

**ASU – Sustainable Cities Network
Solar & Energy Efficiency Workgroup**

City of Phoenix
Electric Vehicle Programs

April 13, 2021



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Agenda



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



Survey Item	Description
<i>Survey Purpose</i>	• Solicit input from 33 MAG member agencies on EV fleet adoptions and EVSE installations and to identify support for regionwide EV programs • Demonstrate support for Regional EV Programs and potential project to be included in Prop 400 Extension
<i>Survey Logistics</i>	• Administered from September 14-25, 2020 • 30/33 responses from Cities, Towns, Counties, Tribal Governments
<i>Survey Questions</i>	• # of BEV's and PHEV's in fleet • EVSE installations on public property • Support for Regional EV charging infrastructure study • Contact information
<i>Survey Results & Summary</i>	• 29/30 - interested in participating and/or supporting MAG regionally EV programs • 11/30 - BEV's or PHEV's in fleet • 20/30 - EVSE's installed available for public, fleet, or workplace use • Several members commented that funding is budgeted for BEVs for 2021
<i>Key Message</i>	<i>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.</i>



City of Phoenix EV Programs Overview

5 A's of Market Penetration Strategies



Awareness

Target audience, why they should care, do consumers know about EV's

Acceptability

Have consumers bought into benefits and technology, and/or approve and meet or exceed expectations

Affordability

Do consumers have purchasing power

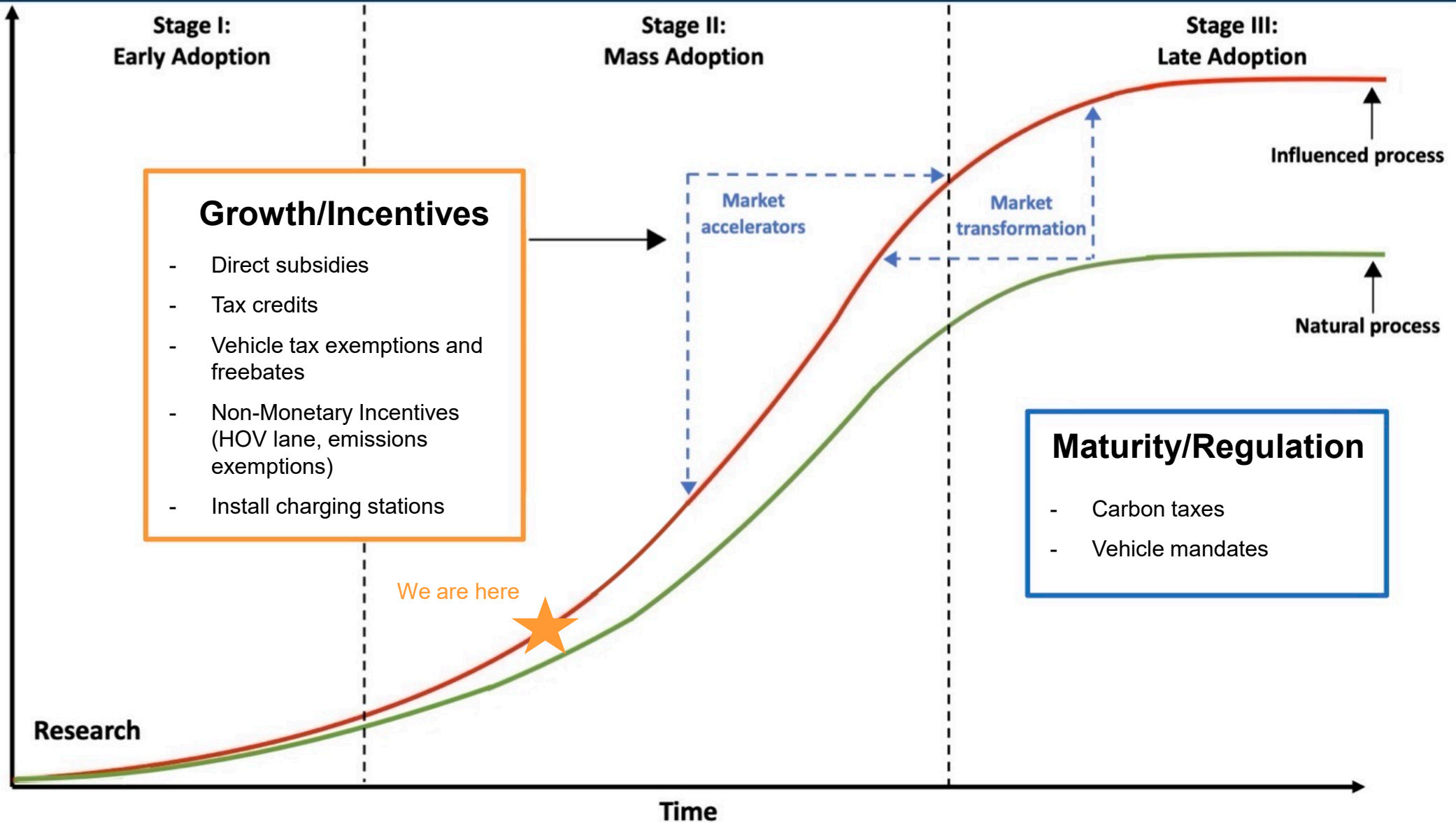
Availability

Are vehicles at dealers, model options

Accessibility

Ease of acquisition, use of vehicles and chargers

EV Market Transformation and Adoption Curve

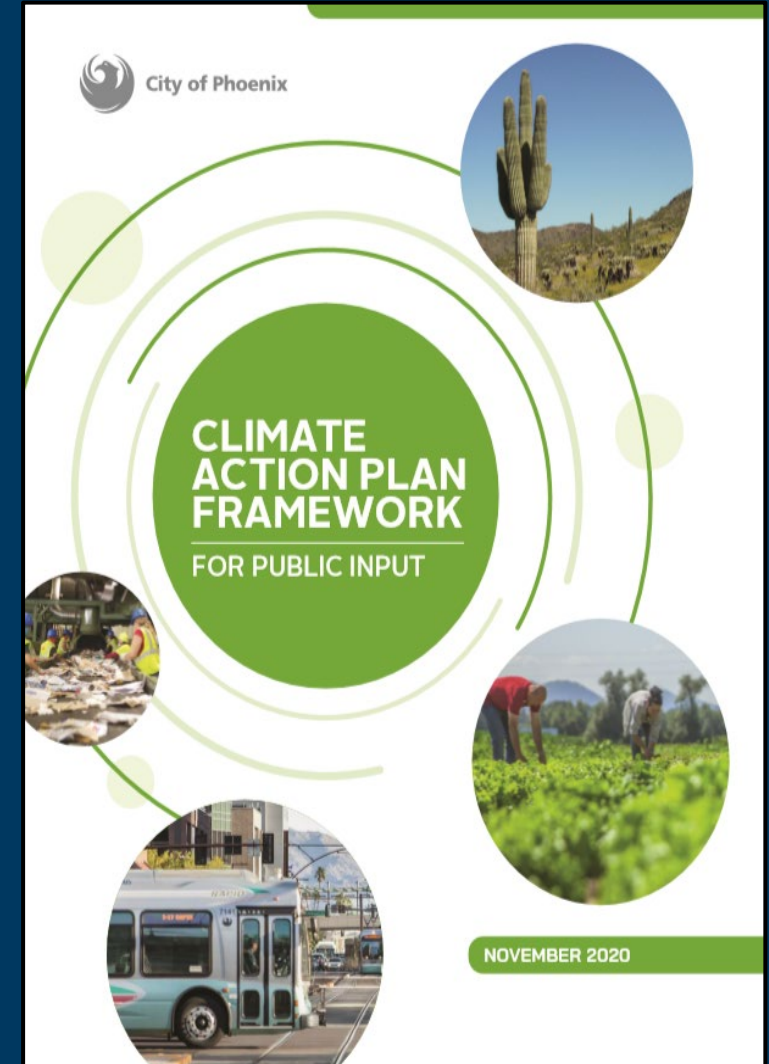


Overall Strategy and Vision

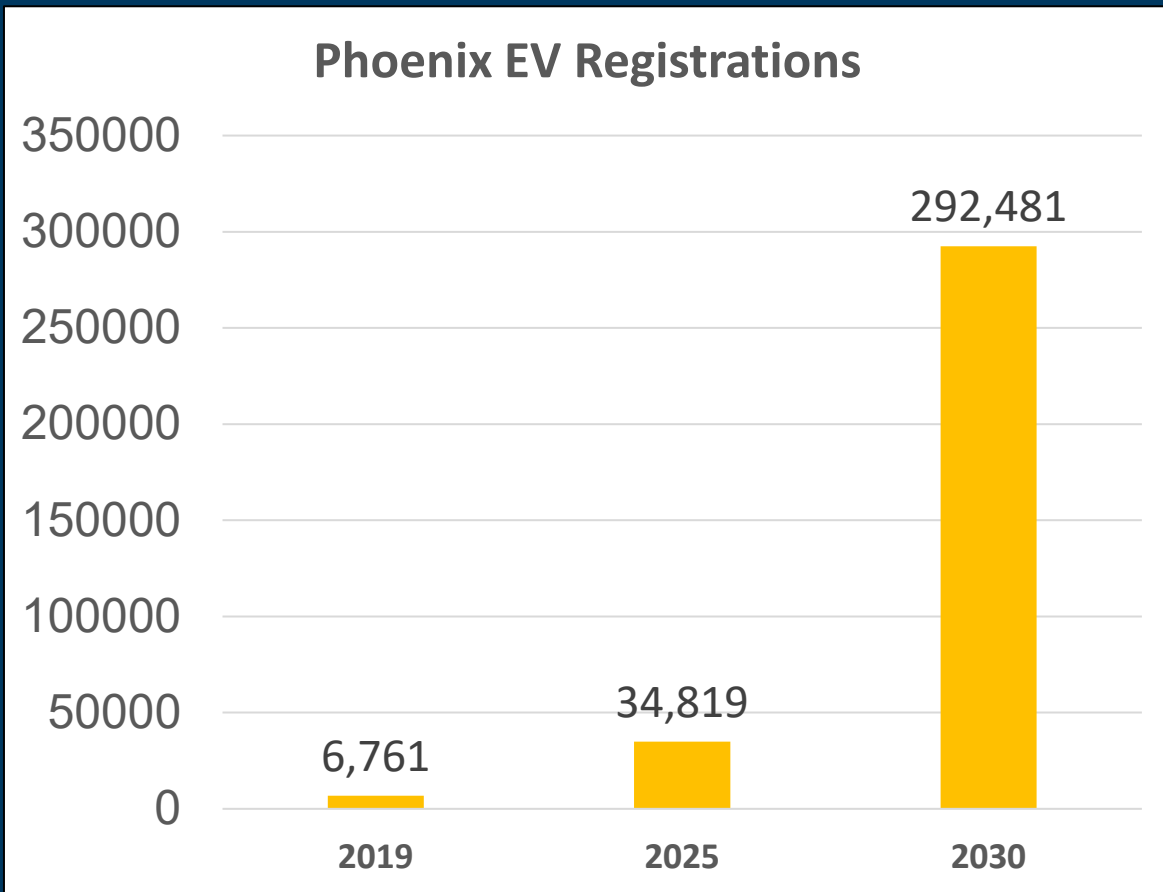


Net-zero Greenhouse Gas (GHG) Emissions by 2050

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

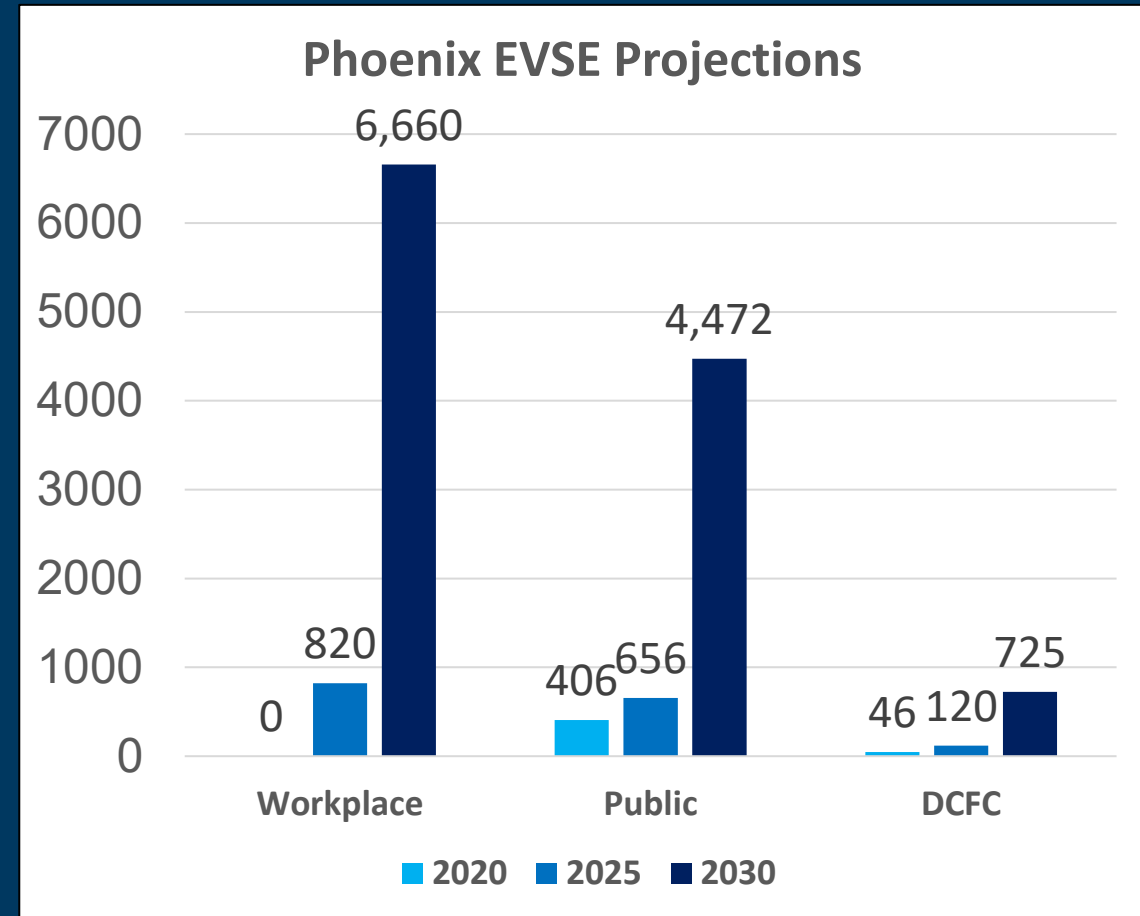


Phoenix - EV and EVSE Growth



Intermediate growth rate of 5.15% used for projections

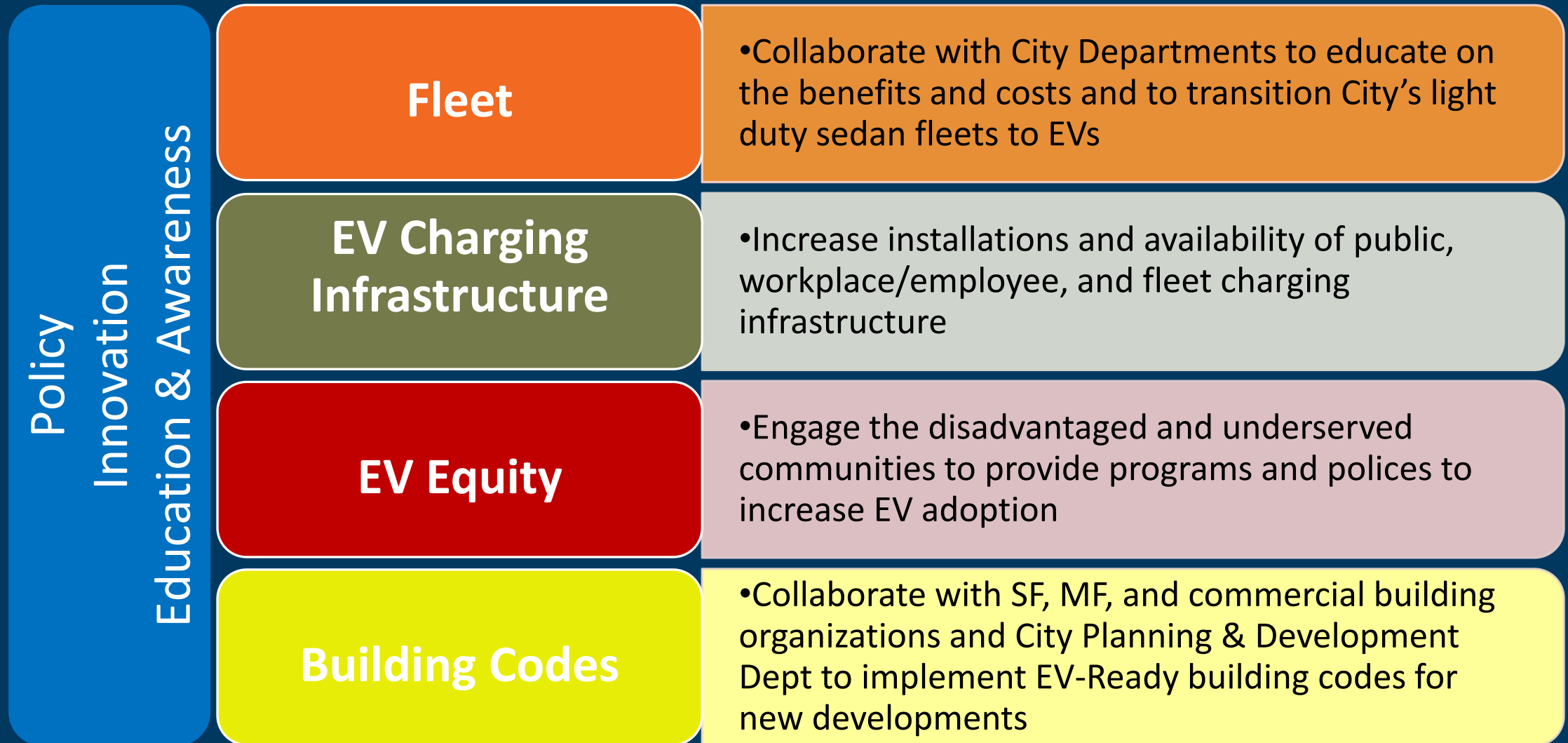
Source: Actual - EPRI



2020 = 153 existing stations

Source: USDOE – AFDC, based on 5.15% EV growth rate projections

City of Phoenix EV Strategies by Sector



City Projects – In Process and Planned



Fleet	EVSE	Education & Outreach	Building Codes
In Process	In Process	In Process	In Process
• Increase EV fleet transitions • Increase use of Mayor's Collaborative Purchasing Program	• 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	• Partner with APS/SRP and other community groups • Develop EV equity programs • Develop E&O Plan	• Coordinating with SF and MF home builder associations • Coordinating with City Planning Department on codes and permit process
Planned	Planned	Planned	Planned
• Develop Green Sustainable Fleets Plan	• Develop City EVSE Siting Study	• National Drive Electric Week events • Develop employee and resident E-bike pilot program • Develop EV Roadmap	• Implement EV Ready Building Codes for new SF, MF, and commercial properties

7 Steps – Accelerate to Goals



Statewide Electrification Plan and Goals

1. Downscale to regional and local municipality

Data Access and Outreach/Education

- 2. Access to EPRI EV stats and data for state, regions, & cities
- 3. Continued incentives for EVs and EVSE's
- 4. Central repository for marketing materials, images, maps
- 5. Partner for virtual and in person events

Maricopa Association of Governments

6. Regional EV Infrastructure Needs Assessment & Siting Plan

EV Equity

7. Equity Partnership Projects



Lessons Learned & Best Practices

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

Thank You

