Smart Buildings & Development

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

Carbon Neutral
noun

Having no net release of GHG emissions. A carbon neutral building is extremely energy-efficient and uses carbon-free energy sources to meet any remaining energy needs.

What does *Smart Buildings & Development* include?

- Residential and commercial buildings that are extremely energy and water efficient
- New construction powered by renewable energy like hydro and solar
- Zoning and land use that promote connected, efficient, and resilient communities
- Development and housing that meet the needs of all community members

How is *Smart Buildings & Development* connected to our long-term resilience and sustainability?

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.

Greenhouse Gas Emissions in Clark County Buildings by Sector

Switching building systems from natural gas to electricity will immediately reduce GHGs, and the carbon footprint of all-electric buildings will shrink even further as more renewable energy is added to the grid.

60%
commercial

Of these commercial building emissions, natural gas use contributes **40%**, while electricity contributes **60%**.

40%
residential

Of these residential building emissions, natural gas use contributes **30%**, while electricity contributes **70%**.

Source: Clark County Regional GHG Emissions Inventory, 2021

By the Numbers

50%

of all GHG emissions in Clark County come from buildings

147%

increase in number of LEED certified buildings in the county in the last ten years

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

58%

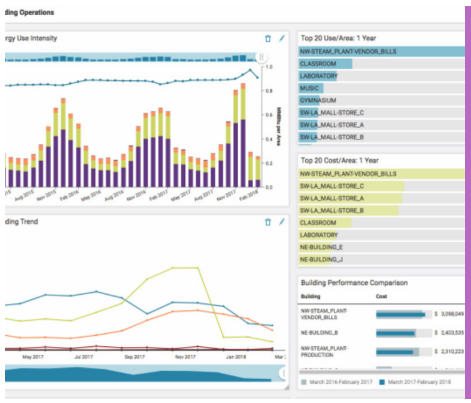
of homes use natural gas as the primary heating fuel, with **90%** using natural gas in some way

Steps we are already taking to promote *Smart Buildings & Development*:

Demonstrating New Technologies: The DesertSol model home designed by a UNLV student team placed second in the 2013 International Solar Decathlon. The sustainable home features solar panels, low-flow water fixtures, and innovative design to promote natural cooling and heating.

Creative Financing for Energy Projects: City of Las Vegas created an Energy Improvement District in 2018 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.

Image: Springs Preserve/Las Vegas Valley Water District



Leading by Example: Building Energy Management

In 2021, Clark County launched 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.