

Transportation Electrification Working Group

Mar. 10, 2022



AGENDA

1. Introductions
2. Our Role in Transportation Electrification – Public Utilities Commission of Nevada
3. EV Charging Site Walk Best Practices – Clark County and S Curve Strategies
4. EV and Infrastructure Goals
5. Q&A: Public and Interested Parties
6. EV Display



Credit: NJ Spotlight News

PRESENTERS

- Marci Henson, Director of Department of Environment & Sustainability, Clark County
- Karen Olesky, Economist, PUC
- Randy Schimka, S Curve Strategies
- April Bolduc, S Curve Strategies



Credit: NJ Spotlight News

INTRODUCTIONS

MEMBERS

- CHISPA
- City of Boulder City
- City of Henderson
- City of Las Vegas
- City of North Las Vegas
- Clark County
- Clark County School District
- NAIOP
- NV State Apartment Association
- NV Energy
- NV Resort Association
- Ovation Development
- Regional Transportation Commission
- Southern NV Water Authority
- Southern NV Home Builders Association
- NV Division of Environmental Protection
- NV Climate Initiative
- NV Governor's Office of Energy
- NV Department of Transportation
- Southwest Energy Efficiency Project
- The Electrification Coalition
- Western Resources Advocates



INTERESTED PARTIES

Time reserved for Q&A
and discussion



Credit: Jenny Ueberberg

WORKING GROUP ROLE

NV EMISSIONS REDUCTION GOALS

- 28% reduction by 2025
- 45% reduction by 2030
- Net-zero by 2050



Gov. Sisolak delivers remarks on the need for climate action in front of a public electric bus operated by RTC Washoe. Credit: NRDC

CLARK COUNTY EMISSIONS

- 37% from transportation
- 50% of transportation emissions from light-duty vehicles
- Reducing light-duty emissions is key to meeting the state's goal of net zero by 2050

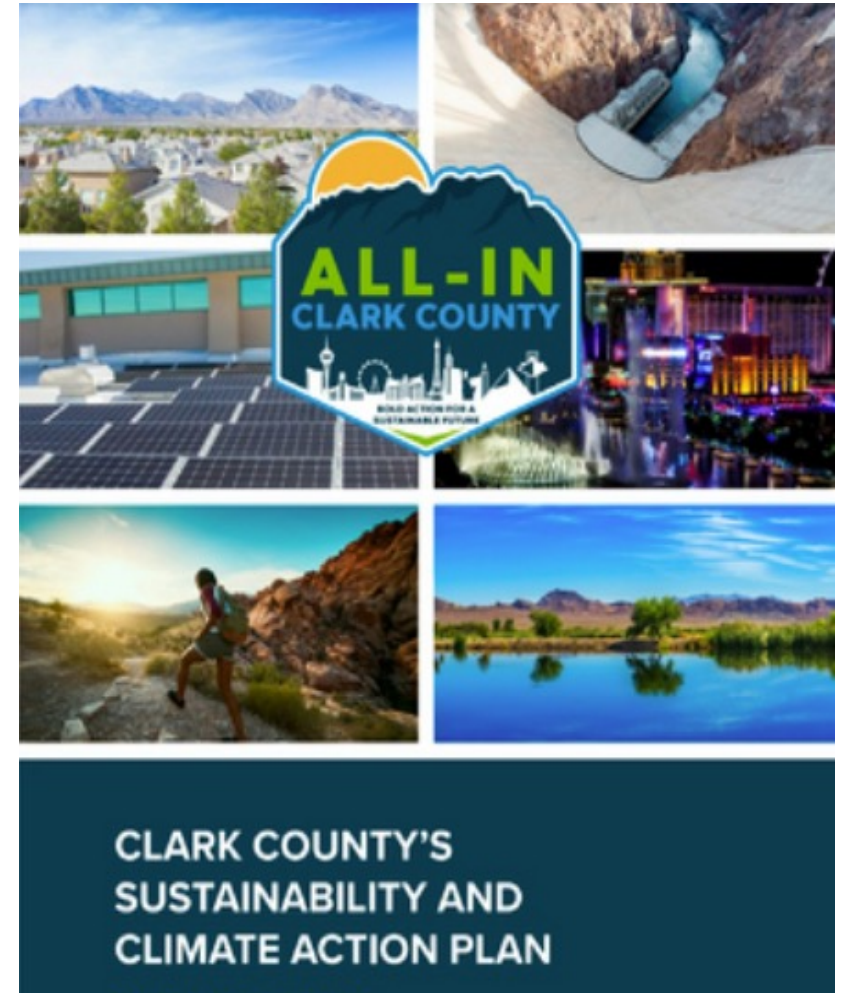


Source: Las Vegas Review-Journal

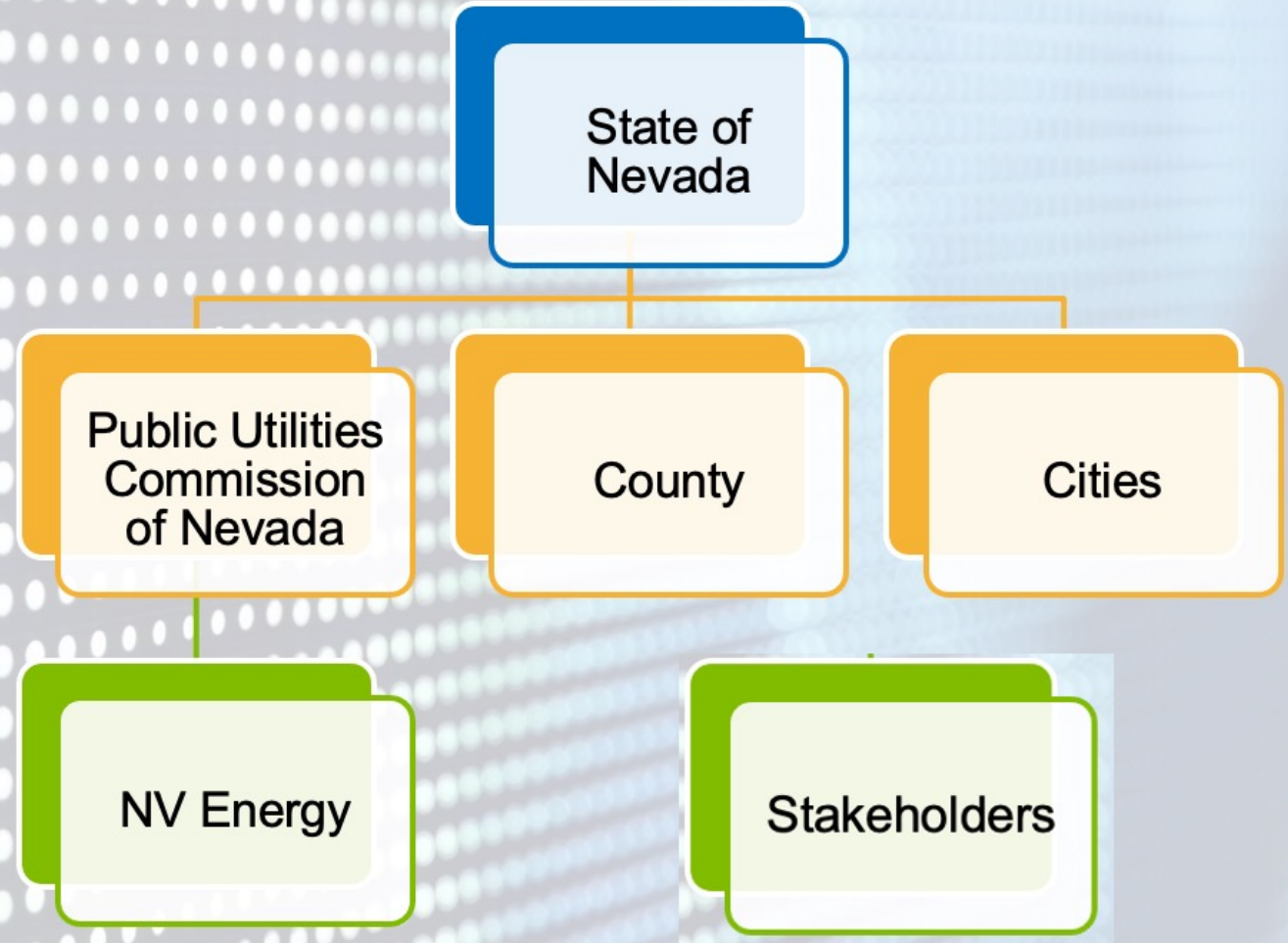
Half of Clark County transportation emissions are from light-duty vehicles.

WORKING GROUP

- Expected Outcome
 - Develop a Regional Transportation Electrification Strategy
 - as part of the All-In Clark County Sustainability & Climate Initiative
 - Phase 1: 2022 – light-duty
 - Phase 2: 2023 – medium- and heavy-duty



ROLES IN TRANSPORTATION ELECTRIFICATION



OUR ROLE IN TRANSPORTATION ELECTRIFICATION

Karen Olesky, Economist
Public Utilities Commission of Nevada

UTILITY REGULATION IN NEVADA



PUBLIC UTILITIES COMMISSION OF NEVADA

Who/What is the PUCN?

State agency that regulates public utilities engaged in:

- Electric services
- Natural gas services
- Telephone services
- Water/wastewater services
- Gas & electric master meter service at mobile home parks
- Some propane services
- Does not regulate cooperatives or municipal-owned utilities
- Quasi-judicial, similar to a court of law



PUBLIC UTILITIES COMMISSION OF NEVADA

Legislative Authority

- PUCN ensures utilities comply with laws enacted by the Nevada Legislature
- NRS Chapter 703 & 704 establish/define PUCN & its regulatory duties
- NAC Chapters 703 & 704 define how PUCN will carry out its regulatory duties
- All PUCN proceedings are open to the public



PUBLIC UTILITIES COMMISSION OF NEVADA

PUCN Basic Regulatory Duties

- NRS 704.001
 - To provide fair & impartial regulation of public utilities
 - To provide for the safe, economic, efficient, prudent and reliable operation and service of public utilities
 - To balance the interests of customers and shareholders of public utilities by providing public utilities with the opportunity to earn a fair return on their investments while providing customers with just and reasonable rates

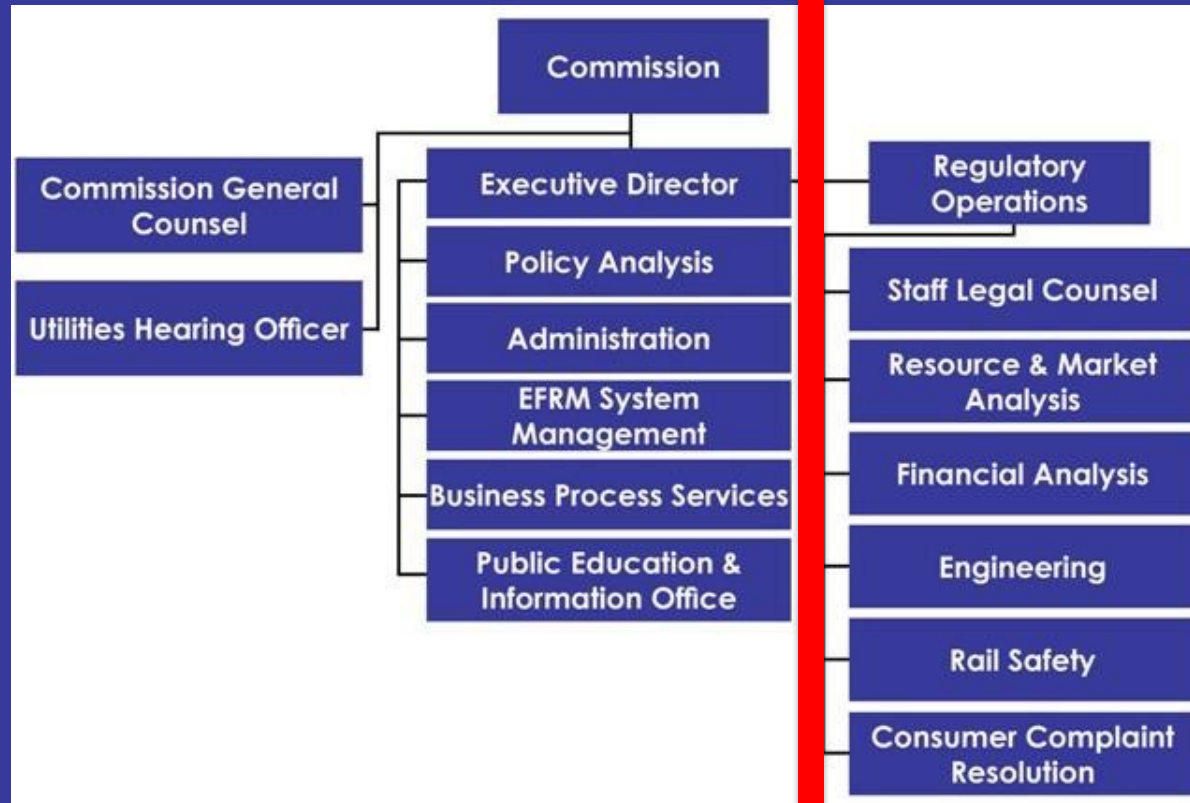


PUBLIC UTILITIES COMMISSION OF NEVADA

Structure of the Agency

PUCN is made up of two distinct groups

**Decision
Makers**



**‘Staff’ is a
Separate
Party in
Cases**



PUBLIC UTILITIES COMMISSION OF NEVADA

Investigations, Rulemakings & Contested Cases

- PUCN conducts 3 types of cases: investigations, rulemakings & contested cases
- Required by statute to make decisions based on evidence formally accepted into record
- Parties present evidence through witness testimony & cross-examination of witnesses
- Participation in proceedings is limited to:
 - Parties that participate as a matter of right (the utility, Staff & Bureau of Consumer Protection (BCP))
 - Those granted intervener status
 - Commenters participate by filing comments



PUBLIC UTILITIES COMMISSION OF NEVADA

Evidence From Interveners in Contested Cases

- Must be granted permission by the PUCN to participate as a party/intervener to a case
- Must prove their substantial interests will be affected by the PUCN's decision
- Consumers and general public are typically not granted intervener status because the BCP's role is to advocate on behalf of consumers
 - BCP, a part of the Attorney General's office, is the consumer advocate
 - BCP represents the collective interests of residential & small business customers



PUBLIC UTILITIES COMMISSION OF NEVADA

Commenters in Contested Cases

- Public may submit request to participate as a commenter
- Commenter may be a person or entity
- Commenters are not parties to the case
- Commenters may file written comments, but may not otherwise participate in the case
- Comments are not evidence & cannot be considered by the PUCN in making a decision in a case



Current/Upcoming EV Dockets

Docket No. 22-02002

- Joint Application of NPC d/b/a NV Energy and SPPC d/b/a NV Energy for approval of annual plans for the Solar Energy Systems Incentive Program and its Energy Storage component, the Lower Income Solar Energy Program, the Wind Energy Systems Demonstration Program, the Waterpower Energy Systems Demonstration Program, and the Electric Vehicle Infrastructure Demonstration (EVID) Program for Program Year 2022-2023
 - Program year July 1, 2023 - June 30, 2023
 - Last Year of the EVID per Senate Bill 448 (2021)
 - Non-Residential and Multi-family Charging Programs
 - Electric School Bus Incentives Program
 - Residential EV Charging Station Incentive Program
 - Lower Income EV Incentives Program



Current/Upcoming EV Dockets Con't...

Docket No. 22-090XX - Pursuant to Section 14 of Senate Bill 448 (2021)

- An electric utility in this State shall file with the Commission, as part of the distributed resources plan, a plan to accelerate transportation electrification in this State. A plan may include:
 - (a) Investments or incentives to facilitate the deployment of charging infrastructure and associated electrical equipment which supports transportation electrification across all customer classes including, without limitation, investments or incentives for residential charging infrastructure at single-family homes and multi-unit dwellings for both shared and assigned parking spaces;
 - (b) Investments or incentives to facilitate the electrification of public transit and publicly owned vehicle fleets;
 - (c) Investments or incentives to increase access to the use of electricity as a transportation fuel in historically underserved communities;
 - (d) Rate designs, programs or management systems that encourage the charging of vehicles in a manner that supports the operation and optimal integration of transportation electrification into the electric grid, including, without limitation, proposed schedules necessary to implement the rate designs or programs; and
 - (e) Customer education and culturally competent and linguistically appropriate outreach programs that increase awareness of investments, incentives, rate designs and programs of the type listed in paragraphs (a) to (d), inclusive, and of the benefits of transportation electrification.



PUBLIC UTILITIES COMMISSION OF NEVADA

General PUCN Process for Contested Cases

- **STAFF and INTERVENERS:**
 - Review the application and testimony
 - Issue data requests to the Utility (ask questions for clarification and/or additional information)
 - Submit written testimony recommending to approve, deny or modify all or specific parts of the application
- **COMMISSION:**
 - Conduct evidentiary hearing
 - Presiding officer issues Draft Order
 - Commission vote on Draft Order at a public agenda (which may include proposed changes from Commissioners)
- **UTILITY:**
 - Can file a petition for reconsideration



PUBLIC UTILITIES COMMISSION OF NEVADA

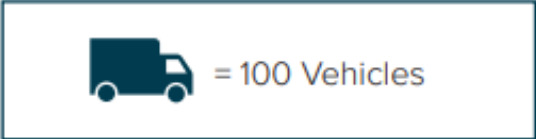
EV CHARGING SITE WALK BEST PRACTICES

Marci Henson
Clark County

Randy Schimka
S Curve Strategies

CLARK COUNTY FLEET ELECTRIFICATION

BREAKDOWN OF COUNTY FLEET



6  Electric Vehicles

130  SmartWays

391  Hybrids

954  BioDiesel

990  Non-Alt Fuel

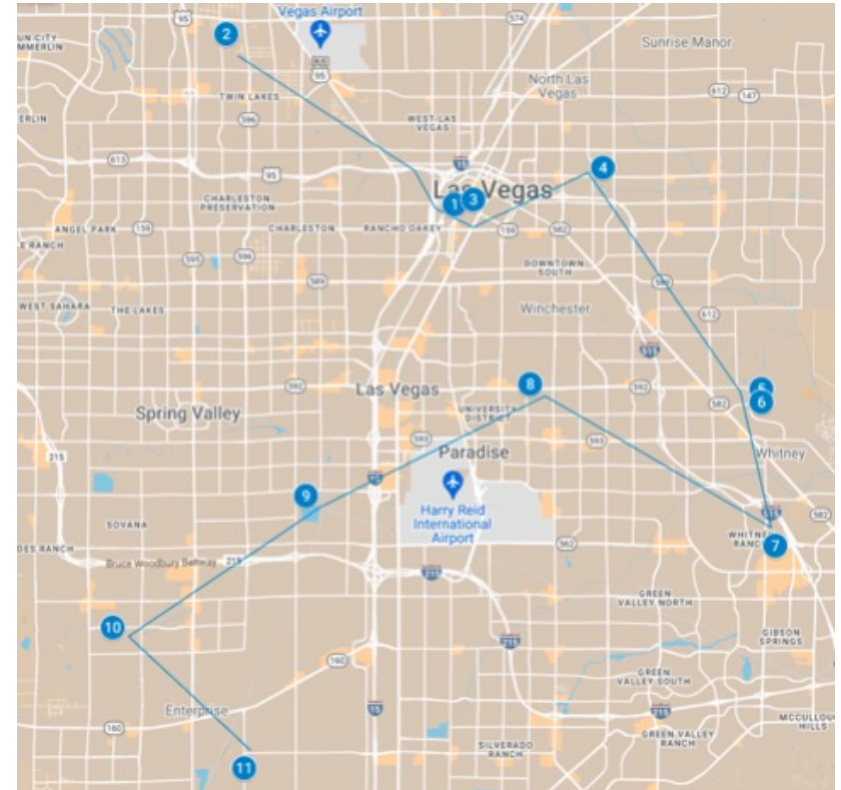
2,471 TOTAL

CLARK COUNTY FLEET ELECTRIFICATION

Metric	Baseline	2030 Target	2050 Target
% of alternative fuel vehicles in County fleet	55% (hybrid and biodiesel)	80%	100%
Gasoline/diesel-powered Vehicle Miles Traveled (VMT) by County vehicles	5,989,200 gasoline-powered VMT 4,778,145 diesel-powered VMT (FY20)	Downward Trends	
GHG emissions from County vehicles	10,737 MtCO ₂ e (FY19)	50% reduction	Zero
% of employees commuting via mode other than driving alone	14%	30%	50%
# of trips made for County business by e-bike	48 (2015-2020)	Upward Trend	

CLARK COUNTY FLEET ELECTRIFICATION

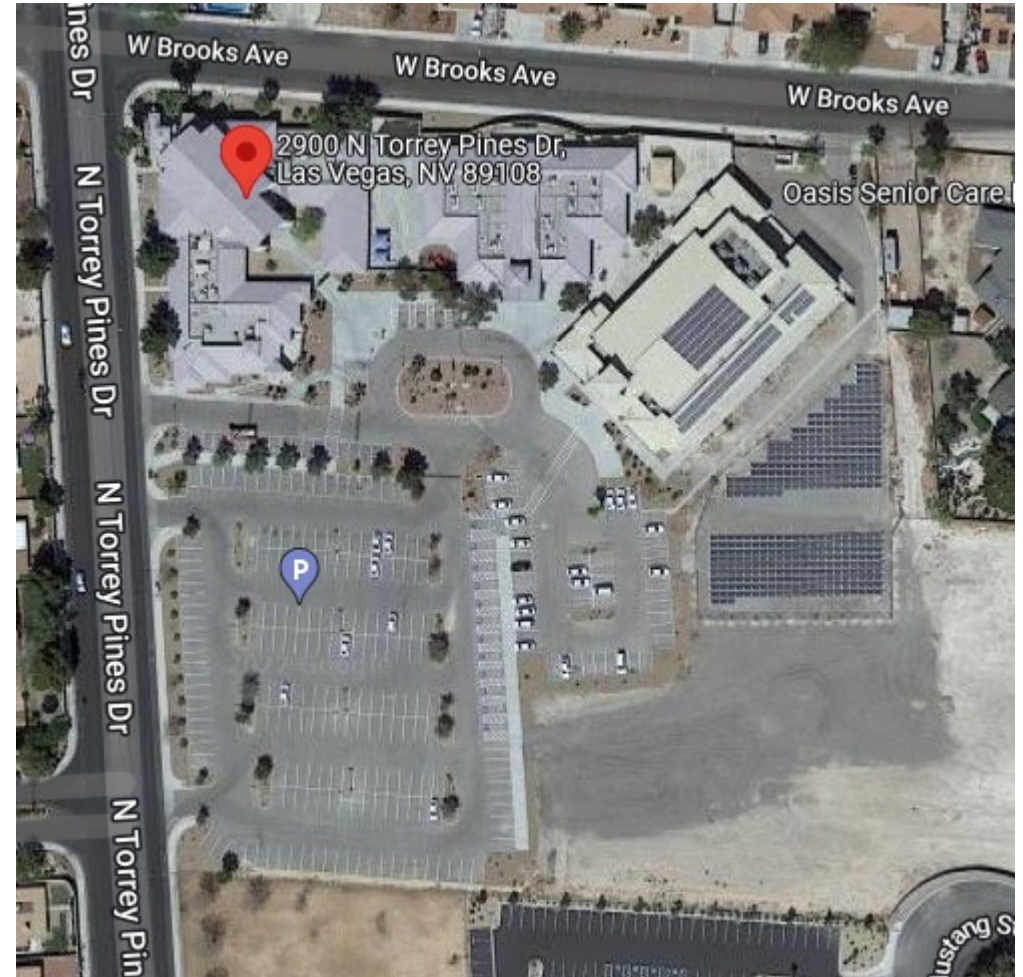
- 2,471 fleet vehicles
- 11 locations
- Determining electrification goals and plans
- Considerations:
 - Costs of vehicles, EV charging infrastructure and electricity
 - Incentives available
 - Procurement schedules
- Site walks began this week



Clark County fleet locations for site walks

EV CHARGING SITE WALKS

- Purpose
- Site Walk Tasks
- Identifying Issues & Benefits
- Site Walk Example



DFS Site as seen in Satellite Map

SITE WALK PURPOSE

- The Purpose of a Site Walk
 - Gather information to help vet and prioritize the location of EV charging stations
 - Use the same process for fleets, workplaces, multifamily and public charging
- Why Site Walks are Important
 - EV charging and installation incentive funds are limited
 - Evaluating all the criteria will help you prioritize the best sites
 - Some information can be gathered online and through meetings
 - But a visit is really needed to scope out any potential issues or identify the “holy grail” sites



Typical Parking Lot to be Walked

SITE WALK TASKS

- Meet the Fleet and Facilities contacts and discuss the site and upcoming plans
- Gather all relevant information about the site and the associated fleet vehicles and employee vehicles that are parked there
- Gather all relevant information about the electric infrastructure at the property and how any new chargers would be fed
- Ascertain an optimum number of EV chargers that would be appropriate for the location and vehicles
- Take relevant photographs that can be referred to later



EV charging station installation construction

IDENTIFY ISSUES

- Identifying Red Flag Issues: What makes this site more expensive or less practical to install charging?
 - Power source is a long distance away
 - Large amount of trenching through concrete or asphalt required
 - Small number of EVs planned; or perhaps several years away
 - Fleet cars will be relocated in 2 years and not at the site long-term



Best Practice: Used existing dirt median to reach cars on both sides. Reduced costs of trenching through asphalt and installing bollards.

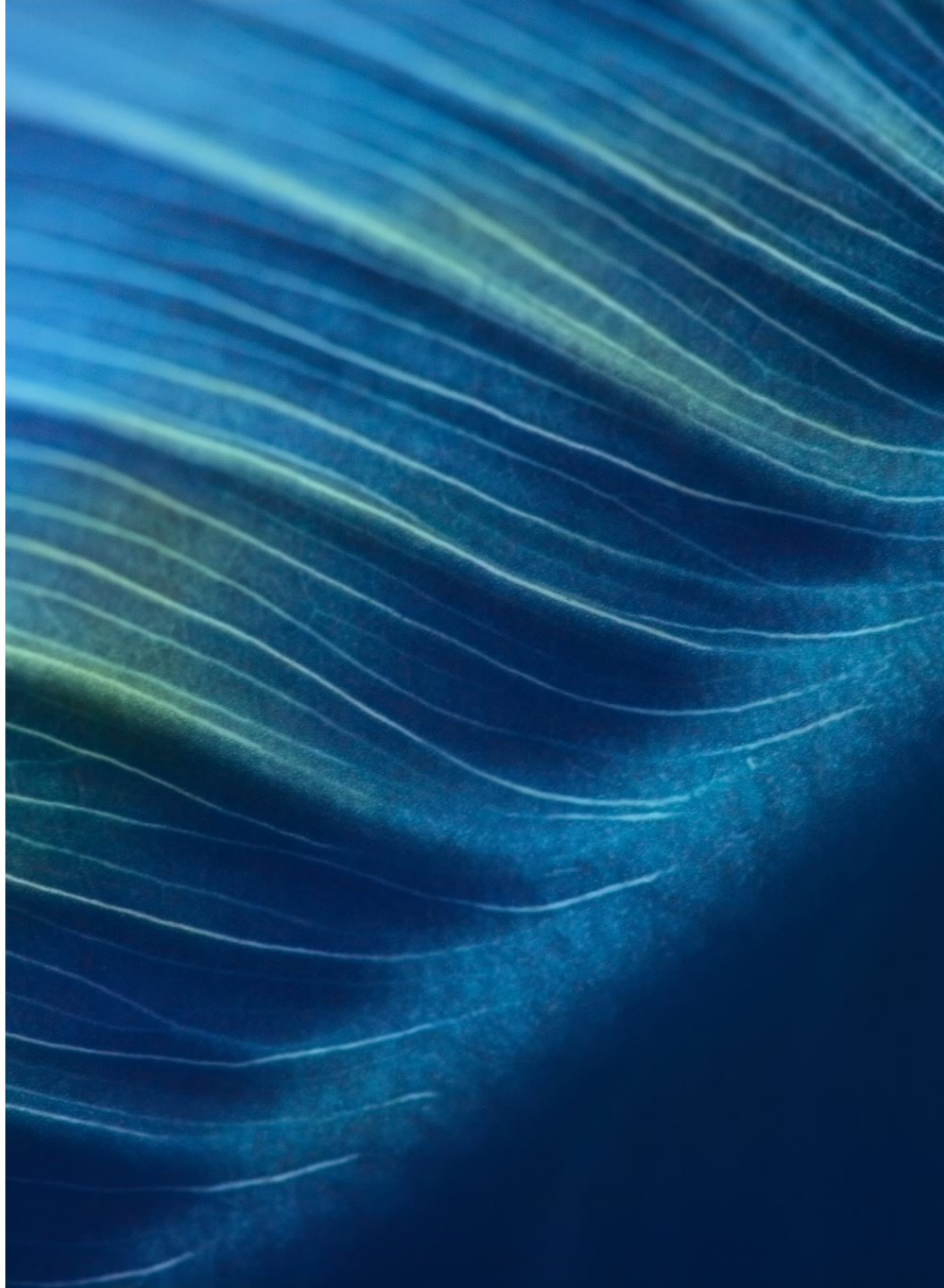
IDENTIFY BENEFITS

- Identifying Green Flag Benefits: What makes this site more attractive to install charging?
 - Existing transformer has excess capacity; close to chargers
 - Trenching would be a short distance; maybe through soil
 - Fleet charging and employee/public charging could be easily accommodated
 - Perhaps plans are in place for upcoming construction in the parking lot that could be leveraged



Benefit: Transformer & Meter Pedestal Close to Chargers

PHASE 1: FLEET ELECTRIFICATION



PHASE 2: FLEET ELECTRIFICATION



HIRE A CONTRACTOR



DESIGN



OBTAIN BUILDING
AND USE PERMITS



PREPARE SITE AND
INSTALL CHARGERS



SITE
INSPECTIONS AND
SITE ENERGIZED



CREATE SAFETY AND
TRAINING POLICIES



BEGIN CHARGING
OPERATIONS



ANNOUNCE INSTALLATION
TO STAKEHOLDERS AND
PUBLIC

TE PLANNING GOALS

April Bolduc, President,
S Curve Strategies

WORKING GROUP

- Understand TE goals
 - EV and charging
- Discover current TE efforts
 - Survey
- Uncover barriers
 - Working Group, Survey, Discussions
- Provide solutions based on best practices
- Develop a model EV charging infrastructure ordinance
- Develop an equitable strategic plan that will meet goals



Credit: Michael Fousert

SOLUTIONS BASED ON BEST PRACTICES

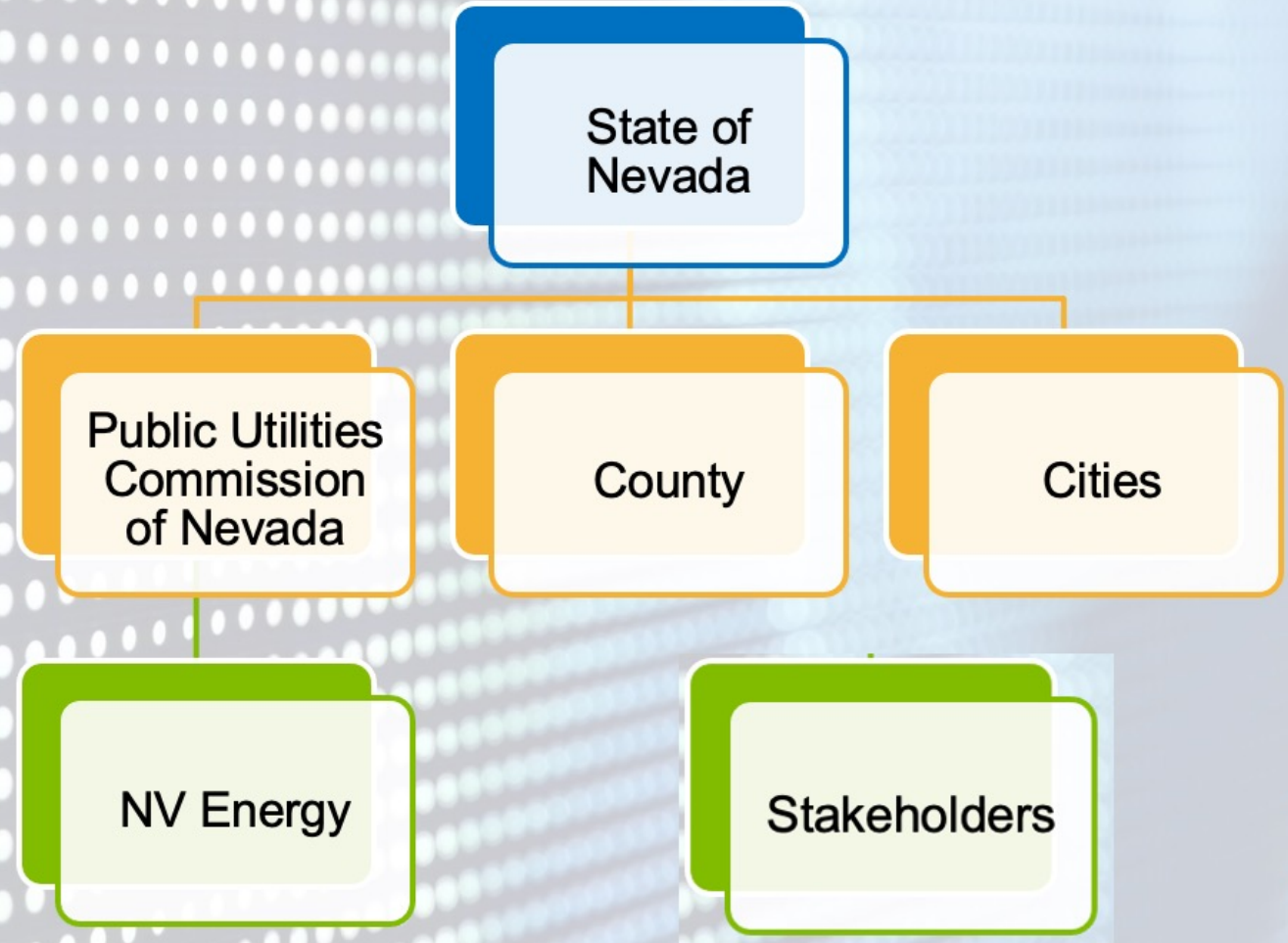
PERMITTING BEST PRACTICES

- Permit streamlining ordinance created
- Permitting checklists for Level 2 and DC fast charging for expedited review
- Permit applications that meet the expedited checklists are administratively approved
- Electronic signatures accepted to speed the process
- Charging not subject to HOA approval
- A single correction notice that lists all permit deficiencies



SOLUTIONS BASED ON BEST PRACTICES

ROLES IN TRANSPORTATION ELECTRIFICATION



NEXT STEPS

- Begin ordinance discussion
- Bring best practices to April meeting



Q&A: PUBLIC & INTERESTED PARTIES

EV DISPLAY

A vertical white line is positioned to the right of the text 'EV DISPLAY', extending from the top of the text to the bottom of the text.

THANK YOU

Findlay Auto Group

Fletcher Jones Imports

Ford Country

Tesla



APPENDIX



WORKING GROUP STRATEGY CORNERSTONE

Project EV demand and the charging infrastructure to support it

- Consider multifamily, single family, public charging, workplace, and underserved communities

Recommendations requested

- Regional EV infrastructure development needs
- Regional EV charging infrastructure installation planning
- Model EV charging infrastructure ordinance, costs and how costs are distributed
- Strategies for funding
- Input to the Nevada Public Utilities Commission
- Economic and workforce development opportunities
- Where EV goals will be housed by government collaborators and transformed into actionable policies and programs