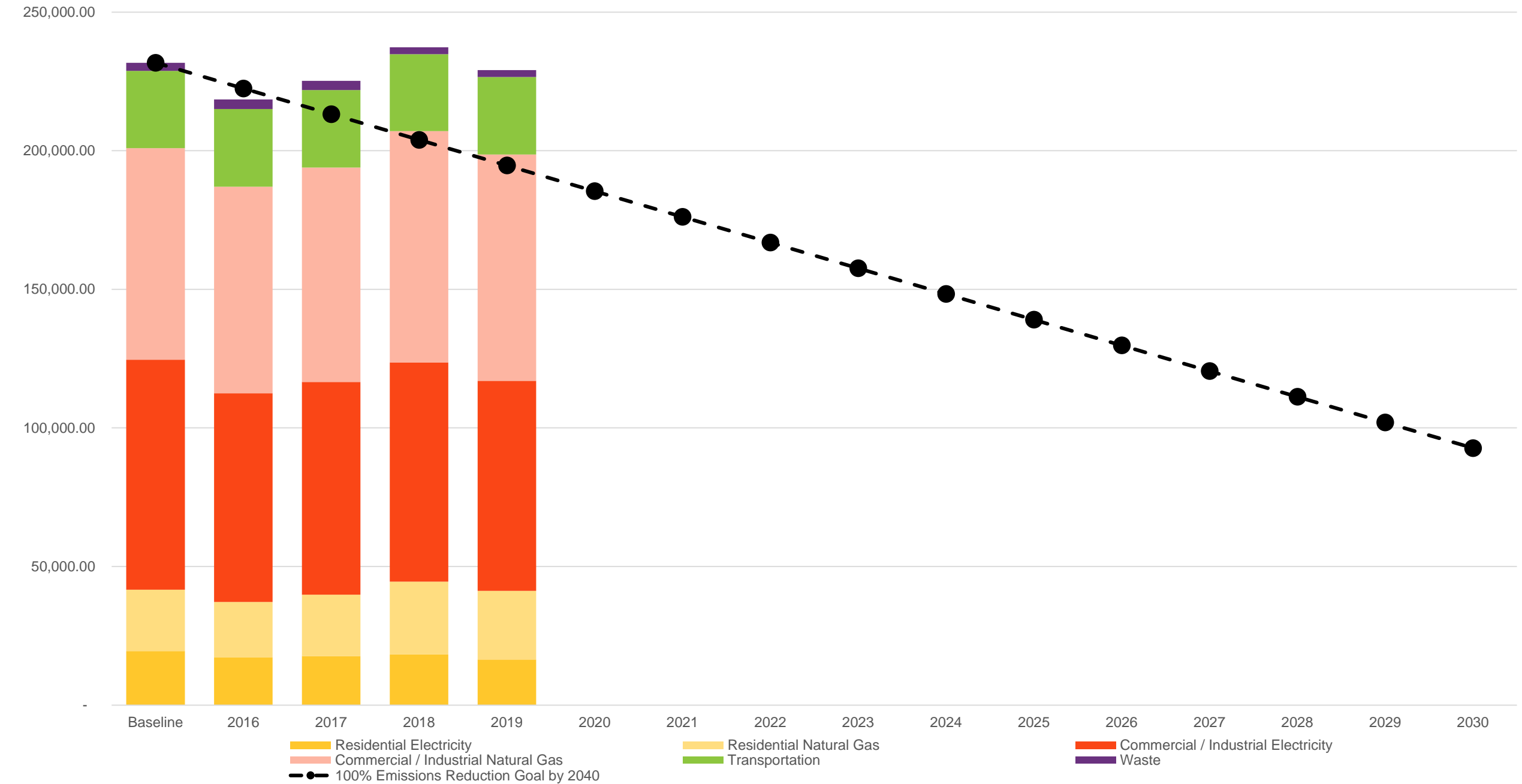
2019 (metric Tons CO2e)		
Residential	41,205.82	17.99%
Commercial & Industrial	157,458.00	68.73%
Travel	27,903.00	12.18%
Waste	2,515.00	1.10%
Total	229,081.82	
Residential Natural Gas	24,779.84	10%
Commercial Natural Gas	81,659.00	34%
Total Natural Gas	106,438.84	46%
Residential Electricity	16,425.98	18%
Commercial Electricity	75,799.00	82%
Total Electricity	92,224.98	40%

2019 Summary Emissions (tons CO2)



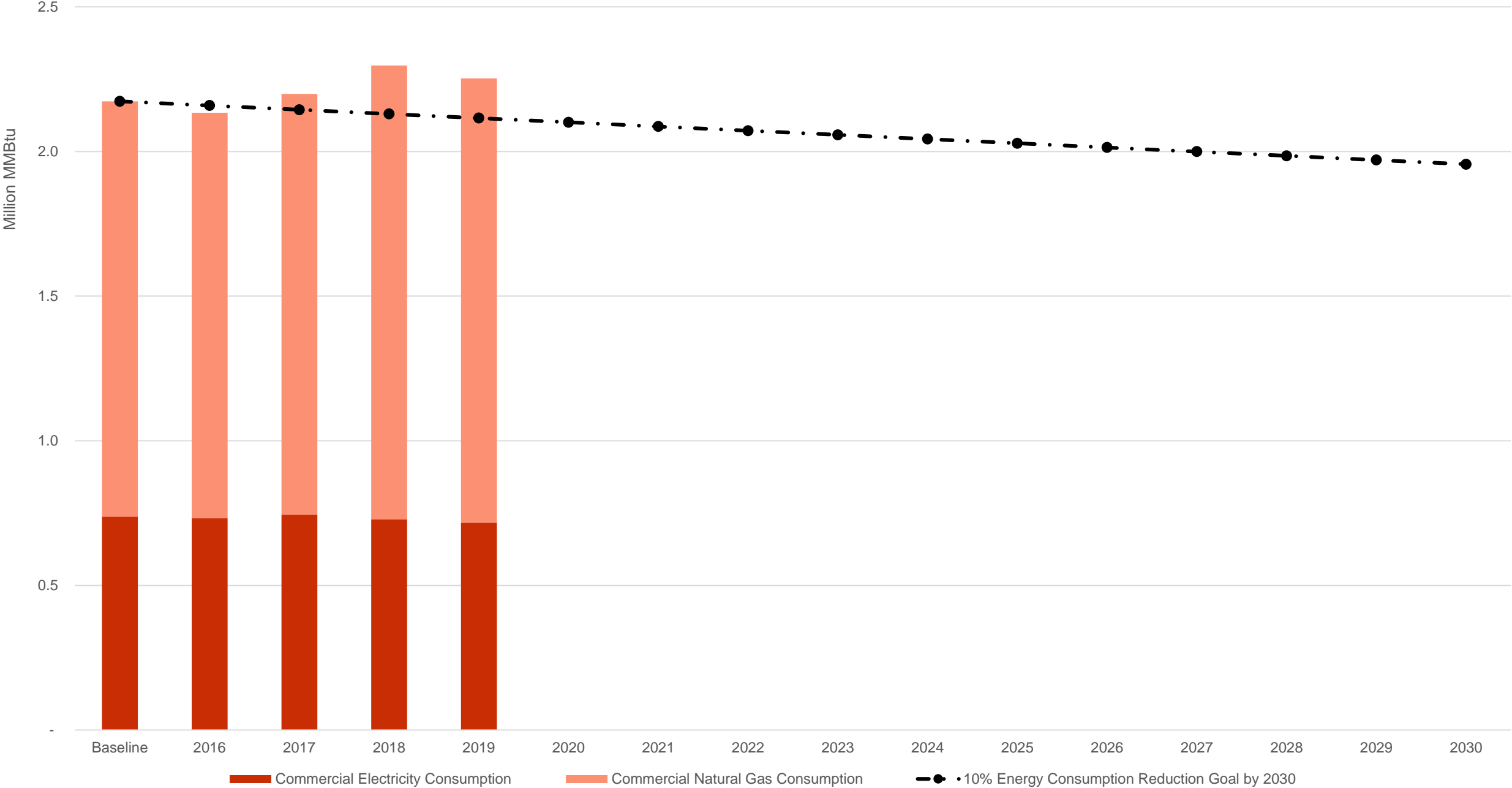


Community Emissions Inventory and Reduction Goal (tons GHG emissions)

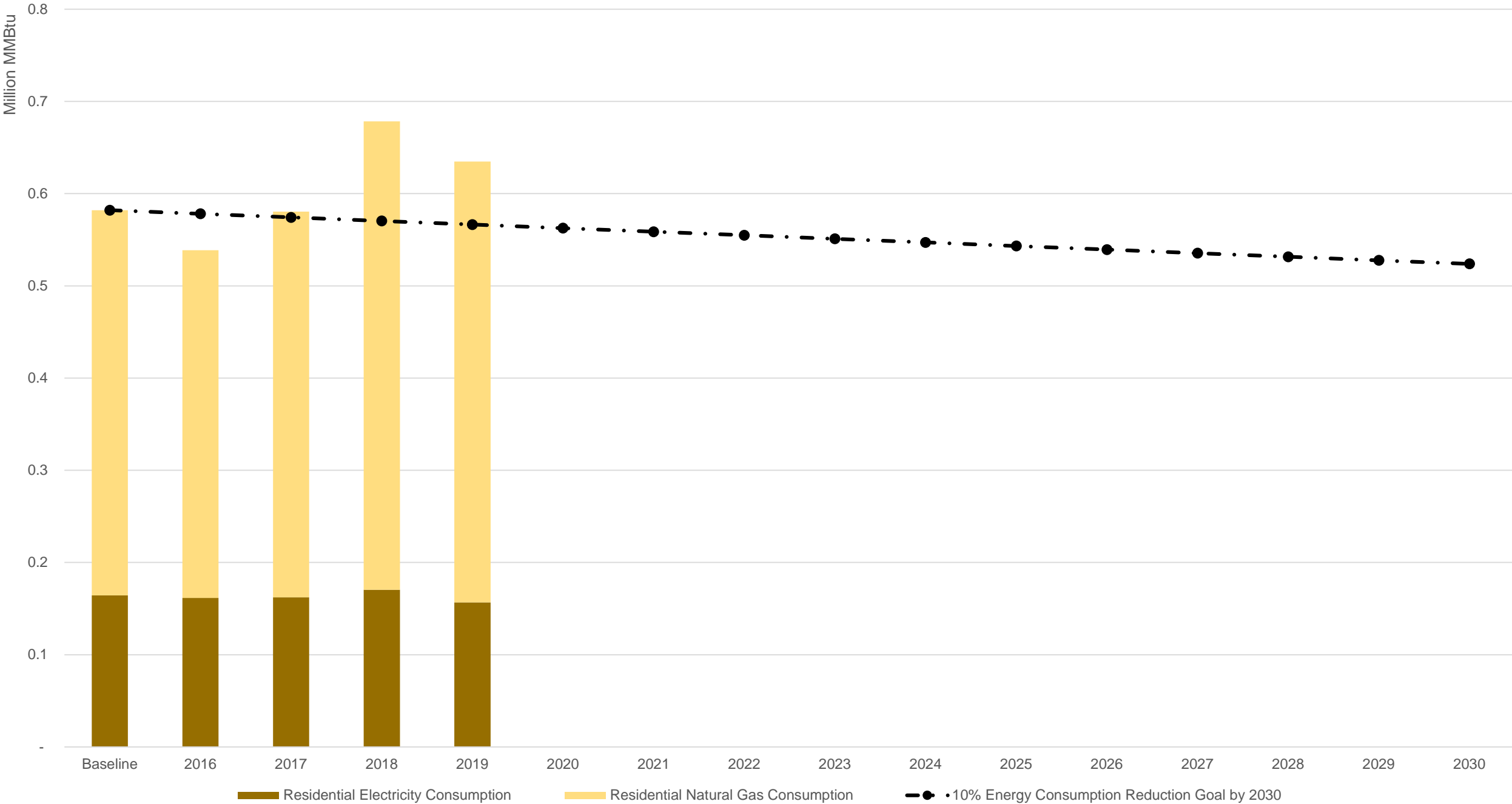




Commercial Energy Consumption Against Reduction Goal



Residential Energy Consumption Against Reduction Goal



# Installed Rooftop Solar (MW)

Installed Residential Rooftop Solar Capacity

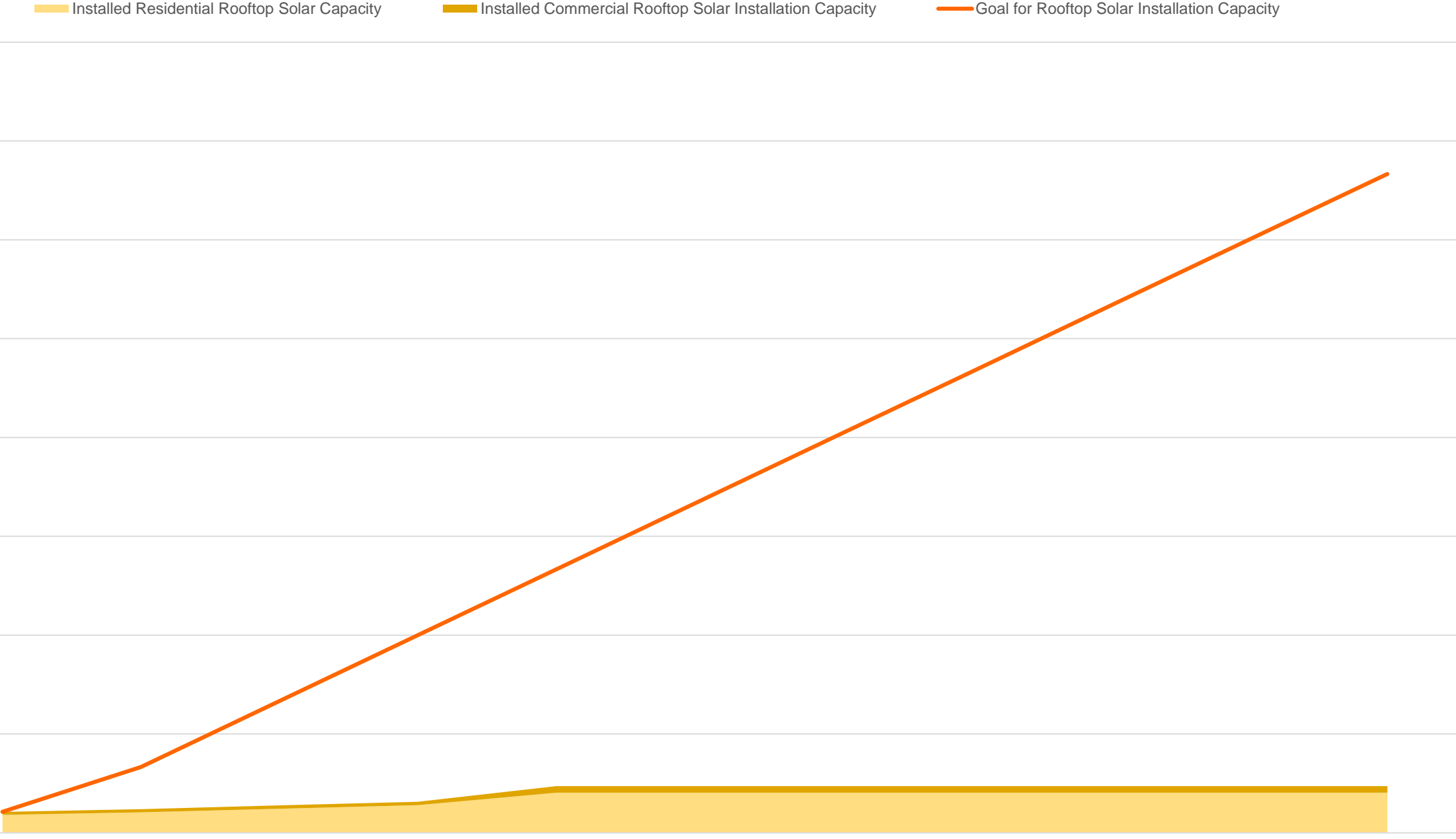
Installed Commercial Rooftop Solar Installation Capacity

Goal for Rooftop Solar Installation Capacity

Megawatts (MW) Capacity

16.00  
14.00  
12.00  
10.00  
8.00  
6.00  
4.00  
2.00  
0.00

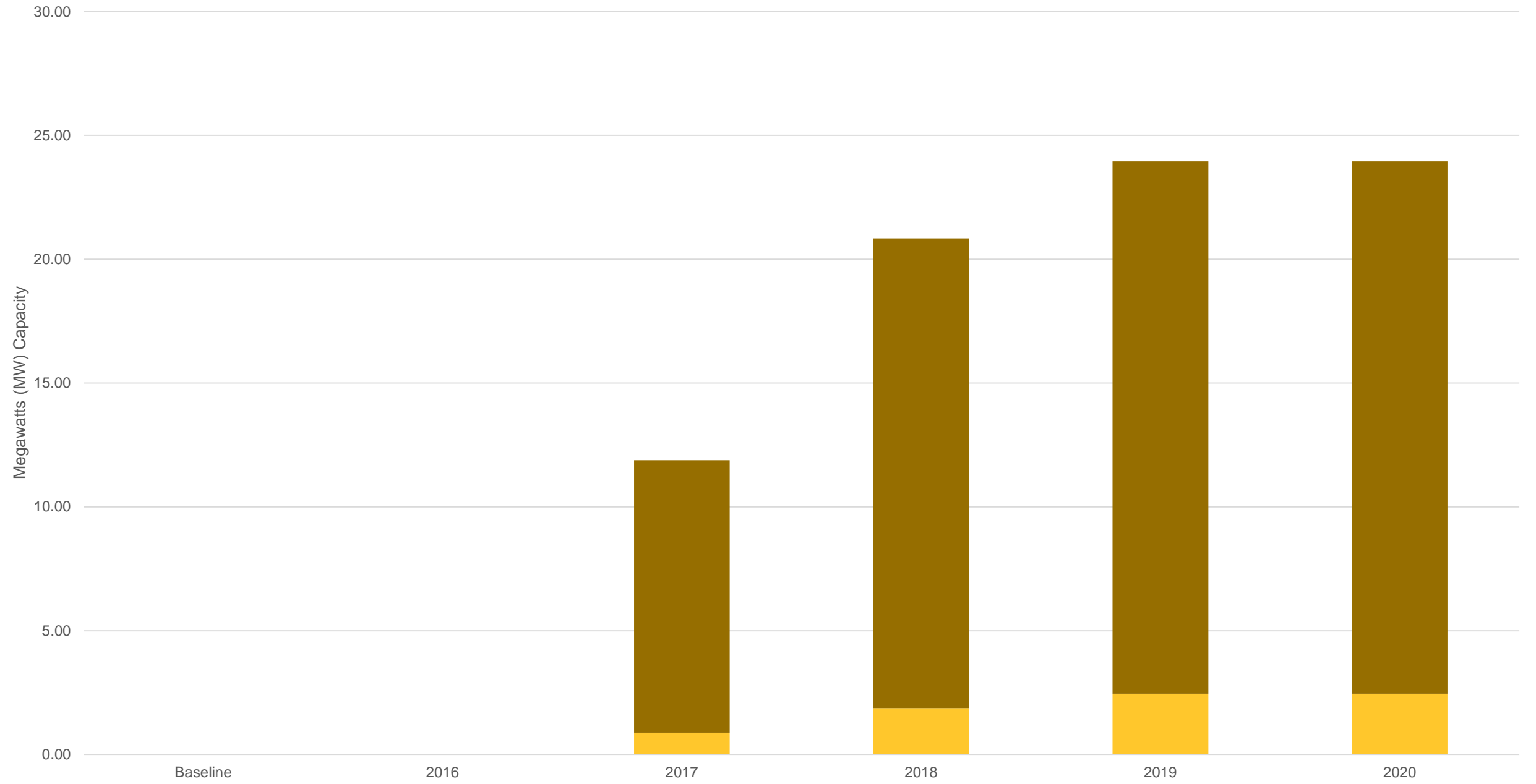
Baseline 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025





# Participation in Community Solar Gardens (MW)

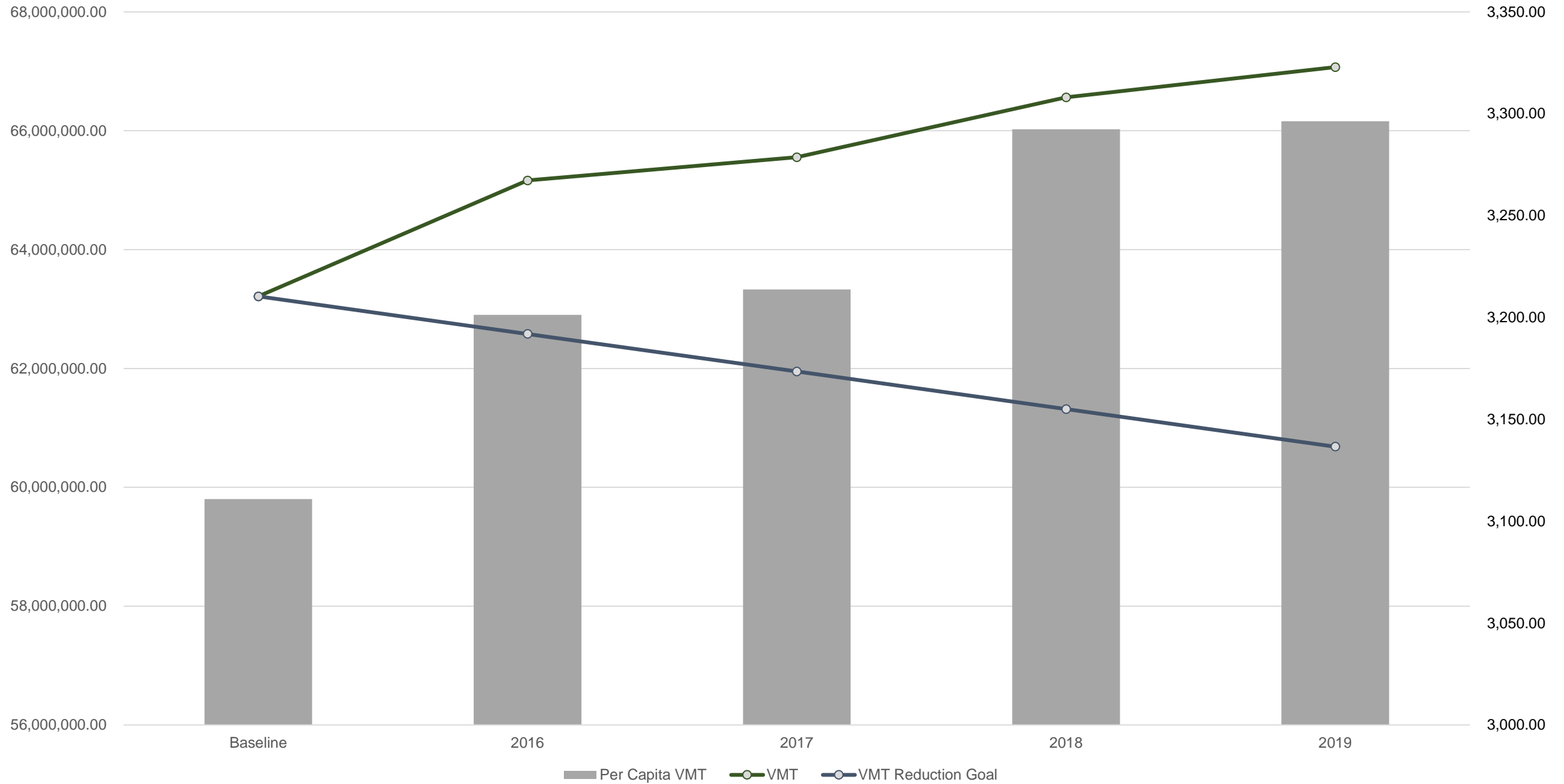
■ Subscribed Residential Solar Garden Capacity    ■ Subscribed Commercial Solar Garden Capacity







Vehicle Miles Traveled: Total and Per Capita



**Northfield Energy Action Team**  
[ci.northfield.mn.us/energy](http://ci.northfield.mn.us/energy)



Help us become the city of  
**Cows,  
Colleges,  
and Clean  
Energy!**

City Of  
**Northfield**  
Minnesota

**Xcel Energy**  
**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

- Program Participants - 1,539
- Energy Savings (MMBtu) - 38,468
- Greenhouse Gas Emissions Savings (MTCO<sub>2</sub>e) - 2,743

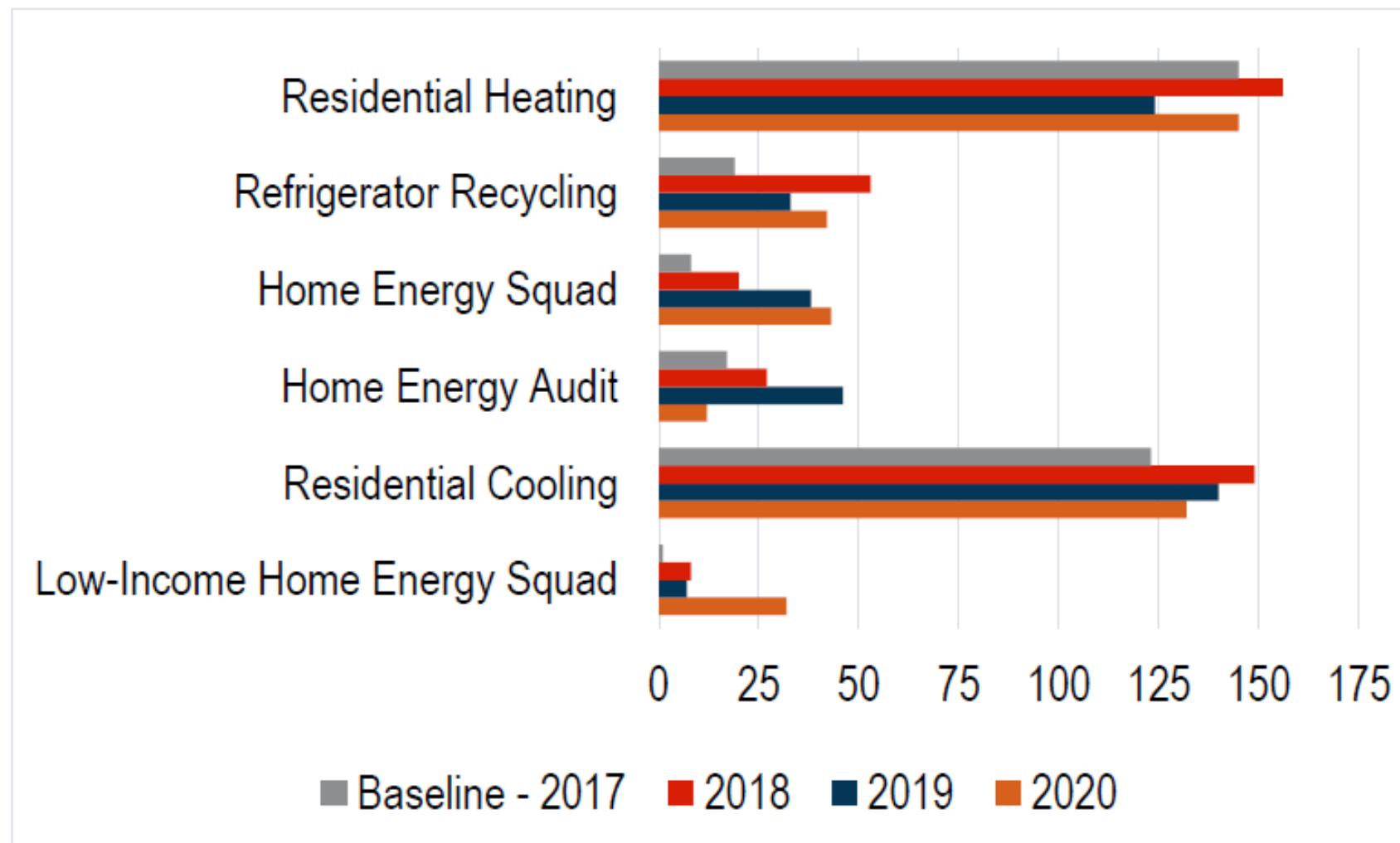
City Of  
**Northfield**  
Minnesota



# Top Programs - Residential Participation

2020 Total Participation:

747



# Top Programs - Commercial & Industrial Participation

2020 Total Participation:

110

Commercial Refrigeration Efficiency

Multi-Family Building Efficiency

Small Business Lighting

Lighting Efficiency

Heating Efficiency

Cooling

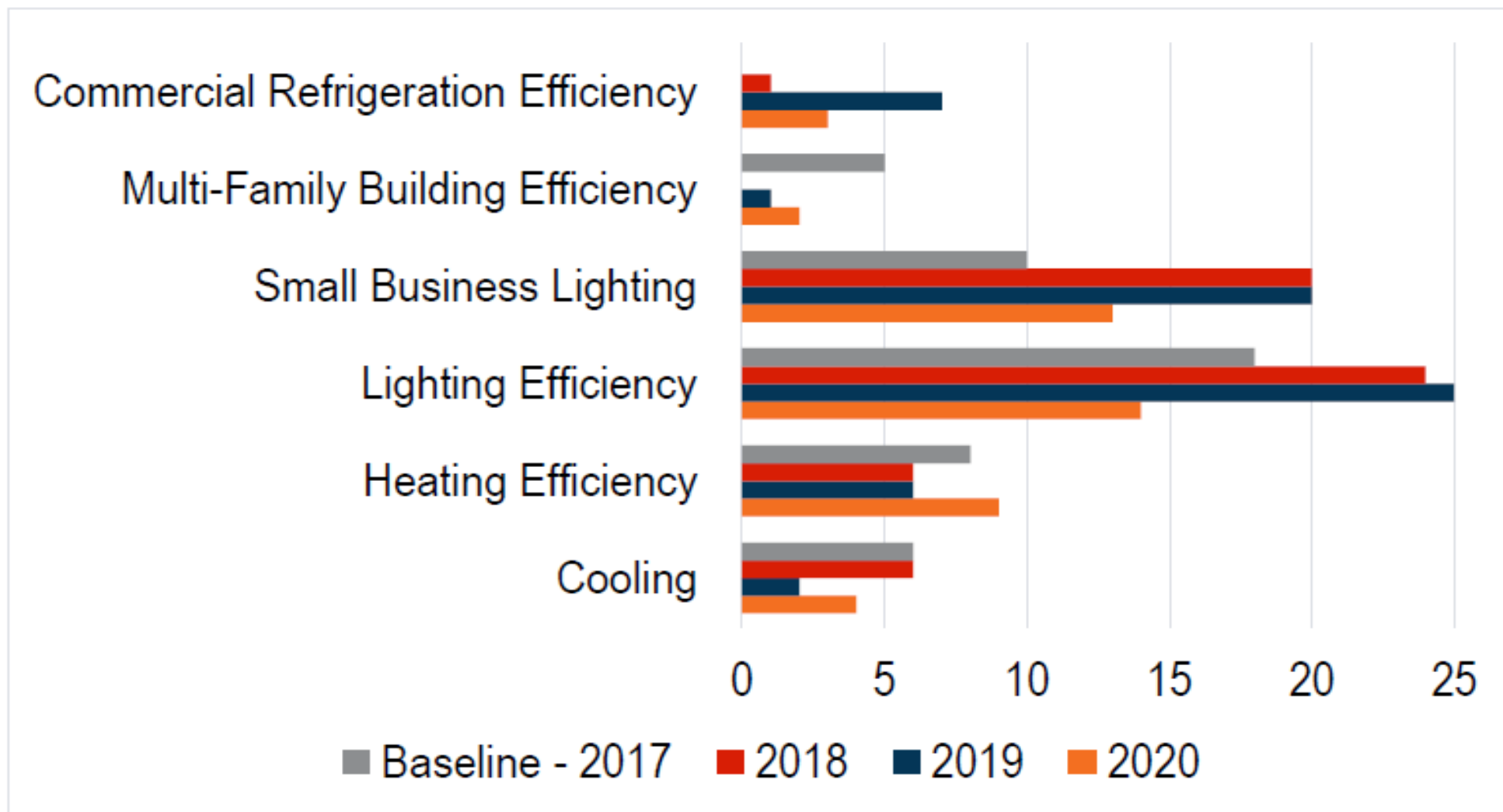
■ Baseline - 2017

■ 2018

■ 2019

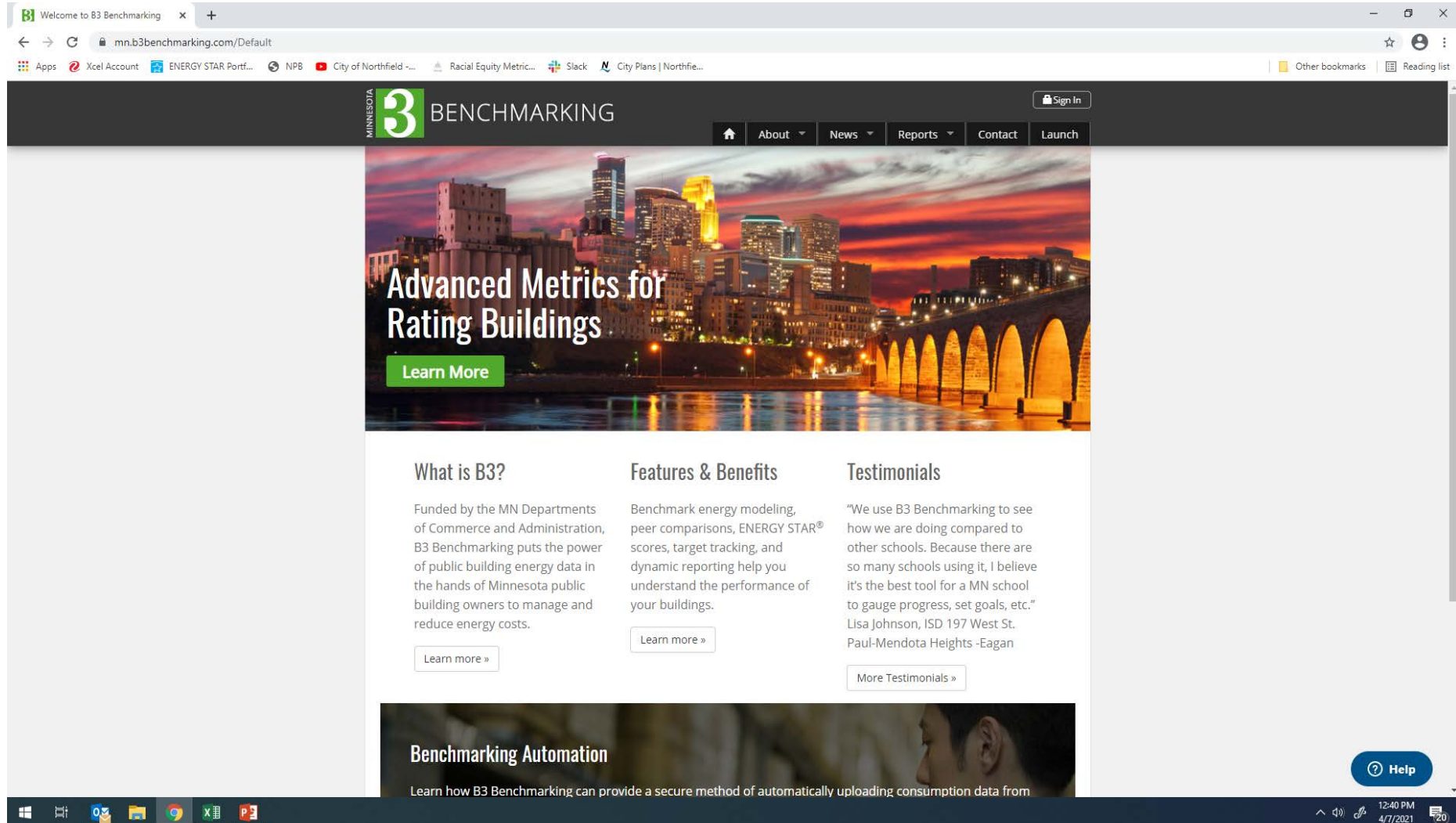
■ 2020

0 5 10 15 20 25





# Tracking energy usage



The screenshot displays the homepage of the Minnesota B3 Benchmarking website. The browser's address bar shows the URL `mn.b3benchmarking.com/Default`. The website's header features the "MINNESOTA 3 BENCHMARKING" logo and a navigation menu with links for Home, About, News, Reports, Contact, and Launch. A "Sign In" button is also present in the top right corner. The main content area is dominated by a large banner image of a city skyline at dusk, with the text "Advanced Metrics for Rating Buildings" and a green "Learn More" button. Below the banner, there are three columns of content: "What is B3?", "Features & Benefits", and "Testimonials". Each column includes a brief description and a "Learn more" button. The "Testimonials" section features a quote from Lisa Johnson, ISD 197 West St. Paul-Mendota Heights -Eagan. At the bottom of the page, there is a section titled "Benchmarking Automation" with a sub-header "Learn how B3 Benchmarking can provide a secure method of automatically uploading consumption data from". A "Help" button is located in the bottom right corner of the website.

Welcome to B3 Benchmarking

mn.b3benchmarking.com/Default

Apps Xcel Account ENERGY STAR Portf... NPB City of Northfield ~... Racial Equity Metric... Slack City Plans | Northfie...

Other bookmarks Reading list

MINNESOTA 3 BENCHMARKING Sign In

About News Reports Contact Launch

Advanced Metrics for Rating Buildings

Learn More

What is B3?

Funded by the MN Departments of Commerce and Administration, B3 Benchmarking puts the power of public building energy data in the hands of Minnesota public building owners to manage and reduce energy costs.

Learn more »

Features & Benefits

Benchmark energy modeling, peer comparisons, ENERGY STAR® scores, target tracking, and dynamic reporting help you understand the performance of your buildings.

Learn more »

Testimonials

"We use B3 Benchmarking to see how we are doing compared to other schools. Because there are so many schools using it, I believe it's the best tool for a MN school to gauge progress, set goals, etc."

Lisa Johnson, ISD 197 West St. Paul-Mendota Heights -Eagan

More Testimonials »

Benchmarking Automation

Learn how B3 Benchmarking can provide a secure method of automatically uploading consumption data from

Help

12:40 PM 4/7/2021

# GreenStep City – Tracking Sustainability

- Step 3 in 2015
- Step 4 in 2020
- Step 5 will be awarded in June 2021
- Improved in at least three metrics from past year.
- Useful to help guide staff set goals for improvement





# Challenges

- COVID-19
- Challenges with residential solar and interconnection fees



# Work in 2021 and beyond

- City Operations internal goals for energy generation and efficiency
- Reporting format to share with community
- On-site Solar
- Building Energy Benchmarking and Policies
- Trees – Emerald Ash Borer Plan
- Zero Waste and composting
- Carbon Reduction Fund
- Collaborations (colleges, community partners, other cities)