City of Phoenix
Electric Vehicle Programs
April 13, 2021

Karen Apple
City of Phoenix - EV Program Manager
1. EV Community Survey & Results
2. City of Phoenix EV Programs Overview
3. Lessons Learned & Best Practices
EV Community Survey & Results
# EV Community Survey & Results

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Survey Purpose</strong></td>
<td>• Solicit input from 33 MAG member agencies on EV fleet adoptions and EVSE installations and to identify support for regionwide EV programs</td>
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<td>• Demonstrate support for Regional EV Programs and potential project to be included in Prop 400 Extension</td>
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<tr>
<td><strong>Survey Logistics</strong></td>
<td>• Administered from September 14-25, 2020</td>
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<td>• 30/33 responses from Cities, Towns, Counties, Tribal Governments</td>
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<tr>
<td><strong>Survey Questions</strong></td>
<td>• # of BEV’s and PHEV’s in fleet</td>
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<td>• EVSE installations on public property</td>
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<td></td>
<td>• Support for Regional EV charging infrastructure study</td>
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<td>• Contact information</td>
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<tr>
<td><strong>Survey Results &amp; Summary</strong></td>
<td>• 29/30 - interested in participating and/or supporting MAG regionally EV programs</td>
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<td>• 11/30 - BEV’s or PHEV’s in fleet</td>
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<td></td>
<td>• 20/30 - EVSE’s installed available for public, fleet, or workplace use</td>
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<td></td>
<td>• Several members commented that funding is budgeted for BEVs for 2021</td>
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**Key Message**  
*MAG member agencies have a commitment to increasing the adoption of BEVs and installing EV charging stations and understand the transition to BEVs is an important action in addressing air quality in the region.*
City of Phoenix EV Programs Overview
## 5 A’s of Market Penetration Strategies

<table>
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<tr>
<th>Awareness</th>
<th>Target audience, why they should care, do consumers know about EV’s</th>
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<tbody>
<tr>
<td>Acceptability</td>
<td>Have consumers bought into benefits and technology, and/or approve and meet or exceed expectations</td>
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<tr>
<td>Affordability</td>
<td>Do consumers have purchasing power</td>
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<tr>
<td>Availability</td>
<td>Are vehicles at dealers, model options</td>
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<tr>
<td>Accessibility</td>
<td>Ease of acquisition, use of vehicles and chargers</td>
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</table>
**Growth/Incentives**
- Direct subsidies
- Tax credits
- Vehicle tax exemptions and freebates
- Non-Monetary Incentives (HOV lane, emissions exemptions)
- Install charging stations

**Maturity/Regulation**
- Carbon taxes
- Vehicle mandates
Overall Strategy and Vision

Net-zero Greenhouse Gas (GHG) Emissions by 2050

- Lead by example to reduce GHG emissions and improve air quality
- Improve sustainability, affordability, and livability in Phoenix
- Remove barriers to EV adoption
Phoenix - EV and EVSE Growth

**Phoenix EV Registrations**

- 2019: 6,761
- 2025: 34,819
- 2030: 292,481

Intermediate growth rate of 5.15% used for projections

**Source:** Actual - EPRI

**Phoenix EVSE Projections**

- 2020: 6,660
- 2025: 4,472
- 2030: 725

2020 = 153 existing stations

**Source:** USDOE – AFDC, based on 5.15% EV growth rate projections
City of Phoenix EV Strategies by Sector

**Policy**
- **Innovation & Awareness**
  - **Fleet**
    - Collaborate with City Departments to educate on the benefits and costs and to transition City’s light duty sedan fleets to EVs
  - **EV Charging Infrastructure**
    - Increase installations and availability of public, workplace/employee, and fleet charging infrastructure
  - **EV Equity**
    - Engage the disadvantaged and underserved communities to provide programs and policies to increase EV adoption
  - **Building Codes**
    - Collaborate with SF, MF, and commercial building organizations and City Planning & Development Dept to implement EV-Ready building codes for new developments
### Fleet
- **In Process**
  - Increase EV fleet transitions
  - Increase use of Mayor’s Collaborative Purchasing Program

- **Planned**
  - Develop Green Sustainable Fleets Plan

### EVSE
- **In Process**
  - **APS**
    - 4 - Level 2 - Adams St. Garage – (Employee)
    - 8 - Level 2 - 305 W Washington St Garage (Fleet)
  - **SRP** – Rebate Program
  - **Blink** – Upgrade of 43 L2 ports at 11 sites

- **Planned**
  - Develop City EVSE Siting Study

### Education & Outreach
- **In Process**
  - Partner with APS/SRP and other community groups
  - Develop EV equity programs
  - Develop E&O Plan

- **Planned**
  - National Drive Electric Week events
  - Develop employee and resident E-bike pilot program

- **Planned**
  - Develop EV Roadmap

### Building Codes
- **In Process**
  - Coordinating with SF and MF home builder associations
  - Coordinating with City Planning Department on codes and permit process

- **Planned**
  - Implement EV Ready Building Codes for new SF, MF, and commercial properties
# 7 Steps – Accelerate to Goals

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<tr>
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<tbody>
<tr>
<td>1</td>
<td>Downscale to regional and local municipality</td>
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<tr>
<td>2</td>
<td>Access to EPRI EV stats and data for state, regions, &amp; cities</td>
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<td>3</td>
<td>Continued incentives for EVs and EVSE’s</td>
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<tr>
<td>4</td>
<td>Central repository for marketing materials, images, maps</td>
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<tr>
<td>5</td>
<td>Partner for virtual and in person events</td>
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<tr>
<td>6</td>
<td>Regional EV Infrastructure Needs Assessment &amp; Siting Plan</td>
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<td>7</td>
<td>Equity Partnership Projects</td>
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**Statewide Electrification Plan and Goals**

**Data Access and Outreach/Education**

**Maricopa Association of Governments**

**EV Equity**
Lessons Learned & Best Practices
1. EV Education to Internal Departments

2. EVSE Planning
   - Approach for fleet, public, and workplace & no cost or cost to charge
   - Site identification and screening and electrical panel review
   - Costs: planning, design, electrical upgrades, construction and install, charging equipment, networking fees, maintenance fees, Archaeology
   - Access to alternative EVSE contracts (Sourcewell, National Car Charging)

3. EV Planning
   - Identify list of vehicles eligible for replacement (light duty sedans and pickups)
   - Access Climate Mayor’s Collaborative Purchasing Program
   - Leasing options