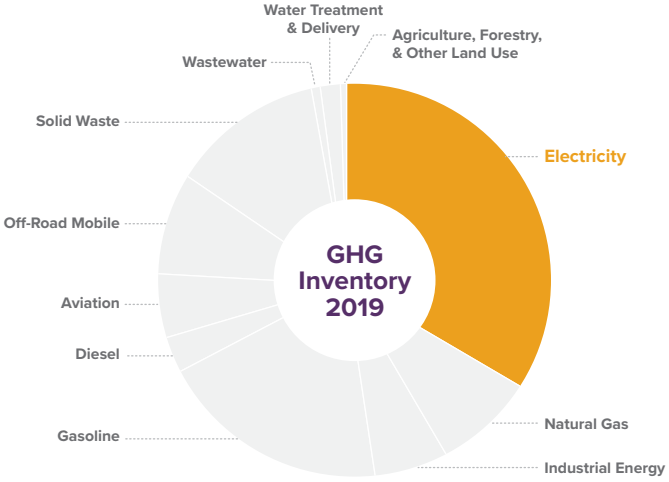
Clean & Reliable Energy

Scaling up renewable energy is Clark County's greatest opportunity to reduce greenhouse gases (GHGs) and other air pollution. There are vast renewable energy resources available in Southern Nevada to provide clean electricity and heat. By embracing innovative and clean energy technology, Clark County can drive local workforce development and strengthen the local economy by keeping energy production in Nevada, all while preparing for the extremes of climate change.

33.2%

of County-wide emissions are from the electricity used in buildings. Those emissions are also a result of the generation sources (i.e., natural gas, solar, wind, geothermal, etc.) that create the energy we use.



Connections to Climate Change

Investing in and producing more renewable energy will reduce GHG emissions. At the same time, we need to strengthen the electric grid against the impacts of climate change which threaten to disrupt energy delivery and increase energy bills. Extreme weather events, particularly heat waves, stress the electricity grid and elevate the risk of brownouts. Flash flooding and high wind also pose risks to power lines and other energy infrastructure. These issues can be addressed through strategies that include creating more connections to regional clean energy supplies, making the grid "smarter," and leveraging energy storage opportunities.

BY THE NUMBERS

71,400
rooftop solar panel systems installed in Southern Nevada[8]

25.8%
of energy on the grid in 2022 was from renewable sources.[9]

51%
of Nevada's utility-scale renewable energy generation is in Clark County[10]

THE *ALL-IN* VISION

Implementing policies, programs, and projects that support the generation and delivery of clean and reliable energy to all.

NV Energy's pilot project—a carport facility at Mojave High School in North Las Vegas—includes 1,012 solar panels that can generate at least 773 megawatt hours per year.

Leading by Example

Community-Based Solar Projects

In 2019, the Nevada Legislature passed a law to expand solar energy to low-income customers without requiring them to install their own solar systems. In response, **NV Energy** recently launched the *Expanded Solar Access Program* to support community-based solar projects. At the Program's full capacity, the Expanded Solar Access Program has the potential to serve more than 8,700 low-income households and more than 15,000 households that would otherwise be unable to install solar panels due to rental agreements or space constraints.

Simplifying Solar for Homes and Businesses

Both the **City of Las Vegas** and **Clark County** received SolSmart designation (Gold level and Bronze level, respectively) for their efforts to decrease barriers facing building owners who want to install solar. Both governments created an online permitting checklist, increasing transparency for community members and solar installers, and audited local zoning codes for restrictions that intentionally or unintentionally prohibit solar photovoltaic (PV) development. The City of Las Vegas also updated its zoning code to allow solar by right in all zones (so solar installations do not require special permits or hearings), cross-trained inspection and permitting staff, and provided a streamlined permitting pathway for small PV systems.

ACTION PLAN

Clean & Reliable Energy

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: Local, renewable energy is maximized and accessible to all within our communities.	Alignment
1.1		**Develop renewable energy sources to meet a significant share of energy demand (electric and thermal) by 2030.**	
	1.1.A	Advocate to increase the State Renewable Portfolio Standard to attain 100% renewable electricity by 2050.	
	1.1.B	Accelerate development of medium, neighborhood-scale solar through model projects, tools, and design standards.	
	1.1.C	Support legislation allowing more utility collaboration for research and development of renewable fuels in Nevada.	
1.2		**Eliminate financial and property barriers to participating in a renewable energy transition.**	
	1.2.A	Expand Community Solar programs to deliver shade and other resilience benefits equitably across communities in Clark County.	
	1.2.B	Pursue finance mechanisms in a "program stacking" model to reduce costs for households and new commercial and residential developments.	
	1.2.C	Advocate for utility regulation that aligns incentives with the accurate value of grid services provided by distributed solar and storage.	
		Goal 2: Energy supply is reliable, efficient, safe, and resilient to climate-related disruptions.	
2.1		**Enhance collaboration and transparency between energy utilities and critical agencies whose operations rely on consistent power.**	
	2.1.A	Support and expand the NV Energy advanced notification system for outages to include agencies managing critical assets.	
	2.1.B	Review and regularly communicate status, impact, and cost of disruptions to critical assets.	
2.2		**Advance microgrid and smart grid solutions for load balancing and resilience benefits.**	
	2.2.A	Engage regulators to expedite research, assessment, and approval of new storage and integration technologies.	
	2.2.B	Create and maintain standards for new development to facilitate more grid-interactive buildings.	

Aligns with Nevada State Climate Strategy.

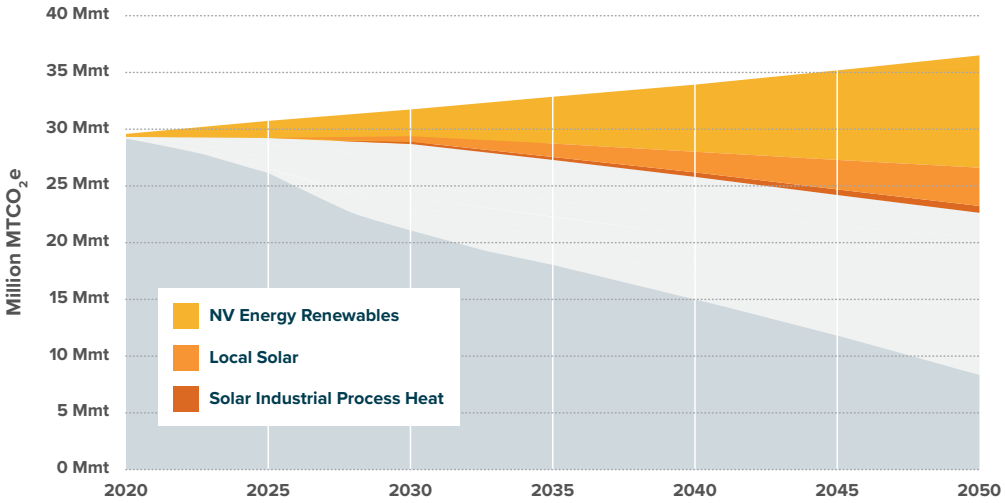
© Lisa Ortega

"We imagine a solar- and wind-powered electrical grid that powers the homes here, which are owned by residents whose families have lived on the historical Westside for generations."

STAFF FROM AL MA'UN NEIGHBORLY NEEDS DESCRIBING THEIR VISION FOR A RESILIENT CLARK COUNTY

Pathway to Action

Clark County's sustainable future is powered by renewable energy. This includes capitalizing on our abundant solar resources by installing extensive solar photovoltaic (PV) systems in residential, commercial, and industrial applications, as well as solar thermal for process heating applications. Fully realizing the benefits of local solar production will require 15,000 homes to go solar each year between now and 2050. Utilizing the full capacity of local solar and transitioning the electricity grid to renewables will cut GHG emissions from building energy use by over 13.4 million $MTCO_2e$ per year. A quarter of that impact could be delivered through rooftop projects within the urban areas of Clark County.[15]



IMPACT OF ROOFTOP SOLAR

The Pathways Analysis illustrates the potential for reducing emissions through high-impact strategies – in this case, transitioning the grid to renewables, expanding local rooftop solar, and utilizing solar industrial process heat. See Pathways to Reducing Emissions for more information.

TRACKING PROGRESS

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

METRIC	BASELINE	YEAR	2030 TARGET	2040 TARGET
Share of Renewable Energy in Grid Electricity Mix	25.8% [11]	2022	50%	75%
Distributed Renewable Energy Capacity	553 MW[12]	2022	2,600 MW	5,500 MW
Industrial Process Heat Supplied by Solar Thermal	Unknown, presumed 0 MMBtu	2022	2,500,000 MMBtu	7,700,000 MMBtu
Distributed Battery Storage Capacity	5.8 MW[13]	2021	750 MW*	1,500 MW*
Average Duration of Outages	120 minutes[14]	2021	78 minutes**	Steady or Improving

* 2030 target aligns with Clark County fulfilling 75% of the Statewide 2030 storage target.

** 2030 target set to match outage duration performance with NV Energy's leadership position in total number of outages relative to the national average.

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 public properties with backup power or battery storage.

Total kW of distributed solar capacity within each jurisdiction.

Number of participants in Community Solar programs.