



**Board of County Commissioners  
Electric Vehicle (EV) Infrastructure Ordinance  
Update  
11/16/21**

# Update Objectives

1. Provide an overview of work-to-date on electric vehicle infrastructure & potential ordinance
2. Present next steps



*Credit: NJ Spotlight News*

# BACKGROUND

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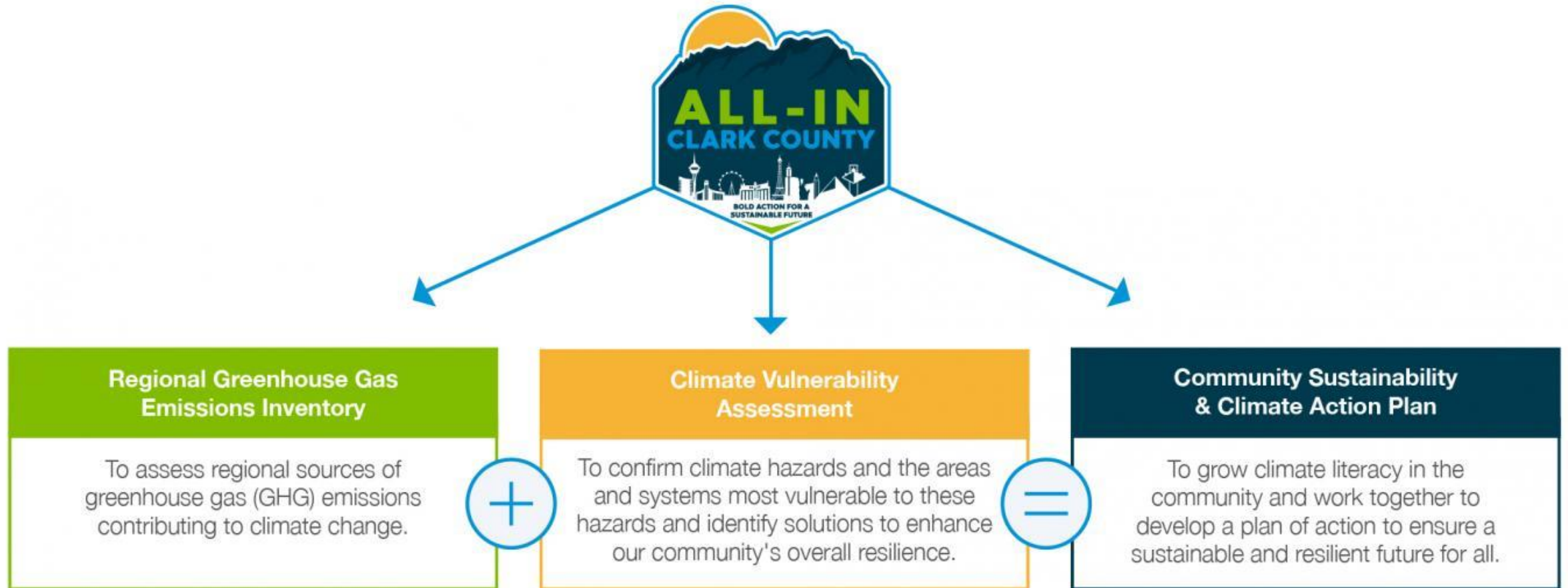


## *All-In Clark County*

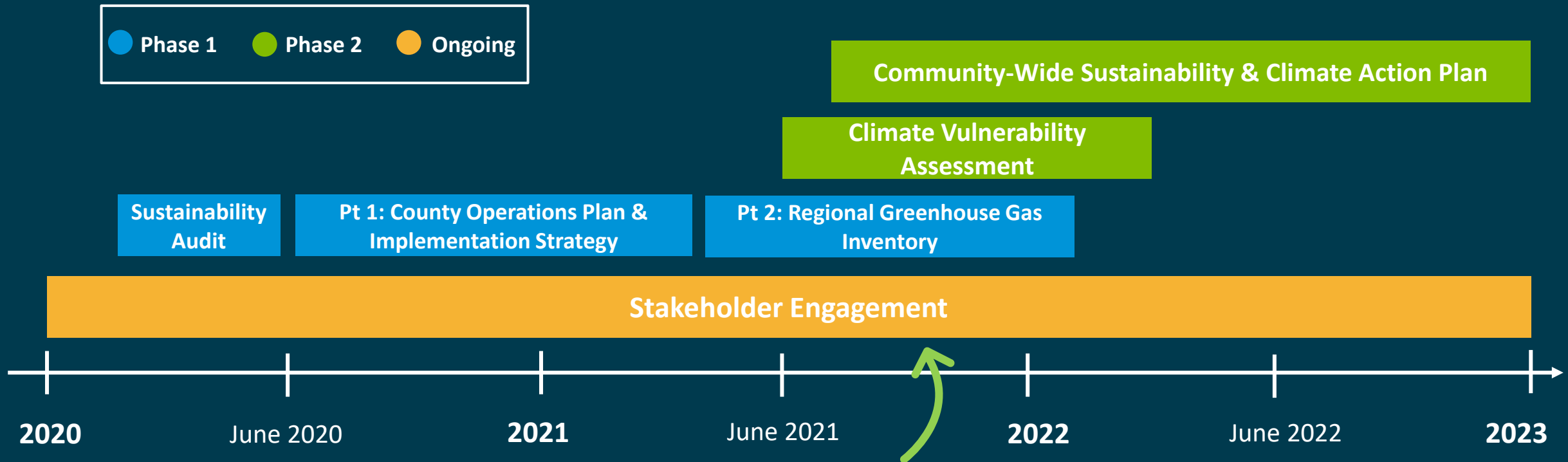
- Clark County's action to address climate change and create a more sustainable future for all
- Reduce Clark County's contribution to climate change
- Prepare residents and businesses for climate change impacts



# Planning Process



# ALL-IN PLANNING PROCESS



# Six Key Areas



**Clean & Reliable  
Energy**



**Connected &  
Equitable Mobility**



**Diverse &  
Circular Economy**



**Sustainable  
Water Systems**



**Resilient & Healthy  
Community**



**Smart Buildings  
& Development**

## *On Road Emissions*

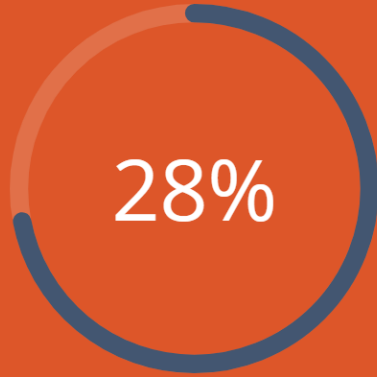
- 22% of all GHGs
- 7% of particulate matter 2.5
- 39% of nitrogen oxides
- 21% of volatile organic chemicals



Source: Las Vegas Sun



# Nevada's Greenhouse Gas Emission Reduction Goals



28% reduction by 2025\*



45% reduction by 2030\*



Net-zero by 2050\*

*\*Compared to 2005. 2005 is used globally as the benchmark for greenhouse gas emission reduction targets because it is the year the original Kyoto Protocol went into effect.*

# NEXT STEPS

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## Next Steps

- Finish the Regional Greenhouse Gas (GHG) Inventory
- Finish the Climate Vulnerability Assessment
- Engage in broad, diverse and equitable public involvement to draft All-In Community Sustainability and Climate Action Plan
- Explore opportunities to work with agencies and stakeholders to reduce GHGs that result in a regional approach respectful of jurisdictional priorities and preferences



# Moving All-In Forward

- How do we position All of Clark County to **seize funding opportunities**
- Projects with **Regional Impact** will be attractive for scale.
- What are some models that have been successful in other places?
- Can we build on existing organizations and initiatives to pursue all the actions we want?





# Biden 2022 Budget

- \$10 billion for clean energy innovation
- \$6.5 billion for rural clean energy storage, transmission projects
- \$4 billion for advancing climate research
- \$3.6 billion for water infrastructure
- \$1.7 billion for retrofitting homes and federal buildings
- \$1.4 billion for environmental justice initiatives
- \$815 million to incorporate climate change risk in disaster planning
- \$1.2 billion above 2021 levels to

**CLARK COUNTY  
EV  
INFRASTRUCTURE  
ORDINANCE**

# Why



## Clark County Goals:

- Improve air quality
- Improve public health
- Reduce GHG emissions



## Needed Actions:

- Reduce car dependency
- Increase mobility options
- Electrify transportation

## Why Now

- EVs are increasing in market share
- Every major manufacturer is shifting their production to EVs
- Clean Cars Nevada
- NVE plans to accelerate transportation electrification





# Why Now

- Remove barriers to electrification
- Proactively position Clark County for the future
- Avoid building retrofit costs later
  - \$ Electrical system redo
  - \$ Demo and rebuild
  - \$ Soft costs-permits, inspections, approvals



## Where?

- 80% of EV drivers charge their cars at home
  - Single family
  - Multi-family
    - Expected increase in multi-family building
    - Equity & Environmental Justice
    - Allows these residents to go All-In on Sustainability and Climate Action
- Non-residential/commercial



# Definitions

## 1. “EV-Capable”

Electrical panel capacity + branch circuit + raceway

Atlanta, GA: 20% is EV-Capable (Ordinance)



## 2. “EV-Ready”

EV-Capable + 240-volt outlet

Denver, Boulder: (1) EV-Ready Space per dwelling for SFU



## 3. “EV-Installed”

Install a minimum number of Level 2 charging stations

Denver: 5% EV-Installed for MFU & Commercial



## EV Infrastructure Ordinance

- Scope – to what does the ordinance apply?
  - SFR
  - Multi-family – with X or more units
  - Commercial – with X or more parking spaces
- Requirements
  - SFR – EV-Ready space per dwelling unit
  - Multi-family - Mix of EV-Installed, EV-Ready and EV-Capable spots at a certain % of dwelling units/parking spots
  - Commercial – Mix of EV-Installed, EV-Ready and EV-Capable spots at a certain % of parking spots





# Staff Workshop

## What We've Learned/Heard So Far:

- There is no lead authority for transportation electrification
- Energy load and delivery planning for transportation electrification is lagging
- Costs at the parcel level can be easily calculated, but total energy infrastructure costs upstream are not well understood nor easily calculated
- There are current constraints (PUC regulations) on how those costs can be covered that heavily impact costs to the developer
- NVE plans that will invest in EV infrastructure and help meet the need
- Desire for consistency among all local governments that might require EV infrastructure
  - NVE – utility planning and energy service delivery
  - Developers – keep requirements as uniform as possible

# NEXT STEPS

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## Next Steps

- Hire a transportation electrification consultant
- Establish an All-In Clark County Transportation Electrification Working Group (TEWG)
- Expected Outcome:
  - All-In Clark County Regional Electrification Strategy December 2022

## Next Steps

Strategy Will Include:

- ✓ Current & projected EV demand
- ✓ Projected charging demand for public charging, multi-family, single family, workplace, and historically-underserved communities
- ✓ Existing EV infrastructure and recommendations on regional EV infrastructure development needs.
- ✓ Recommendations on regional EV charging infrastructure installation planning – focused on light duty vehicles first.
- ✓ Recommendations on a model EV infrastructure ordinance



## Next Steps

### Strategy Will Include:

- ✓ Information on costs of the model ordinance and how those costs are distributed.
- ✓ Recommendations on input to the Nevada Public Utilities Commission
- ✓ Recommendations on strategies for funding
- ✓ Information on economic and workforce development opportunities
- ✓ Address structural questions regarding where EV goals will be housed by core government collaborators and transformed into actionable policies and programs.

**Thank You!**