

City of Charlottesville Fiscal Year 2025 Annual Energy and Water Performance Report - CCS Executive Summary



The City of Charlottesville’s Energy and Water Management Program (EWMP) monitors and manages energy and water usage at all municipal and school sites. It has continued its strong partnership with Charlottesville City Schools (CCS) set in place by the energy and water saving goals in the 2019 Resolution for Charlottesville City Schools Energy and Water Performance. This summary highlights notable actions and findings for CCS from the [City of Charlottesville FY2025 Annual Energy and Water Performance Report \(LINK\)](#).

Climate Action Workplan Alignment

The EWMP continues to work towards meeting their energy and water reduction goals to help the City make progress to meeting their larger greenhouse gas emissions reduction goals and Climate Action Plan commitments. The [City’s Climate Action Plan \(LINK\)](#) presents strategies and key actions to reduce municipal greenhouse gas emissions by switching to lower emissions fuel sources and by reducing energy use through efficiency and conservation measures.

Utility Reduction Goals

Energy Reduction Goal - 30% reduction in Energy Use Intensity by FY2030

Water Reduction Goal - 30% reduction in Water Use Intensity by FY2030

Solar power generation has been identified as the primary renewable energy technology to be deployed, and multiple avenues for adding more capacity are being explored. These include local funding as well as power purchase agreements (PPAs) to install solar energy systems onsite at facilities.

FY2025 Key Performance Findings

In FY2025, the school portfolio spent **\$1.55 million on energy and water utilities** (Figure 1), accounting for 41% of Charlottesville municipal utility spending. The increase in utility expenditures from FY2024 is associated with increasing utility rates, increased utility usage due to CMS construction/renovation and weather-related changes affecting space heating, and CATEC being added to the CCS portfolio in FY2025. When compared to the portfolio’s baseline year of FY2011, there was a 53% increase in total utility costs. With respect to utility consumption, there was a 6% increase in electricity, a 15% increase in natural gas, and 17% decrease in water.

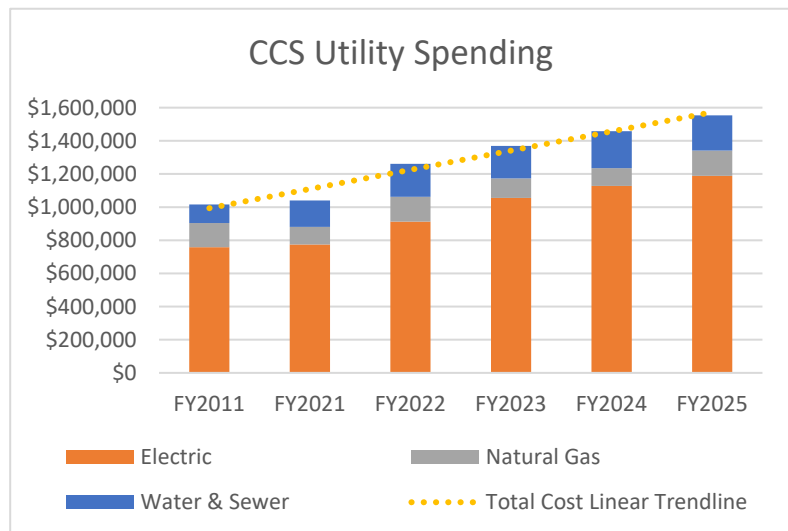


Figure 1: Charlottesville City School’s utility spending for the past 5 fiscal years and FY2011 (baseline year) for each commodity type across all school facilities.

Many CCS school buildings had, on average, an energy use intensity (EUI) and water use intensity (WUI) in FY2025 close to the regional average for school buildings.

- For FY2024, **CCS buildings had an average EUI of 51.8 kBtu/sq.ft. which is slightly above the FY2011 baseline.** Therefore, schools need to reduce their EUI by 32% (across all schools) to reach the 2030 reduction goal of 35 kBtu/sq.ft. (Figure 2).
- Overall, **there has been an 23% reduction in WUI when comparing FY2025 to FY2011 baseline year.** CCS needs to reduce its WUI an additional 7% by 2030 to reach the 30% reduction goal of 8.2 gal/sq.ft. (Figure 3). It is anticipated that replacing any water wasting fixtures with water efficient specifications will help CCS reduce usage by 18%, and with the remaining savings coming from behavioral changes to save water.
- An ENERGY STAR score of 75 is needed to apply for ENERGY STAR certification. Tall Oaks Elementary achieved ENERGY STAR certification in July 2024. In FY2025, one out of ten schools have reached the 75 score (Table 1). Our goal is to have all ten schools reach a 75 score by 2030.

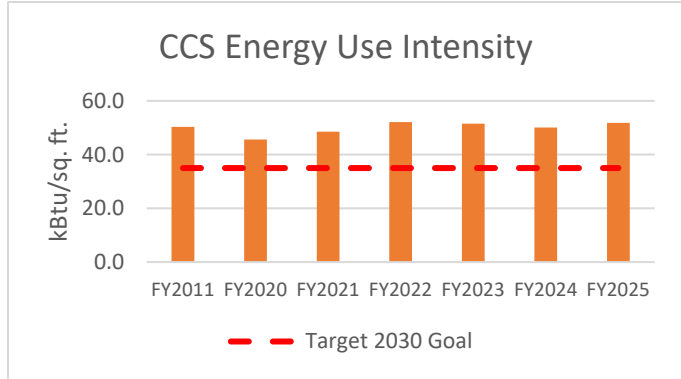


Figure 2: Annual municipal weather-normalized EUI. Red dashed line notes the FY2030 target of 30% reduction from the baseline year, FY2011.

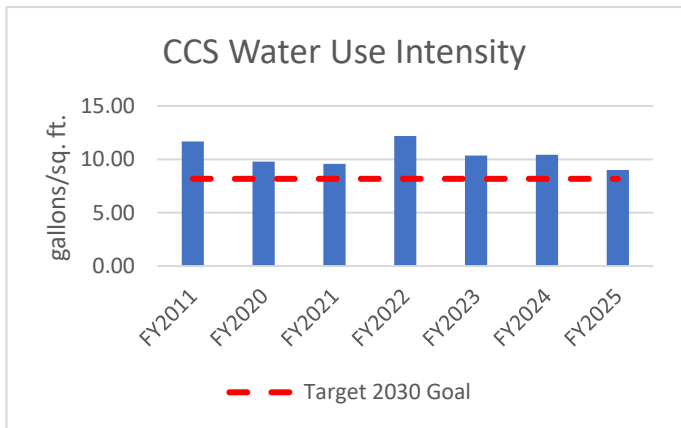


Figure 3: Annual municipal WUI. Red dashed line notes the FY2030 target of 30% reduction from the baseline year, FY2011. **Note:** irrigation accounts were omitted.

The CCS portfolio has seen a downward trend in greenhouse gas (GHG) emissions since the FY2011 baseline. However, compared to FY2024, greenhouse gas emissions increased in FY2025 due to the increase in electricity and natural gas use (Figure 4). The expansion of the portfolio to include CATEC affected this as well as the increase in space heating needs due to weather. We expect to see a reduction in greenhouse gas emissions in FY2026 with the solar photovoltaic (PV) system installation at CATEC and energy conservation measures such as proposed lighting upgrades at schools. The EWMP will continue to monitor this in FY2026.

School Facilities	ENERGY STAR Score		
	FY2011	FY2024	FY2025
Charlottesville High School <i>(ES Cert. 2009)</i>	61	61	56
Charlottesville Middle School	36	45	38
Greenbrier Elementary School <i>(ES Cert. 2009)</i>	61	65	60
Jackson-Via Elementary School <i>(ES Cert. 2009)</i>	45	49	42
Lugo-McGinness Academy	**	83	77
Summit Elementary School <i>(ES Cert. 2009)</i>	47	50	50
Sunrise Elementary School <i>(ES Cert. 2009)</i>	67	73	68
Tall Oaks Elementary School <i>(ES Cert. 2009/2024)</i>	79	77	69
Trailblazer Elementary School	52	65	54
Trailblazer School Annex	1	19	12
Walker Upper Elementary School	33	23	20

Table 1: CCS benchmarked facilities and ENERGY STAR scores for FY2011 (baseline year), FY2024, and FY2025.

FY2025 CCS Program Actions and Highlights

Operational Actions

- Conducted monthly meetings of EWMP and CCS staff to discuss operations and utility performance of CCS facilities.
- Continued to implement **demand-side management** of the facilities building automation systems (BAS) and **review HVAC schedules** to ensure buildings were operating efficiently.

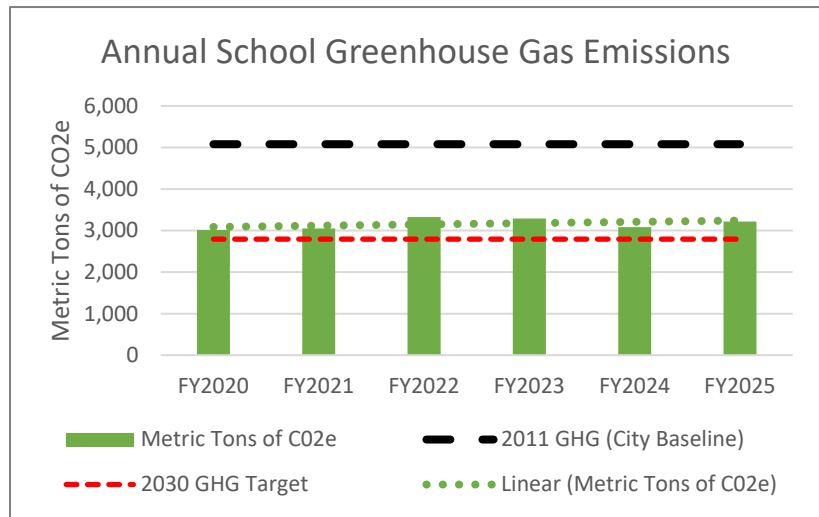


Figure 4: Greenhouse gas emissions for the past 6 fiscal years, FY2011 (baseline year), and 2030 GHG Target across all school facilities.

Technological Actions

- Continued to **replace lighting, replace HVAC equipment, and make improvements to building envelope** across various facilities.
- Implemented several energy upgrades at Charlottesville High School including LED installations in a portion of the Media Center, replacement of 18 variable frequency drives, completion of phase 2 of the roof replacement, and installation of generators with increased capacity.
- Completed phase 1 of the Charlottesville Middle School renovation.
- Began installation of 262 kW rooftop solar PV system at CATEC, which will be the largest solar system in the City’s solar portfolio.

Behavioral Actions

- The EWMP has developed energy and water education tailored for CCS curriculum and has incorporated lesson plans into the **CCS Science Pacing Guide**. These materials are available to all science teachers with the resources necessary to deliver the activities.
- In May 2025, 700 4th and 5th graders received **Climate Action Activity Kits** created by the Community Climate Collaborative (C3) and the Virginia Discovery Museum in partnership with the EWMP.
- The Office of Sustainability attended the first district-wide STEMfest in March 2025 at CHS. Energy and water conservation messaging was the focus where students learned the principals of water and scientific method by exploring how many drops of water fit on a penny, how to measure how much water a leaking faucet is wasted, and more.

A Dashboard of all the data included in the FY2025 City Annual Performance Report with interactive options and detailed data can be viewed at [EnergyCAP FY2025 City Performance Report Dashboard](#).