



CLEAN CITIES COALITION

STAKEHOLDER MEETING

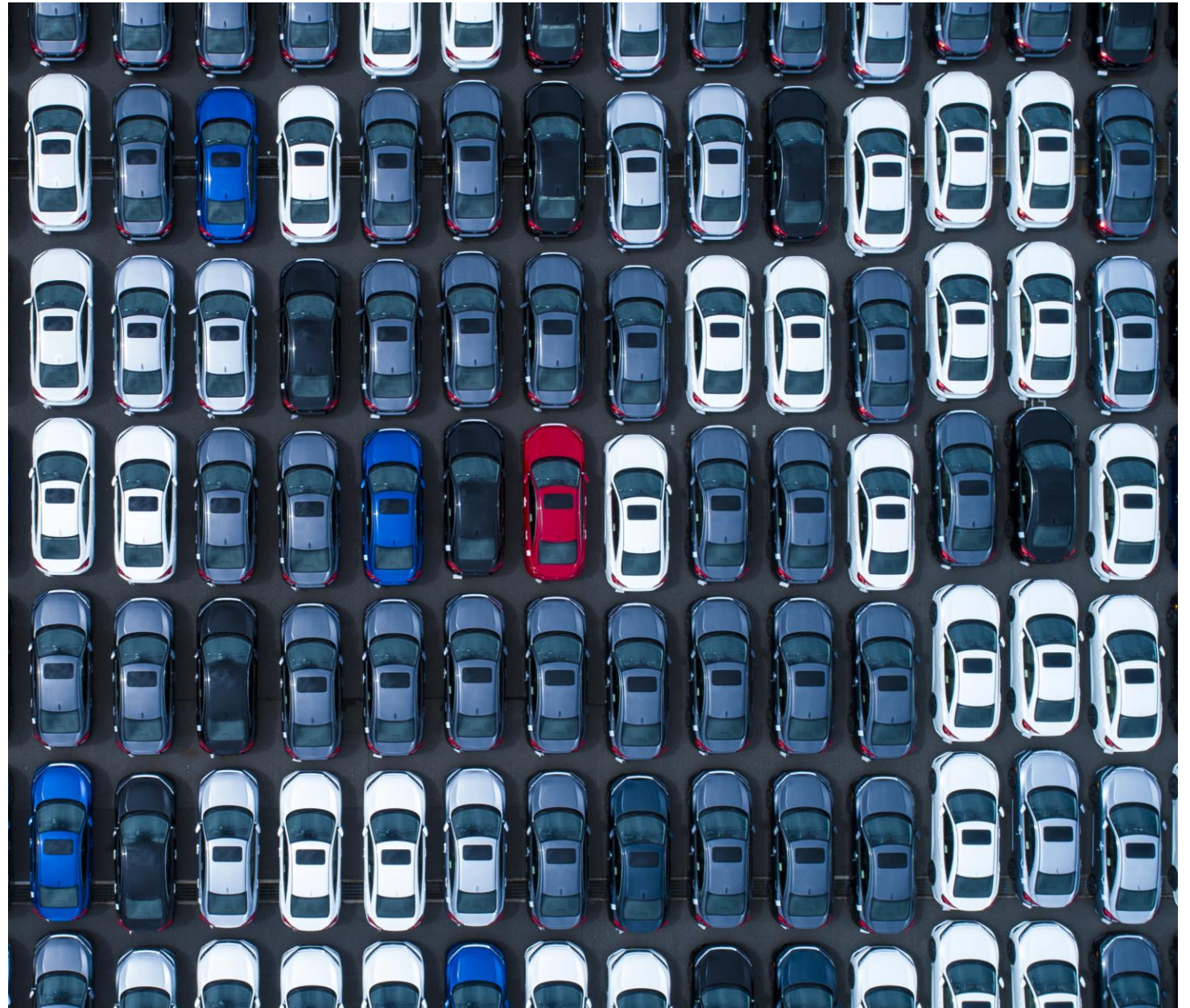
APRIL 20, 2023

OVERVIEW

- Clean Cities overview and updates
- Sam Baker – Sustainability Program Administrator, Clark County
 - All-In Community Plan
- Scott Lent – Regional Development Manager, Mean Green Mowers
 - Electric lawn equipment and incentives
- Refreshments and networking
- Electric Avenue Expo



CLEAN CITIES RECAP AND UPDATES



- National network through the US Department of Energy
- Goal:
 - Reduce petroleum fuels
 - Approved alternative fuels
 - Idling reduction
- Purpose:
 - Reduce dependence on foreign oil
 - Provide cleaner air
 - Lower greenhouse gas emissions
- 75 Coalitions in the United States
 - ...but no representation in Nevada!
- Clark County is currently working towards a designation



WHY CLEAN CITIES?

Funding opportunities

National recognition

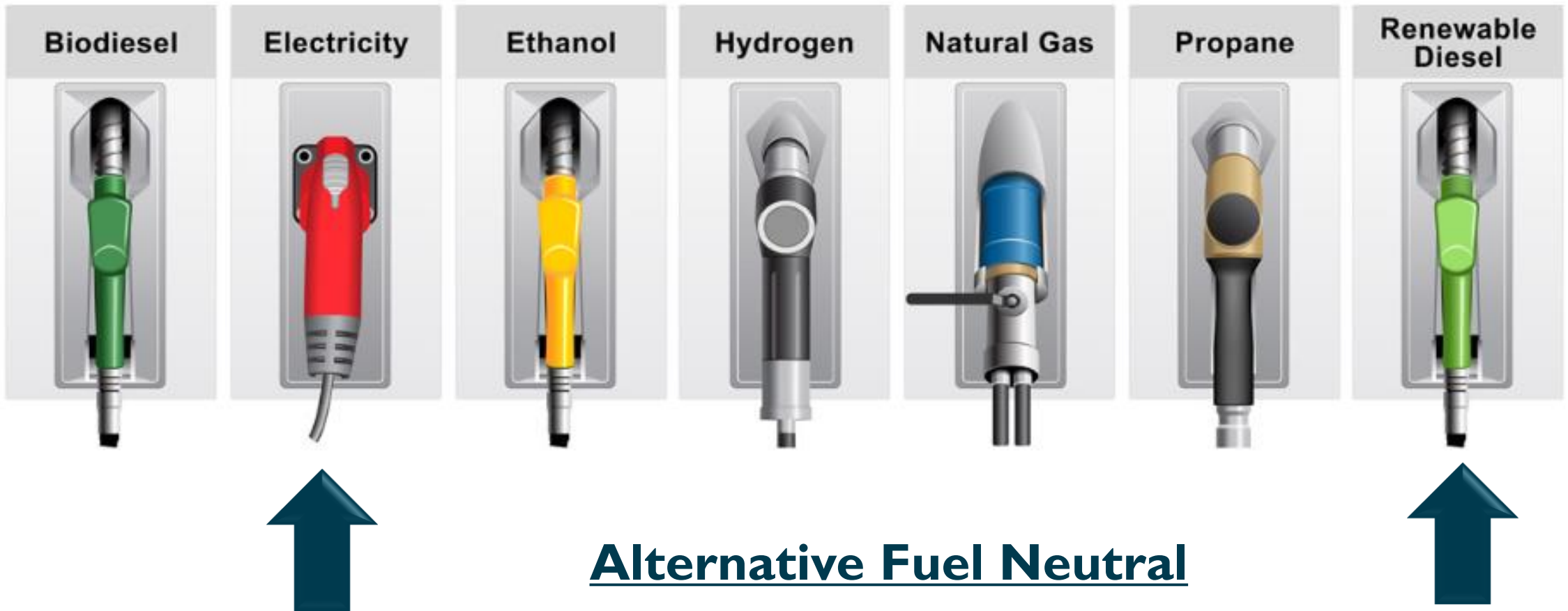
Collaborative space for the community

Capacity building

Cleaner air and fewer greenhouse gas emissions!



APPROVED ALTERNATIVE FUELS





1

Clark County

- Houses Coalition
- Funds Director

2

Director

- Leads Coalition
- Creates programming
- Produces DOE reports

3

Advisory Committee

- Provides guidance
- Creates projects
- Supports DOE reports

4

Working Groups

- Coming soon!
- Determined by Advisory Committee

5

General Stakeholders

- Anyone interested in learning about sustainable transportation!

STRUCTURE

2023 ADVISORY COMMITTEE

- | | | | |
|------------------------------------|---------------------------|------------------------------------|---------------------------|
| ■ City of Henderson | <i>Carla Burrell</i> | ■ NV Clean Energy Fund | <i>Kirsten Stasio</i> |
| ■ City of Las Vegas | <i>Marco Velotta</i> | ■ NV Clinicians for Climate Action | <i>Dr. Joanne Leovy</i> |
| ■ City of North Las Vegas | <i>Leonardo Benavides</i> | ■ NV Dept of Transportation | <i>Kandee Bahr Worley</i> |
| ■ Clark County | <i>James Cordero</i> | ■ NV Conservation League | <i>Kristee Watson</i> |
| ■ Clark County School District | <i>Mark Campbell</i> | ■ NV Energy | <i>Randy Koss</i> |
| ■ Harry Reid International Airport | <i>Brad Tomm</i> | ■ NV Franchised Auto Dealers | <i>Andrew MacKay</i> |
| ■ LV Valley Water District | <i>David Bourn</i> | ■ Regional Transp. Commission | <i>Deborah Reardon</i> |
| | | ■ Southwest Gas | <i>Justin Mahana</i> |

OFFICIAL NAME

Southern Nevada Clean Cities Coalition



- Determine structure
- Form stakeholder group
- Begin meetings and programming

Complete

- Form Advisory Committee
- Continue meetings and programming
- Turn in a report to the DOE

In Progress

- Form working groups
- Collect relevant data
- Turn in a full report to the DOE

Upcoming

DESIGNATION STATUS

HOW TO PARTICIPATE?

Quarterly Stakeholder Meetings

Online Programming

In-Person Events

Join a Working Group

Opportunities to support, present & host





CLARK COUNTY

Community Sustainability and Climate Action Plan

April 20, 2023



All-In Clark County

Address climate change and create a more sustainable future.

Take a smart, bold, and inclusive approach to creating a sustainable community for the well-being and prosperity of all, today and for future generations.



Led by **Department of Environment and Sustainability**

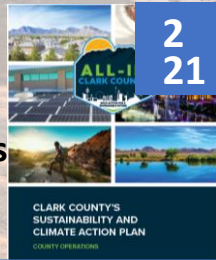


Timeline: Committing to Change

OCTOBER 2019

10
19

Clark County Board of Commissioners sign on to the County Climate Coalition & Paris Agreement



2
21

FEBRUARY 2021
Approval of *All-In Sustainability & Climate Action Plan for County Operations*



6
21

JUNE 2021
Climate Vulnerability Assessment process kick off



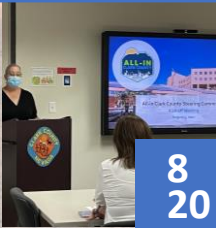
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AUGUST 2021
Clark County's internal *All-In Steering Committee* holds inaugural meeting



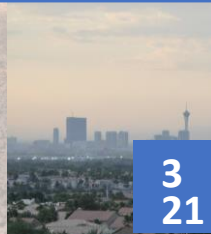
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SEPTEMBER 2022
Climate Vulnerability Assessment released



8
20

AUGUST 2020
Launch of *All-In* initiative - Sustainability and Climate Action Plan for County Operations



3
21

MARCH 2021
Clark County funds update to 2014 Regional Greenhouse Gas Emissions inventory



7
21

JULY 2021
Launch of the *All-In Clark County* Community planning process



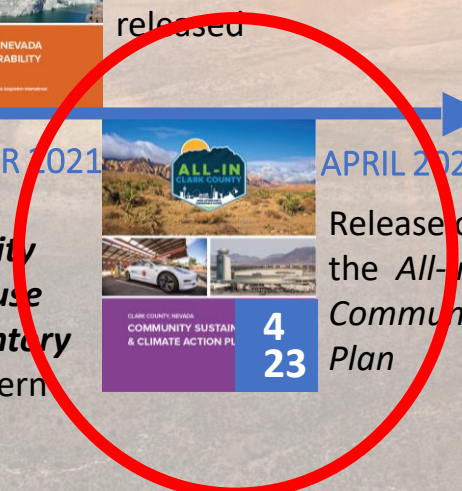
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21

DECEMBER 2021
Regional Community Greenhouse Gas Inventory for Southern Nevada



4
23

APRIL 2023
Release of the *All-In Community Plan*





Guiding Principles



EQUITY

Including and empowering diverse populations in both the development and implementation of *All-In Clark County*.

- More than 150 organizations were directly engaged in the *All-In* Initiative.

- Collected 6,000+ survey responses for the *All-In Community Plan*.



TRANSPARENCY

Openness and honesty around why the County is driving action on climate change and the data that guided the *All-In* process.

- All analyses were made publicly available through meetings and the *All-In* website.

- The County offered multiple opportunities throughout the process for community members to engage in the process, learn more about climate impacts, and share their ideas and concerns.



GREENHOUSE GAS EMISSIONS REDUCTIONS

The actions we take as a community to collectively minimize our contribution to climate change.

- Clark County agreed to update the existing Regional Greenhouse Gas Emissions Inventory conducted through SNRPC through the *All-In* initiative.

- The *All-In Regional Community Greenhouse Gas Emissions Inventory* looked at all emissions sources throughout Southern Nevada and provided jurisdictional breakdowns for each local government.



ECONOMIC, ENVIRONMENTAL, AND SOCIAL RESILIENCE

The ability of Southern Nevada's people, environment, and economy to recover from and thrive in the face of climate change impacts.

- The *All-In Climate Vulnerability Assessment* identified areas within Southern Nevada that are most at risk to the impacts of climate change.

- The *All-In Community Plan* includes specific actions that address those risks and enhance overall community resilience.



Focus Areas



CLEAN & RELIABLE ENERGY

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



CONNECTED & EQUITABLE MOBILITY

Developing a safe, connected, and accessible transportation system that prioritizes low-carbon mobility, public transportation, and active lifestyles.



DIVERSE & CIRCULAR ECONOMY

Creating a robust and diversified economy that reimagines waste and resource use while investing in human capital.



RESILIENT & HEALTHY COMMUNITY

Preparing the community for climate-driven emergencies through strengthened natural and social systems.



SMART BUILDINGS & DEVELOPMENT

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

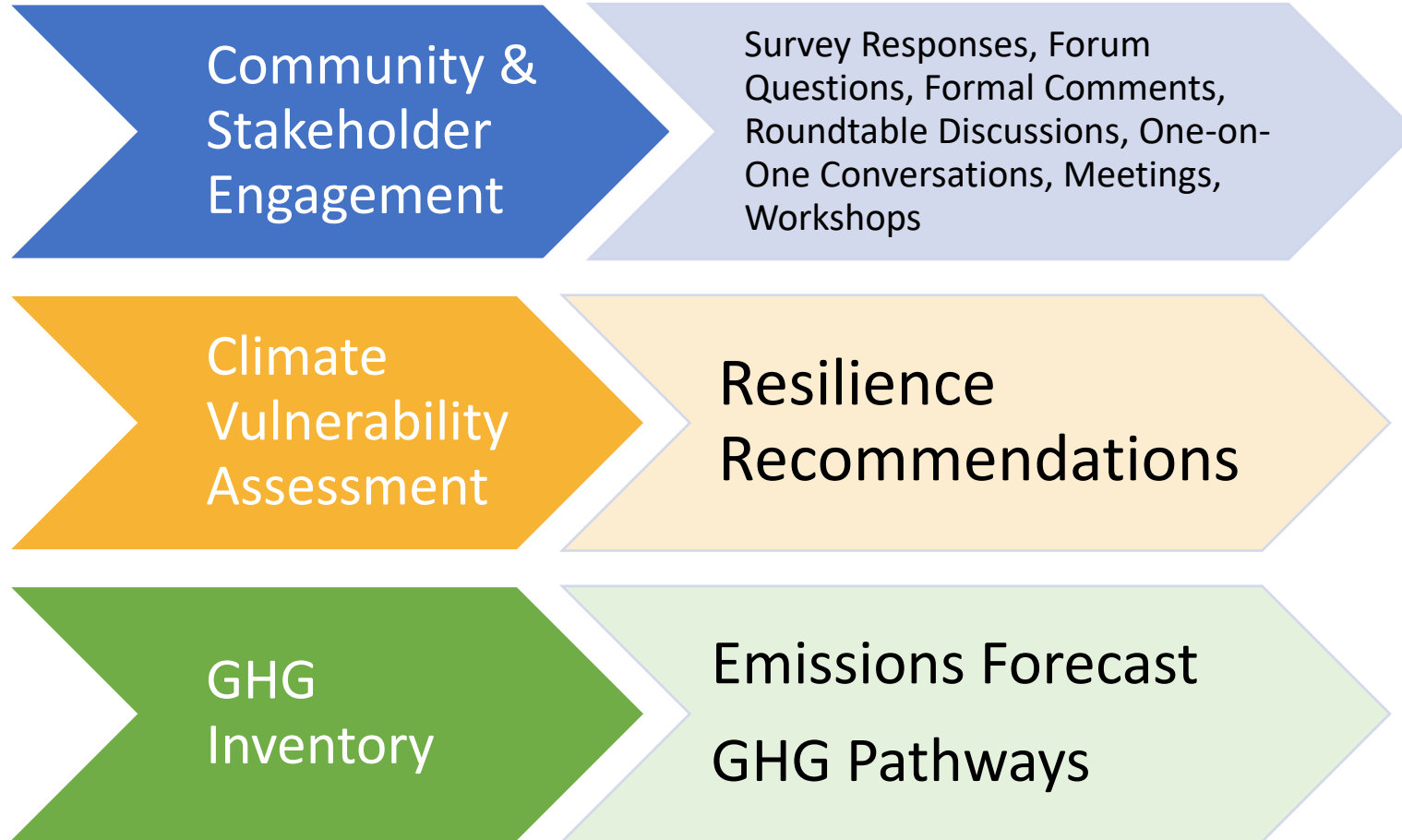


SUSTAINABLE WATER SYSTEMS

Conserving and protecting water resources while developing sustainable systems for water delivery, stormwater management, and wastewater treatment.



Informing the Community Plan



Community Sustainability and Climate Action Plan

Goals
Strategies
Actions



Engagement Results



Throughout the planning process, community members contributed leaves to a Sustainability Tree with examples of ways that they're going "All-In" on climate action.

157
ORGANIZATIONS

56
EVENTS & MEETINGS

6,000+
SURVEY RESPONSES

TOTAL REACH*
220,000+ People

* Includes social media followers of Clark County and its key partners that shared posts about All-In.



Already Experiencing the Impacts



EXTREME HEAT

The 2.3 million people living in Clark County are highly vulnerable to extreme heat. In 2022, Clark County experienced 147 days above 90° F.



DROUGHT

With Lake Mead levels at record low levels, drought is continuing to impact the region's water supply, which may result in increasing restrictions for indoor and outdoor water consumption.



FLASH FLOODING

Southern Nevada is no stranger to monsoonal rain and flash floods. During the summer of 2022, Clark County experienced record flash flooding. As the climate changes, rainfall is expected to be less frequent, but heavier, leading to more flash flooding events.



WILDFIRES

Clark County is seeing an increase in smoke events from wildfires in other states. In 2021, there were 18 smoke advisories and in 2022, the County issued a blanket advisory for the entire season.



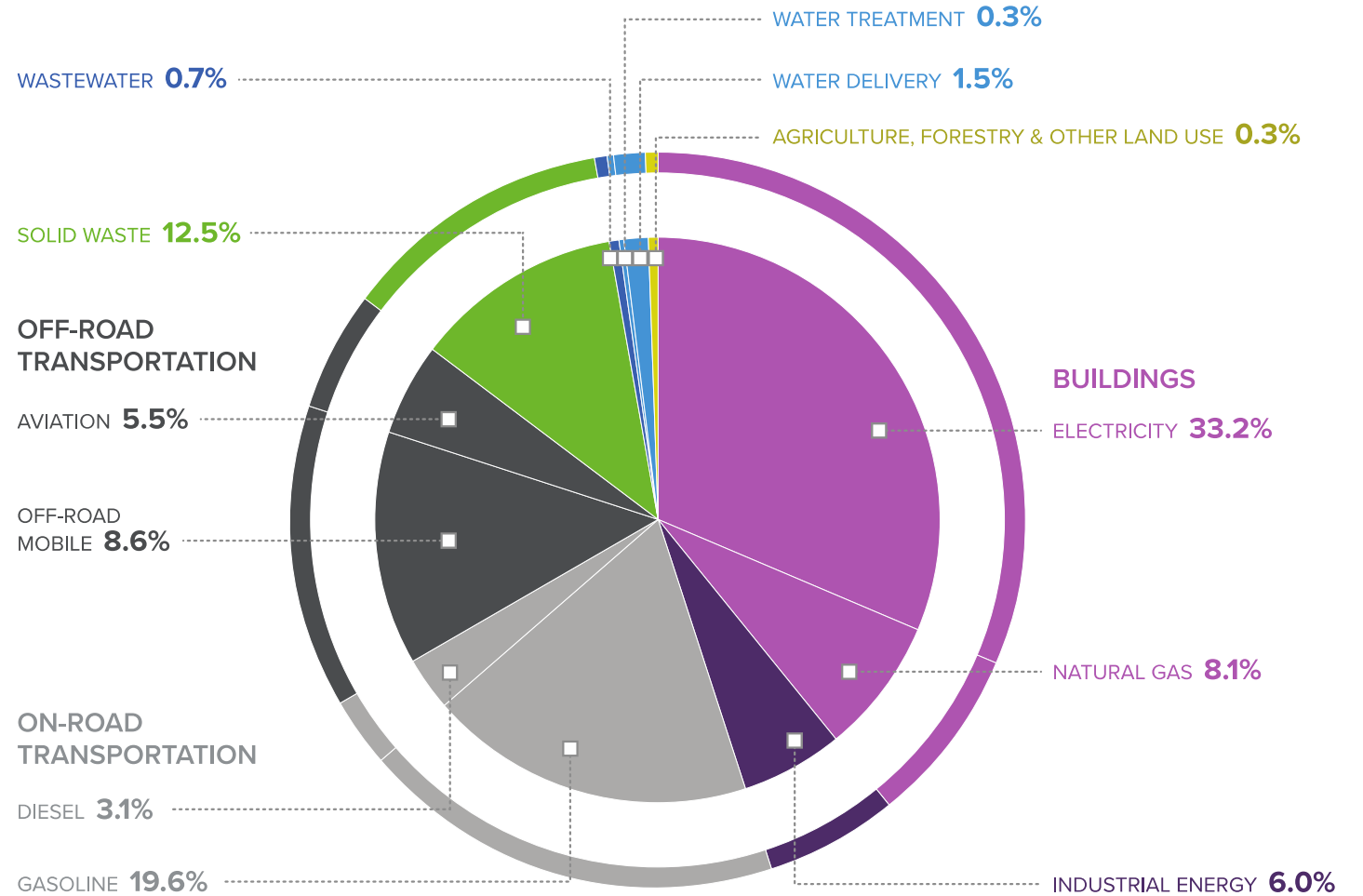
EXTREME WINDS

The science on how climate change affects extreme wind is still evolving. At the same time, the County has experienced an increase in extreme wind events in recent years. These events have led to poor air quality, damages to buildings and infrastructure, and disruptions in power, air travel, and economic activity.





Greenhouse Gas Emissions





Example Actions

- Establish a residential energy labeling program.
- Align all jurisdictions' water policies and programs with existing studies and water resource plans.

- Identify resources and implement tactics that remove organic waste from the landfill.
- Partner with trade unions to provide worker incentives and host trainings on skills needed for an innovation economy.

- Support legislation allowing more utility collaboration for research and development of renewable fuels in NV.
- Enhance, protect, and maintain drought-tolerant plantings in heat vulnerable neighborhoods.

- Establish a network of resilience hubs.
- Protect workers from heat, toxins, and other dangerous work conditions through advocating for and educating about safety standards.



ACTION PLAN

Connected & Equitable Mobility

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: Southern Nevada offers safe and equitable access to connected, multimodal transportation options.		Alignment
1.1	Reduce transportation demand by increasing capacity and reach of transit system.	
1.1.A	Fund and construct high-capacity transit (BRT/LRT) and fixed route RTC transit.	
1.1.B	Ensure transit access for seniors, veterans, youth, low-income populations, and people with disabilities.	
1.2	Promote safe and accessible alternatives to single occupancy vehicle trips.	
1.2.A	Create public-private partnerships to develop “hubs” where docked micromobility options are strategically placed near highly trafficked locations.	
1.2.B	Identify areas to install high level-of-comfort bike infrastructure in high traffic corridors.	
1.2.C	Ensure new and replacement infrastructure provides for pedestrian safety, health, accessibility, and connectivity.	



Aligns with RTC's [On Board Mobility Plan](#) and/or [Access 2050: Regional Transportation Plan](#).



Goal 2: The transportation system minimizes energy use and eliminates fossil fuels.

2.1 Transition passenger and light-duty vehicles to zero emission vehicles.



- 2.1.A** Establish incentives for electric vehicle upgrades for low-income drivers and people interested in used electric vehicles.
- 2.1.B** Establish incentives to encourage installation of electric vehicle charging infrastructure at residential and commercial locations, including a pilot program for multi-family residential properties and underserved communities.
- 2.1.C** Incentivize tourism-supporting fleets to drive and promote zero emission vehicles.
- 2.1.D** Accelerate the electrification of ground support equipment at Harry Reid International Airport.
- 2.1.E** Transition public light-duty fleet to alternative fuel vehicles.

2.2 Advocate for equitable access to fossil-fuel-free transportation resources.

- 2.2.A** Prioritize fossil-free transportation resources in underserved areas.
- 2.2.B** Establish a program to convert all school buses to electric.
- 2.2.C** Prioritize charging infrastructure for medium and heavy-duty trucking at intermodal facilities in high exposure communities.
- 2.2.D** Re-establish a Clean Cities Coalition for Southern Nevada.



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



Implement practical, proven actions that will yield the greatest impact for the region over the next 3-5 years.

2023-2026 Implementation Priorities

- Immediate priorities include:
 - All-In Regional Collaborative
 - County-Wide Climate Education Program
 - Energy Program Stacking (includes water saving retrofits)
 - Building Disclosure Ordinance



**ALL-IN REGIONAL
COLLABORATION**



**COUNTY-WIDE CLIMATE
EDUCATION PROGRAM**



**ENERGY
"PROGRAM STACKING"**



All-In April Activities

- Tabling at Events
 - Trivia Tonight!
- Scavenger Hunt
- Partner Events
- Virtual Forums
- Daily Word Puzzles

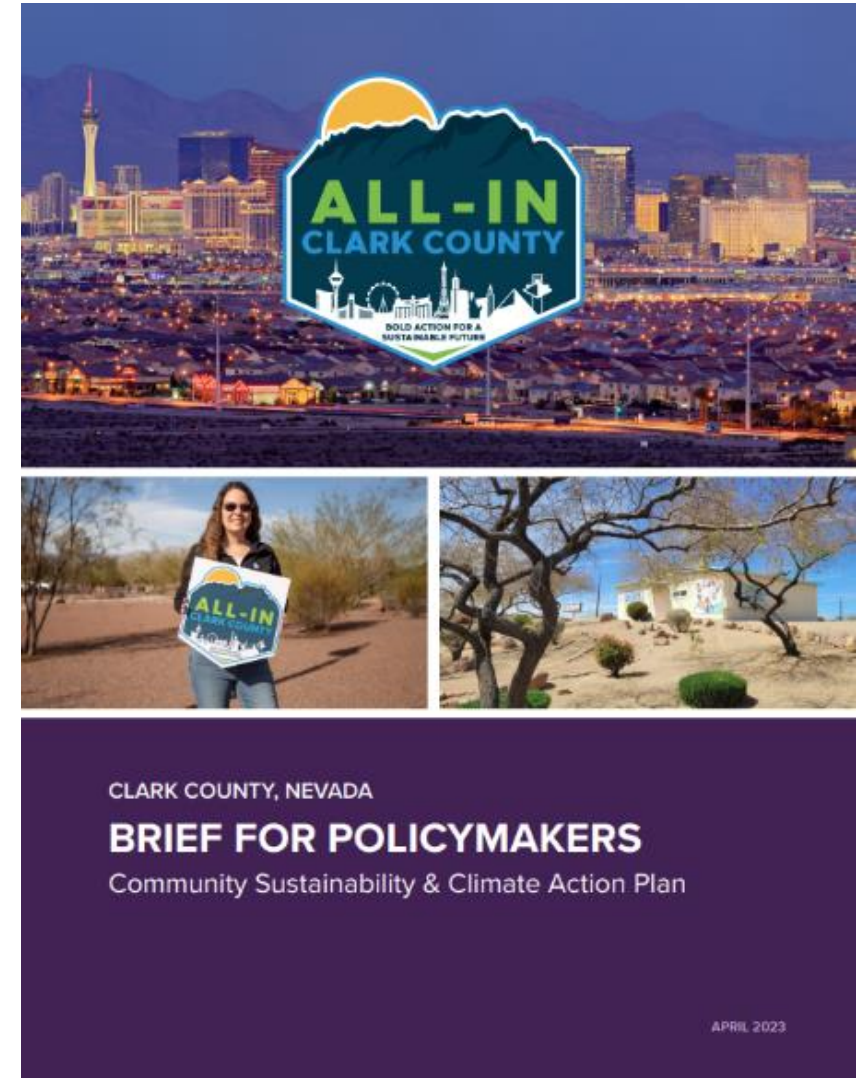
allinclarkcounty.com/all-in-april





Where to Find Plan

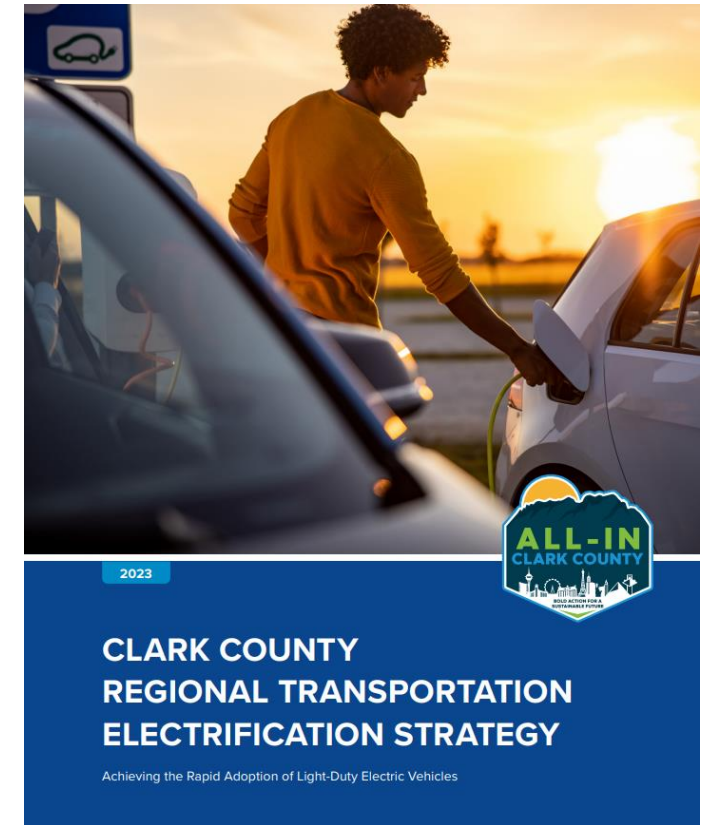
- AllinClarkCounty.com/home
- AllinClarkCounty.com/resource-center
- Email AllinClarkCounty@clarkcountynv.gov to request
- Also: Brief for Policy Makers





Clark County Regional Transportation Electrification Strategy

- Accepted by BCC April 4th
- Developed out of year long Transportation Electrification Working Group
- Provides recommended steps to accelerate adoption of EVs
 - Lead by example to electrify fleets
 - Demonstrate fleet electrification with plans and goals
 - Identify public properties that could host charging; work with utility
 - Adopt EV infrastructure ordinance for new construction
 - Support workforce development
 - Prioritize equity
 - Help residents and businesses with discounts and incentives
 - Streamline planning review process





Congratulations Harry Reid International Airport!

- Achieved Level 1 certification from the Airport Carbon Accreditation Program
 - ACA is only internationally recognized carbon management certification programs for airports
- Calculated and submitted carbon footprint
 - Sets the baseline to measure future success
- Other sustainability efforts include:
 - EV charging infrastructure for ground servicing equipment
 - EV charging for customers in valet
 - Purchasing electric buses
 - Xeriscaping
 - Retrofitting lighting
 - HVAC systems for efficiency





COMMERCIAL GRADE.
ALL DAY POWER

WELCOME

MEAN GREEN ELECTRIC MOWERS

Presentation to

**CLARK COUNTY DEPARTMENT OF
ENVIRONMENT AND SUSTAINABILITY**

April 20, 2023

- California Air Resources Board (CARB) Lawn and Garden Equipment Emissions Study
- Journal of Toxicology and Environmental Science Case Study
- Environmental Protection Agency (EPA) Statistics & Facts
- Incentives



CALIFORNIA

AIR RESOURCES BOARD



1 hour lawn mower use

driving 300 miles
from LA to Vegas

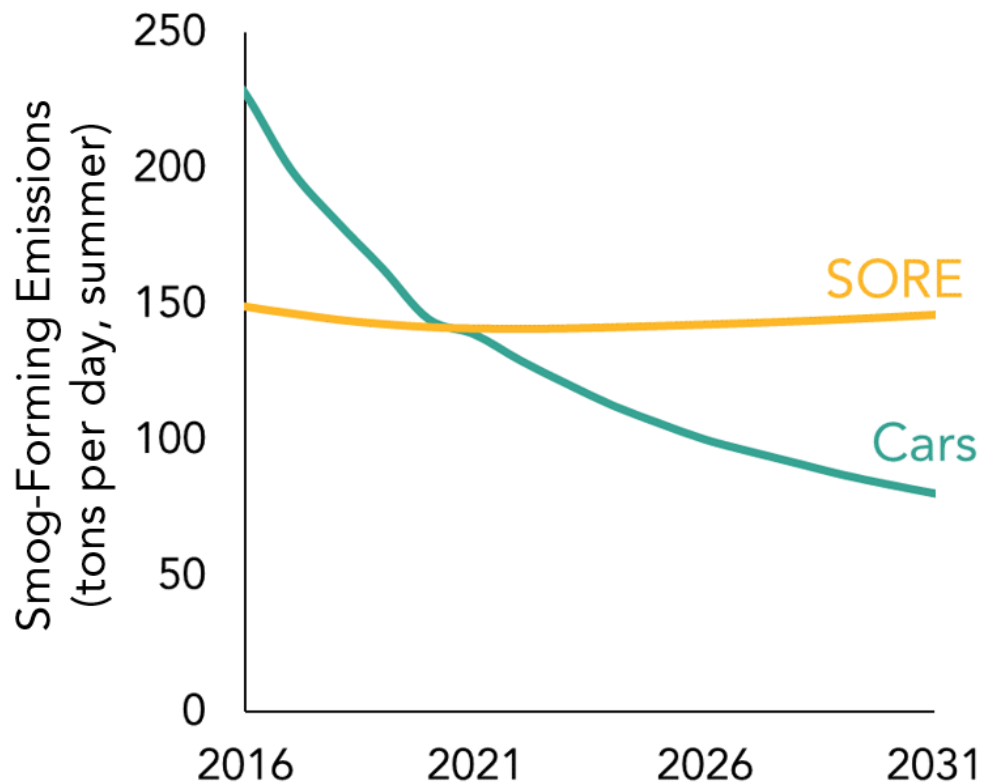


1 hour leaf blower use

driving 1100 miles
from LA to Denver

Emissions are significant

Today, operating a commercial lawn mower for one hour emits as much smog-forming pollution as driving a new light-duty passenger car about 300 miles – about the distance from Los Angeles to Las Vegas, more than 4 hours of drive time. For a commercial leaf blower, one hour of operation emits smog forming pollution comparable to driving a new light-duty passenger car about 1100 miles – about the distance from Los Angeles to Denver, over 15 hours of driving.



CARB actions to reduce emissions

Additional emission reductions are needed from SORE to reduce the disproportionate pollution burden on disadvantaged communities. To that end, California Executive Order N-79-20 sets a goal to transition off-road vehicles and equipment operations to 100 percent zero-emission by 2035 where feasible. Emission reductions are also needed to achieve attainment of ambient air quality standards. In 2021, CARB will consider new emission standards for SORE and expanded incentive programs to help California achieve these goals.

JTES

JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL SCIENCE

Table 4: Measured Operational Sound Levels of Equipment Indoors.

Make/Model	Type	Measured L ₉₀ dBA
Redmax EBZ8500	GLB	51
Stihl BR 700x	GLB	52
Echo PB760	GLB	43
Greenworks GBB 700	BLB	38
Greenworks GBB 600	BLB	37
Chervon EGO 600	BLB	36
Stihl BGA 100	BLB	33
Range of difference in sound pressure levels (dBA): GLB vs BLB		5 to 19
Relative difference in perceived loudness: GLB vs BLB		Noticeably louder to 4 times louder
BLB: Battery-powered leaf blower; GLB: Gas-powered leaf blower		

Lawn and Garden Equipment Sound: A Comparison of Gas and Battery Electric Equipment

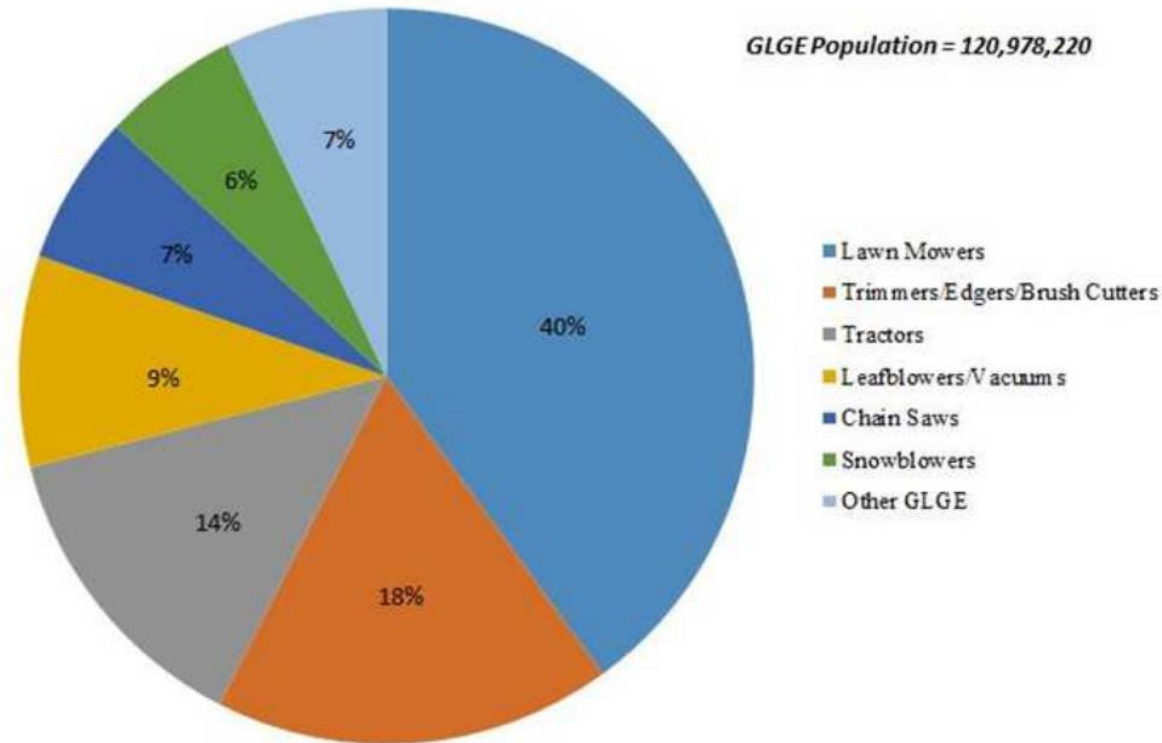
Gas Leaf Blowers (GLBs) affect many people with harmful levels of noise, known to cause serious health problems. The proliferation of GLBs along with other noisy pieces of gas-powered equipment are creating a public health problem in communities, exposing large numbers of people to harmful noise, including children and others who are especially vulnerable. Policy makers should raise public awareness of GLB and other gas-powered landscape equipment as local sources of harmful noise, as well as toxic emissions. Industry-manufacturers and service providers-should adopt equipment and practices that place the highest priority on the health of workers and the public.



According to the U.S. Environmental Protection Agency (EPA), a new gas-powered lawn mower produces volatile organic compounds and nitrogen oxides emissions air pollution in one hour of operation as 11 new cars each being driven for one hour.

Gas-Powered Equipment, US, 2011

GLGE Population = 120,978,220



Well over 5 million gas powered mowers are still sold in the U.S. every year. Americans burn 800 million gallons of gas each year trimming their grassy yards.

EPA estimates that over 17 million gallons of gas are spilled each year refueling lawn and garden equipment – more oil than was spilled by the Exxon Valdez. This gas can migrate through the ground and impact your drinking water.

One gas mower spews 88 lbs. of the greenhouse gas CO₂, and 34 lbs. of other pollutants into the air every year.



Inflation Reduction Act (IRA)

- EPA is administering \$41.5 Billion to support 24 new and existing programs
- Six programs account of 98% of total EPA funding:
 - Greenhouse Gas Reduction Fund (\$27B)
 - Climate Pollution Reduction Grants (\$5B)
 - Environmental and Climate Justice Block Grants (\$3B)
 - Reduce Air Pollution at Ports (\$3B)
 - Methane Emissions Reduction Program (\$1.55B)
 - Clean Heavy-Duty Vehicles (\$1B)
- Additional programs total \$906 Million, including community air monitoring, diesel emissions reductions, and school air quality programs.

INDUSTRY INCENTIVES



National Grants:
Diesel Emissions
Reduction Act
(DERA) | US EPA



Inflation Reduction Act

The maximum credit is \$7,500 for qualified vehicles with gross vehicle weight ratings (GVWRs) of under 14,000 pounds.

Credit is 30% per mower, with a max of \$7,500 per lawn mower. The credit is available for sales made beginning Jan. 1, 2023, and the credit sunsets in 2032. These mowers must be less than 14,000 lbs. and have a battery capacity of not less than 7-kilowatt hours.



**Please visit our Mean Green Mowers Booth outside for
more information.**

www.meangreenproducts.com

Sourcewell 

Awarded Contract

Contract #031121-GNR

★ USA
ENGINEERED AND BUILT

Assembled in the USA
using domestic and
foreign parts.

Scott Lent
Scott.Lent@DRpower.com
818-825-8899





UPCOMING

- Medium and Heavy Duty EV Webinar
 - Wednesday, May 10
 - 12-1:30pm
 - Matt Meyer, DANNAR
 - Marcie Willard, Lightning eMotors
- All-In Community Celebration
 - Friday, May 12
 - 11am-3pm
 - 500 S Grand Central Pkwy



THANK YOU!

Nicole Wargo, Clark County Sustainability Fellow & Clean Cities Acting Director

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