

*University of Minnesota Duluth's*

# CARBON COMMITMENT

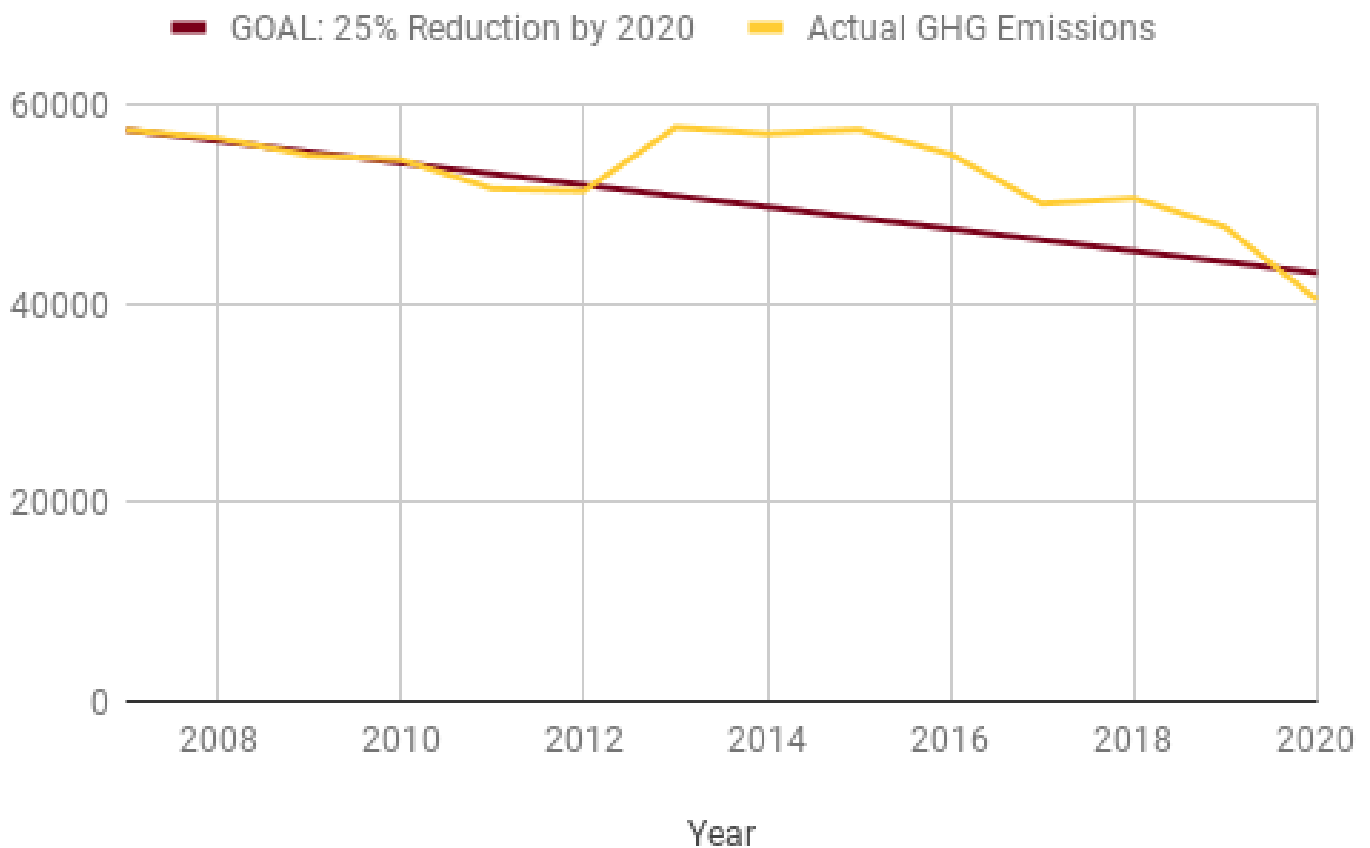
In 2007, UMD, along with hundreds of other colleges and universities vowed to lead on climate action by committing to reduce campus greenhouse gas emissions 25% by 2020 and to be carbon neutral by 2050. The 2020 numbers are in and UMD has REACHED THE FIRST GOAL!

↓ **17,087**  
*metric tons of CO2*

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**29%**  
*reduction over 2007 baseline*

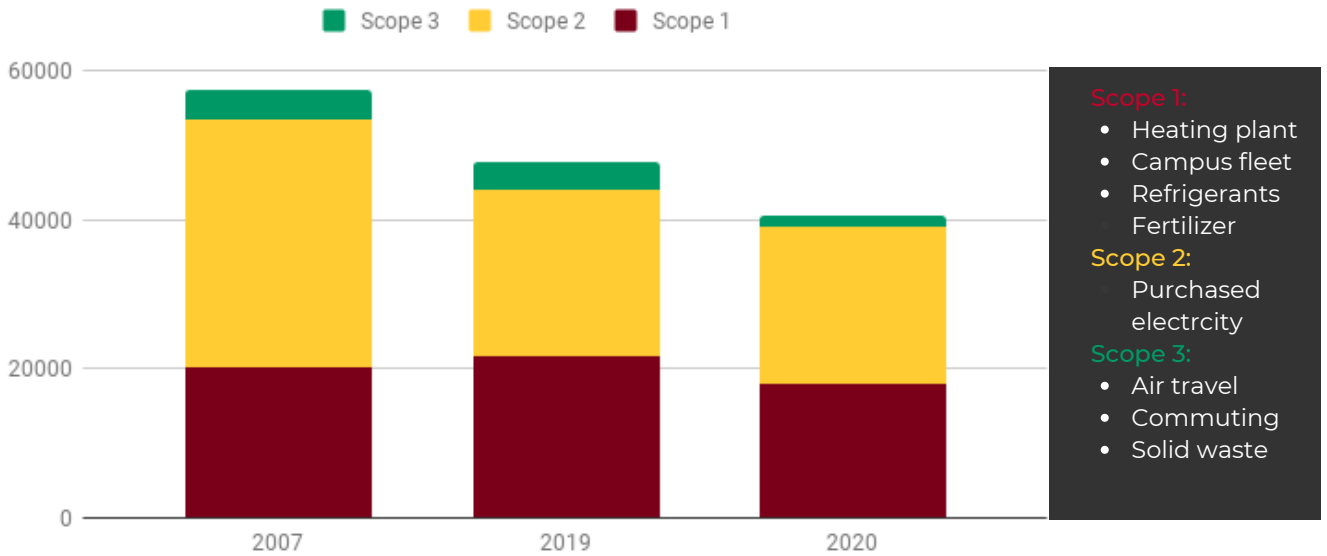
## UMD's Greenhouse Gas Emissions | 2007 - 2020



**\*2007: 57,562 metric tons of CO2**

**\*2020: 40,475 metric tons of CO2**

### Comparison of UMD GHG Emissions by Type



## How we got here

The first comprehensive inventory of UMD's greenhouse gas emissions was undertaken in 2007, establishing our baseline at 57,562 metric tons of CO<sub>2</sub>. In 2010, the UMD Sustainability Committee (which was made up of faculty, staff, and students) developed the UMD Energy Action Plan (EAP) which outlined specific goals and actions for the campus to take that would reduce greenhouse gas emissions.

Emphasis was placed heavily on energy efficiency and conservation because approximately 90% of the campus carbon footprint came from heating, cooling, and powering campus buildings. Reducing emissions from transportation sources and solid waste were also addressed. Prioritizing energy efficiency and conservation have definitely had an impact. The largest reductions have come from purchased electricity emissions which have dropped 36% since 2007. UMD's energy efficiency upgrades, coupled with MN Power's investments into renewable energy sources for electricity generation have made this possible.

*electricity emissions are down*

# 36%

## 2020 in context

In the simplest terms, 2020 was *not* a typical year for campus operations and it is worth acknowledging that we likely would not have met our GHG reduction goal without COVID-19 and its subsequent interruptions to campus life. With a relatively mild winter and a huge LED conversion project underway, it's likely

campus would have been close, but not made the 25% reduction needed. As one astute staff member pointed out recently, we didn't truly reduce emissions that much, we simply scattered them out to people's homes. There will be a rebound effect, but we can also use this as momentum to push for future reductions.



## *Carbon Neutral by* **2050**



### Challenges

Time and resources. To achieve the reductions we have committed to, UMD and the U of M system as a whole must plan for higher-cost strategic investments in the near future to reduce greenhouse gas emissions in the most impactful way. Climate and economic models predict that high upfront costs now will still be lower than the costs of dealing with crisis-level climate events and disruptions in the future. Time is of the essence to make these actions a reality.

### Action Needed

Our students are demanding action and it is the institution's duty not only to educate these future leaders but to lead by example. There is also system leadership to tackle these issues and the opportunity to approach our work and our world differently after COVID -- so let's think bigger and bolder than ever before.

- Commit to a 50% reduction in campus greenhouse gas emissions by 2030 as an interim goal toward our Second Nature 2050 carbon neutrality commitment
- Students graduate with a baseline knowledge of justice, climate, and sustainability issues
- Convene a climate action plan committee to outline goals and actions to reduce GHGs
- Empower campus leaders at all levels to meet interim goals and the 2050 commitment
- New construction projects should go through rigorous climate impact assessment and must meet/exceed MN B3 guidelines
- Retrofit/decommission existing infrastructure to meet carbon goals
- Pivot to more efficient heating and cooling system & reduce natural gas reliance
- Invest in more carbon-neutral energy sources, with a focus on solar
- Convert the entire campus to LEDs
- Utilize virtual technology to reduce travel and/or require carbon offsets for air travel
- Communicate and celebrate success