

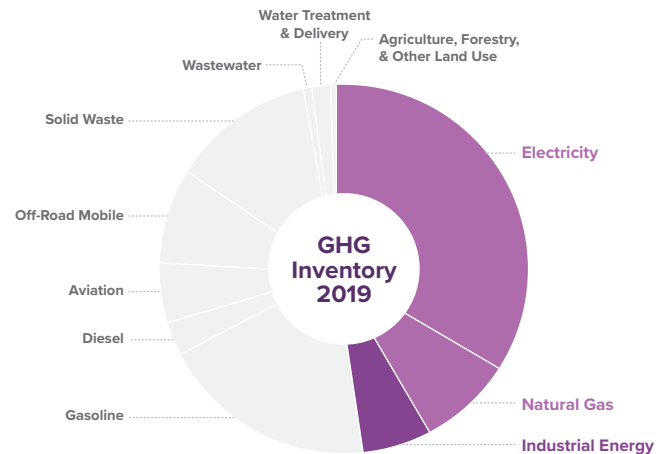


Smart Buildings & Development

Buildings contribute half of County-wide greenhouse gas (GHG) emissions. As Clark County continues to grow, where and how we develop will significantly influence the cost of infrastructure, the need for transportation, the financial burden to residents, and the resilience of neighborhoods and businesses. Together, we can guide development to prioritize safe, connected, and affordable neighborhoods and transition all our homes and businesses to be carbon neutral through efficiency and renewable energy.

47.3%

of County-wide GHG emissions come from electricity and natural gas use in buildings and industry.



Connections to Climate Change

Buildings are the largest source of GHG emissions in Clark County. As the frequency and intensity of extreme weather and temperatures increase due to climate change, demand will also increase for cool and safe spaces to protect people from the elements. For example:

- Under extreme heat conditions, there is an increased energy and utility cost burden on the housing system due to demand for cooling.
- Neighborhoods with older homes and mobile homes are more likely to have lower energy efficiency or no air conditioning.

BY THE NUMBERS



348

buildings that have earned LEED certification in the County since 2009⁴⁵

Leadership in Energy & Environmental Design (LEED) is a common green building standard



6x

increase in efficiency program uptake is needed in Clark County to meet GHG reduction targets⁴⁶



70%

of homes use natural gas as the primary heating fuel, with 90% using natural gas in some way⁴⁷

THE ALL-IN VISION

Driving the transition to smart and carbon neutral buildings that are healthy, efficient, and affordable.

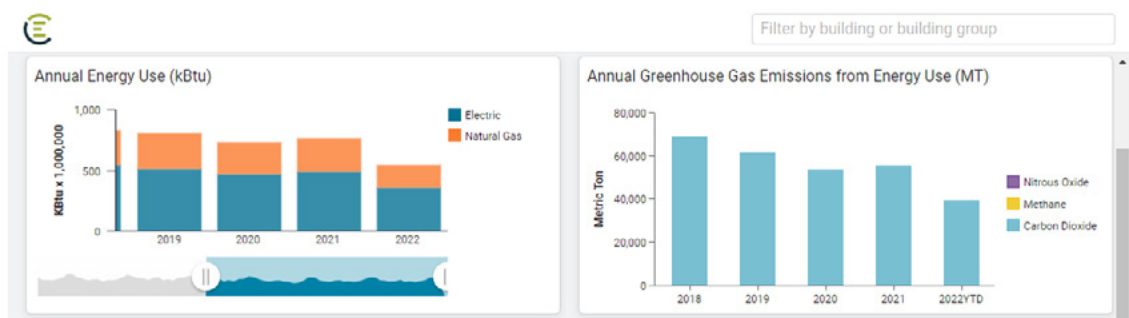
Leading by Example

Property Assessed Clean Energy (PACE) Financing

The **Cities of Las Vegas and Henderson** created Energy Improvement Districts to allow commercial, industrial, and multifamily building owners to pay for energy efficiency and renewable energy through a Property Assessed Clean Energy (PACE) program. PACE allows building owners to make energy upgrades without big up-front costs or loans and pay for the upgrades over a long period of time. **Clark County** is also developing a PACE program. These programs can serve as a model for other jurisdictions looking to promote creative financing mechanisms for energy projects.

Building Energy Management

In 2021, **Clark County** started using a platform called EnergyCAP, a comprehensive energy management system that gives the County insight into its buildings' energy use. Dashboards display energy use by location to help staff track and conserve energy and reduce emissions.





Smart Buildings & Development

The *All-In Community Plan* establishes goals, strategies, and actions for each focus area. These are highlighted in the summary matrix, along with indications of alignment with other regional and state plans.

Goal 1: Buildings in Clark County are efficient and model net zero energy best practices.		Alignment
1.1 Reduce energy use and GHG emissions from existing buildings.		
1.1.A	Establish and provide technical assistance for a commercial and public building energy and water use benchmarking and disclosure ordinance for buildings 100,000 sq ft and larger.	
1.1.B	Establish a residential energy labeling program.	
1.1.C	Launch a County-wide deep energy retrofit program leveraging a stacking funding mechanism, prioritizing inefficient and low-income neighborhoods.	
1.2 Establish uniform regional requirements that reduce emissions in new buildings.		
1.2.A	Advocate for legislation to establish automatic adoption of updated IECC codes and create an enforceable time limit for subsequent local adoption.	
1.2.B	Establish readiness building code requirements to allow for rooftop solar, energy storage, electric HVAC and appliances, and electric vehicle charging at commercial and residential buildings.	
Goal 2: Neighborhoods throughout Clark County are livable, resilient, and provide diverse housing options.		
2.1 Minimize the impact of development on Clark County's community assets and resources.		
2.1.A	Create zoning and incentives to prioritize infill, mixed use, higher-density, and transit-oriented development.	
2.1.B	Pilot alternative development demonstration projects that showcase diverse uses and housing types as well as best practices in efficiency and resilience.	



Aligns with [Nevada State Climate Strategy](#).

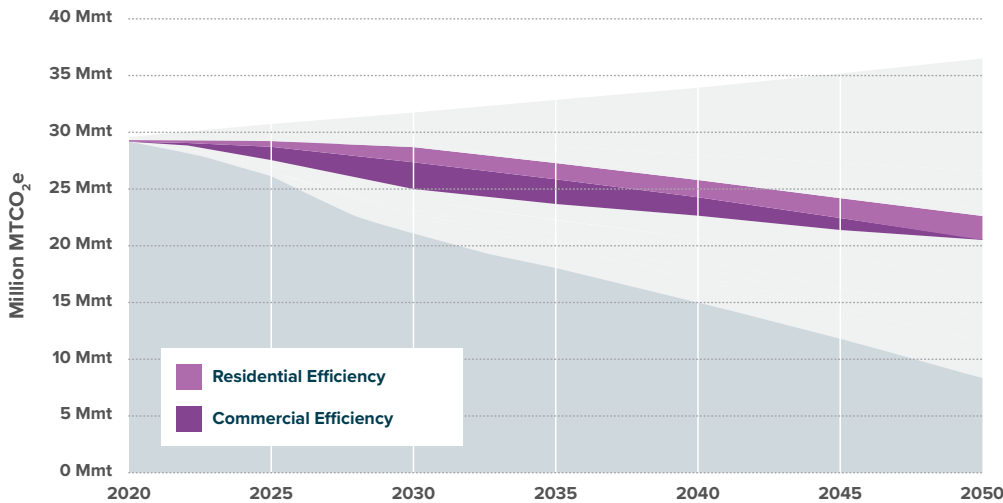
"My kids motivate me to take climate action, so I just purchased solar for my home. I hope one day that they take over my house and benefit from my actions I take today!"

CLARK COUNTY RESIDENT
DIANA OSBORN DESCRIBING
WHY SHE'S "ALL-IN"



Pathway to Action

Achieving a completely renewable electricity grid requires lowering demand to meet the supply. Electricity and natural gas use in building and industry currently contributes almost half (47.3%) of all emissions in the County. Immediate and aggressive (six times what the current programs are delivering) action on efficiency is necessary to succeed in this energy transition. By 2050, all existing 715,000 detached residential structures and 406 million sq ft of commercial space will need to undergo deep efficiency measures. Achieving this target will enable Clark County to reduce emissions by 2.1 million MTCO₂e.⁴⁹



IMPACT OF DEEP ENERGY RETROFITS

The Pathways Analysis illustrates the potential for reducing emissions through high-impact strategies—in this case, improving energy efficiency in residential and commercial buildings. See [Pathways to Reducing Emissions](#) for more information.

TRACKING PROGRESS

Monitoring these fundamental numbers will help demonstrate progress towards the goals.

Average EUI for a single family home in the Western US is 74.1 MMBtu/Household.⁵⁰

METRIC	BASELINE	YEAR	2030 TARGET	2040 TARGET
Average Residential Energy Use Intensity (EUI)	88 MMBtu/household ⁴⁸	2019	77 MMBtu/household	64 MMBtu/household
GHGs Attributable to Buildings in Clark County	14,511,000 MTCO ₂ e	2019	9,043,000 MTCO ₂ e	5,884,000 MTCO ₂ e
Commercial Square Footage with Publicly Disclosed Energy & Water Use	0%	2022	60%*	85%*

* Targets represent implementation of the benchmarking and disclosure of commercial buildings that are 100,000+ sq. ft. through 2030 and 20,000+ sq. ft. by 2040.

Improved Tracking

Some actions in this plan cannot be monitored by metrics currently being tracked. Developing and monitoring additional metrics will improve knowledge of how actions are progressing.



Number of fully electric buildings.



Reported Building Energy Use Intensity (EUI).



Number of households/commercial entities participating in energy efficiency programs.



Total building-energy grant and incentive dollars invested in Clark County.