

City of Mesa Community EV Action Plan

City Council Presentation 10-26-23



EVs Today

Current Conditions Relating to Electric Vehicles in Mesa and Arizona



The transition to EVs will take time.



Vehicles on the Road Today

These personal light-weight vehicles represent the 280 million cars, SUVs, vans, and pickup trucks on America's roads today. The vast majority run on gasoline.

Projected on the Road in 2035

Electric vehicles sales have been growing. Even if they reached 100% of sales in 2035, 60% or more of vehicles on the road would still be powered by gasoline.

Projected on the Road in 2050

Even in 2050, after 15 years of selling only EVs, a small but significant share of vehicles on the road will still run on gasoline.

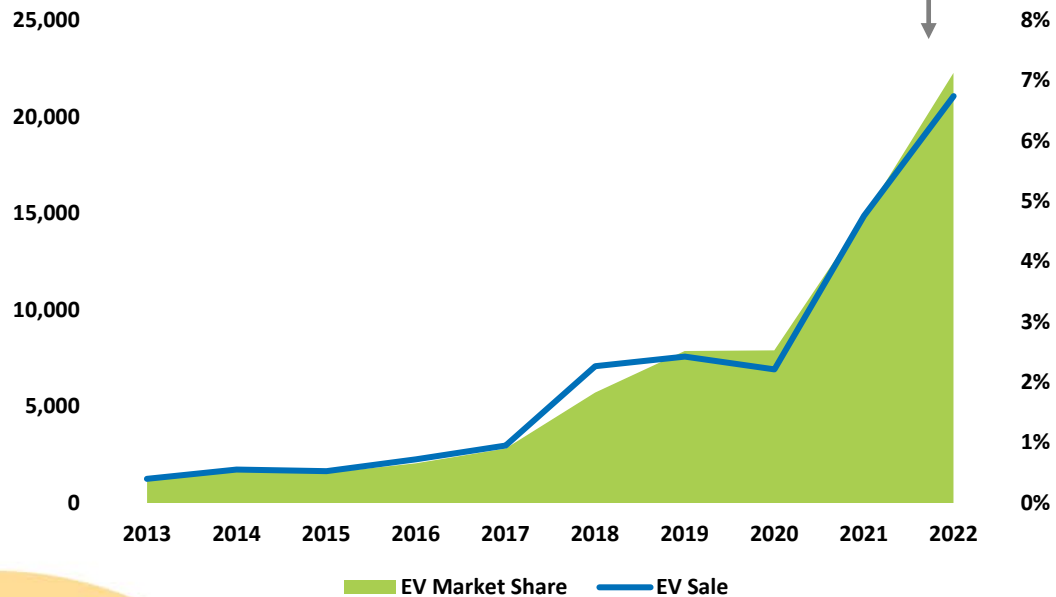
 Electric  Gasoline



EV Sales and Ownership Are Growing in AZ

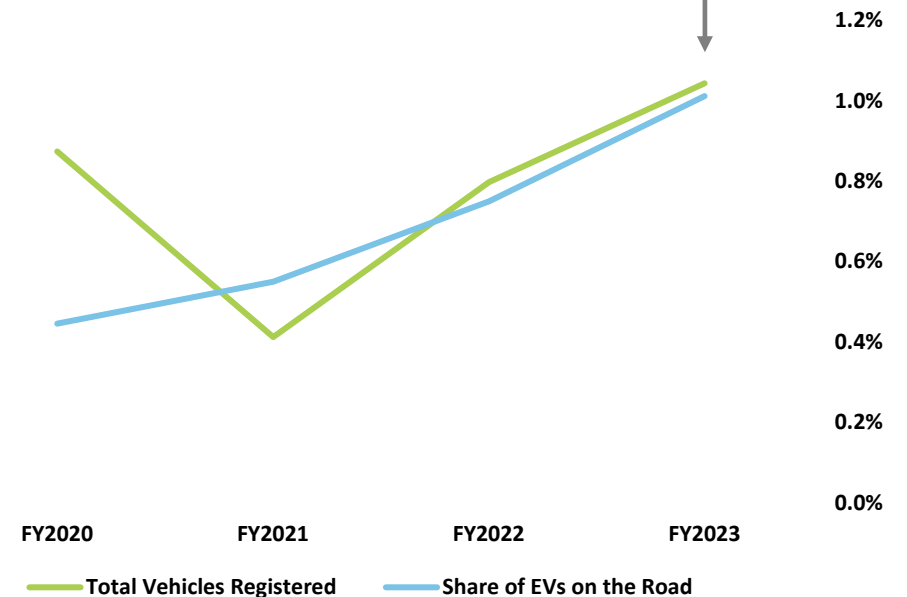
1,600%

increase in EV sales over past ten years

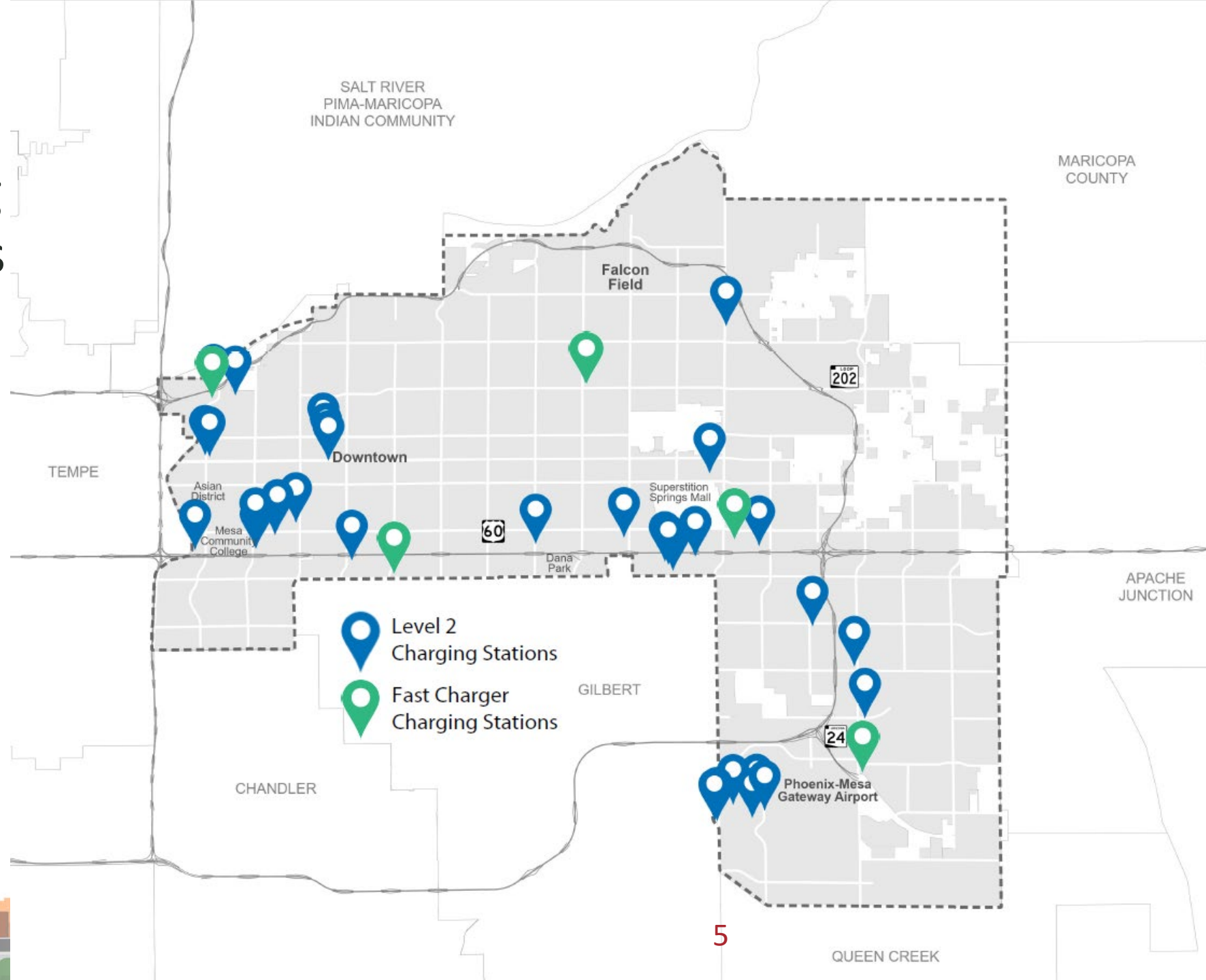


131%

increase in EVs over three years

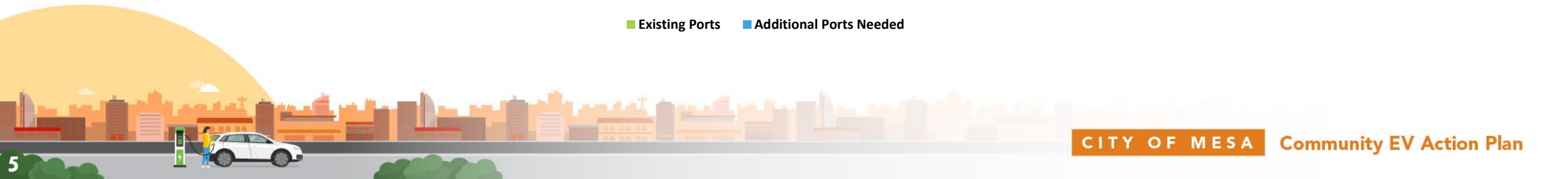
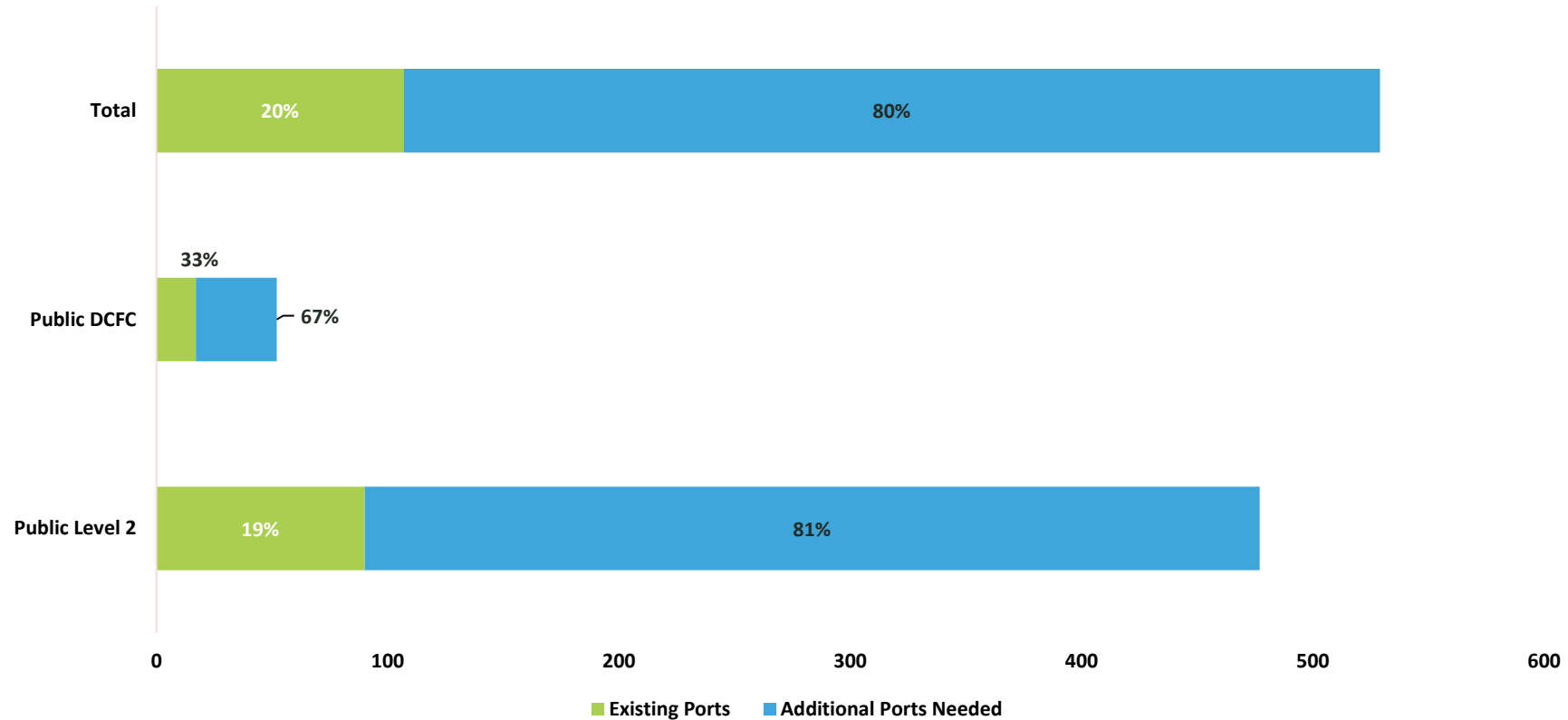


Existing Charging Station Locations



Chargers are here today but supply lags demand

Today: Existing Ports vs Ports Needed



Housing Units in Mesa

62%

Single Family

38%

Multi-Family



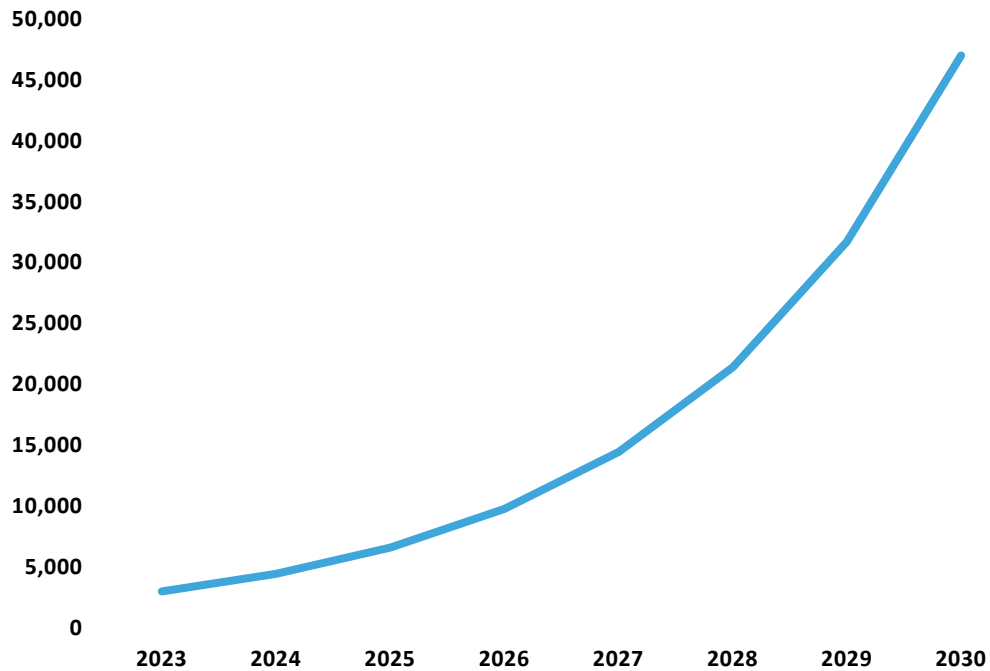
EVs Tomorrow

2030 Expectations and Projections

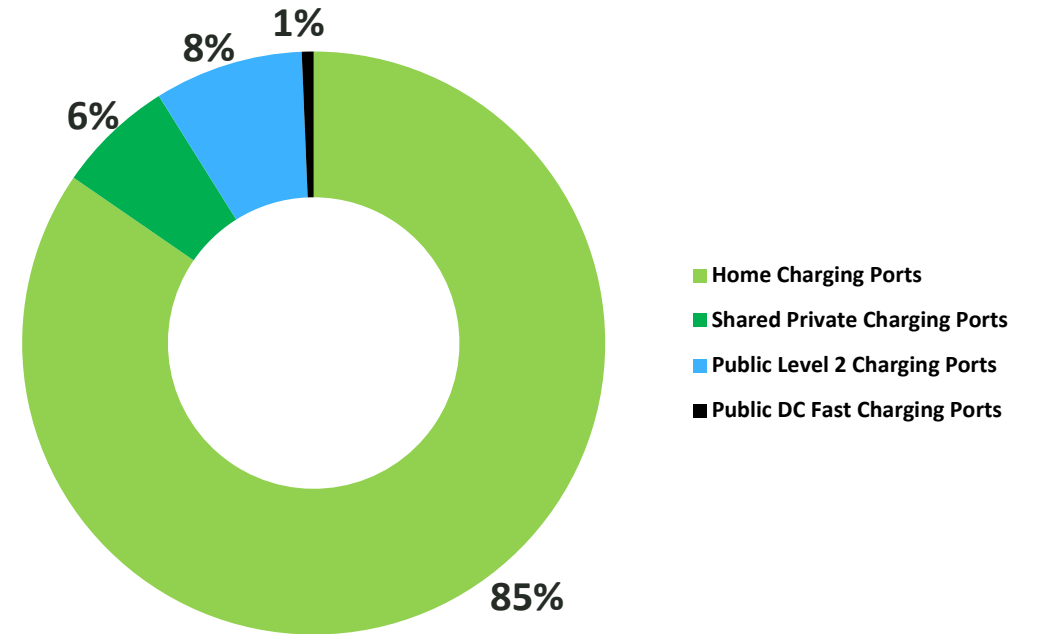


Where will people charge their vehicles in 2030?

Projected EVs on the Road in Mesa to 2030

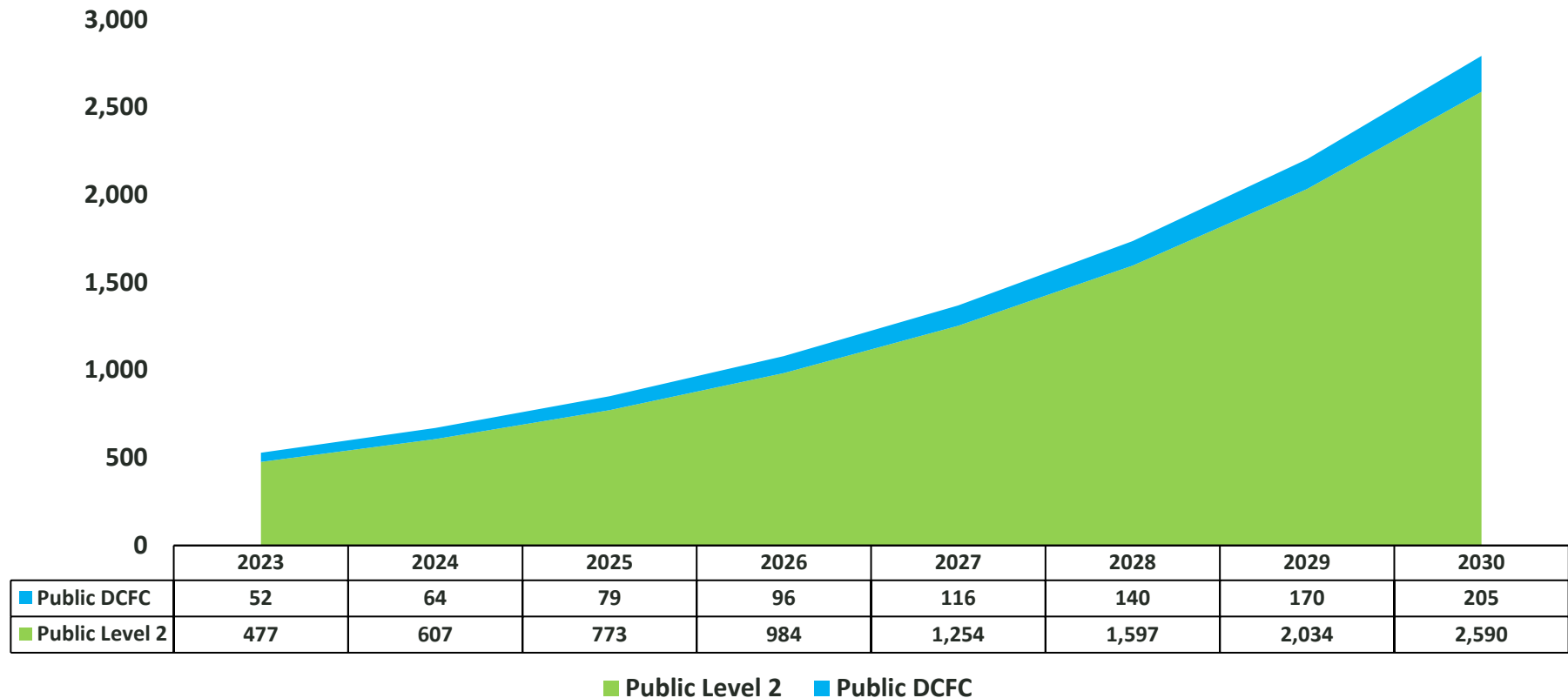


Mesa Distribution of Charging Ports Needed in 2030



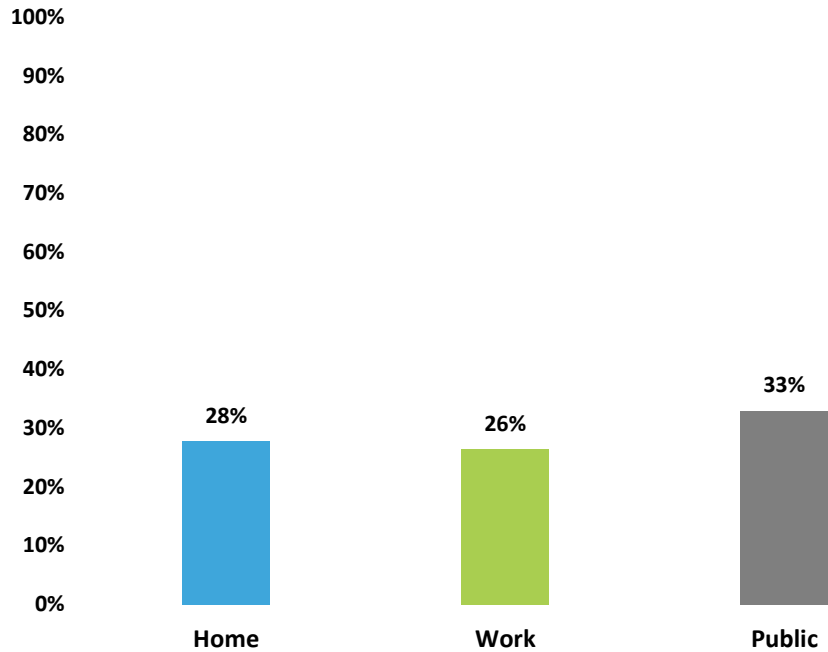
386 ports per year are needed between now and 2030

Projected Public Charging Ports Needed in Mesa

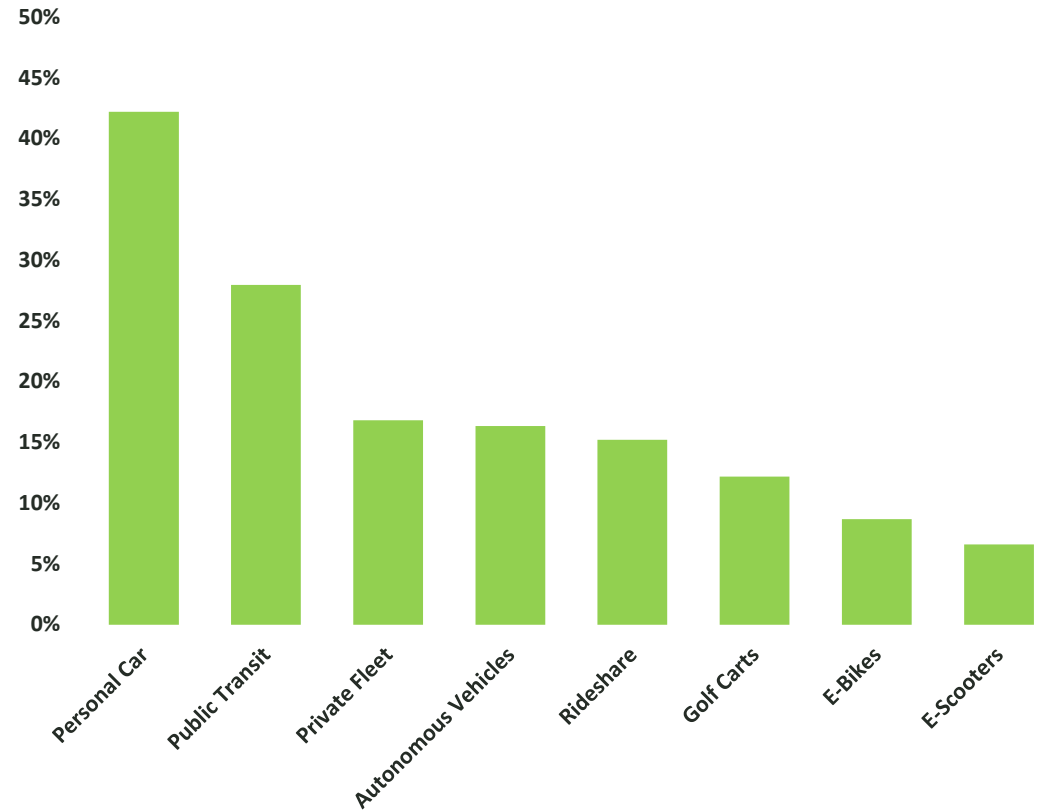


EV Perceptions and Priorities

Do you have access to EV charging?



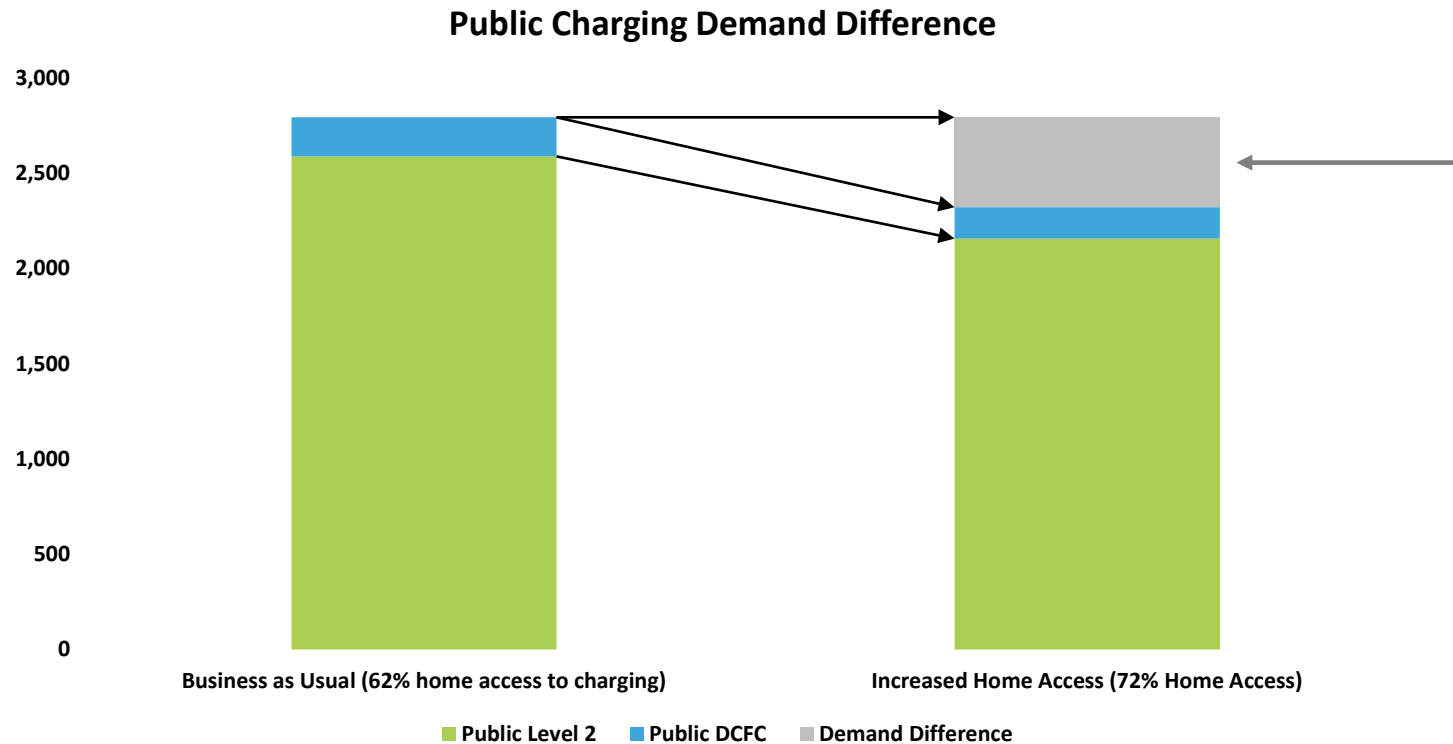
Highest EV Priority



EV Strategies



How can public policy influence charging access?

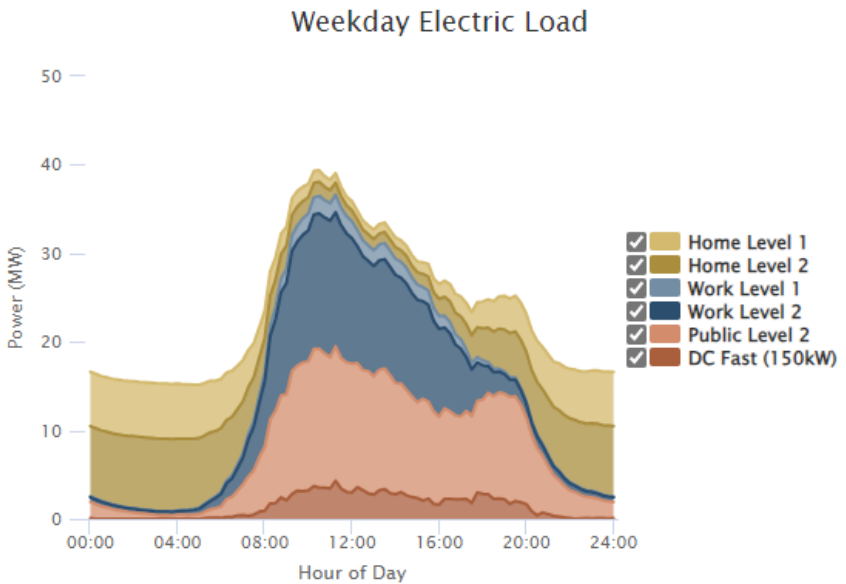


A 10% increase in home charging will result in a 17% decrease in public charging port demand.

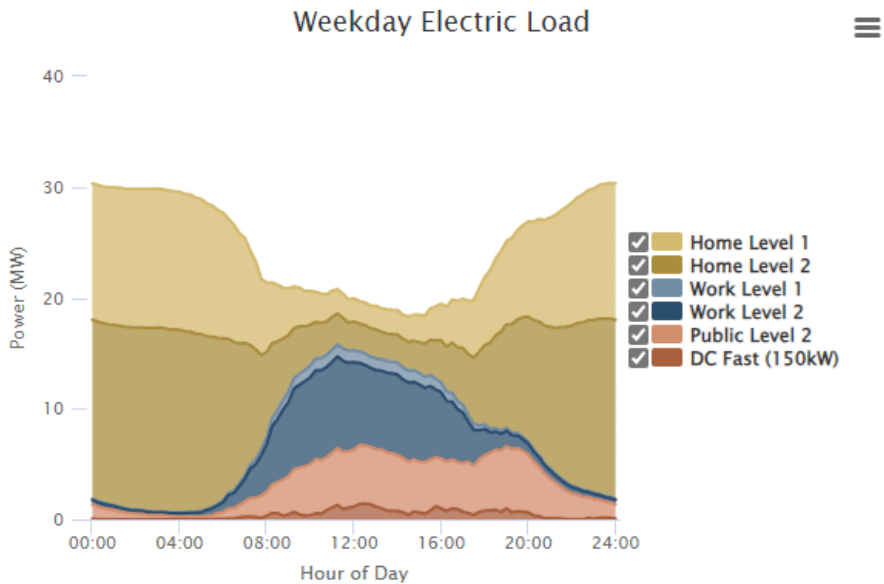


EV 2030 Public Charging Scenarios: Time of Day Electric Load

50% access to home charging



100% access to home charging



Four Strategy Focus Areas



Increase charging access at home, particularly for people in multifamily housing.



Increase access to public charging in neighborhoods, at work, and where home charging is less accessible.



Support multi-modal access to electrification, including e-bikes, transit, neighborhood electric vehicles, and other micromobility devices.



Support development of a wide range of energy sources that reduce greenhouse gas emissions.



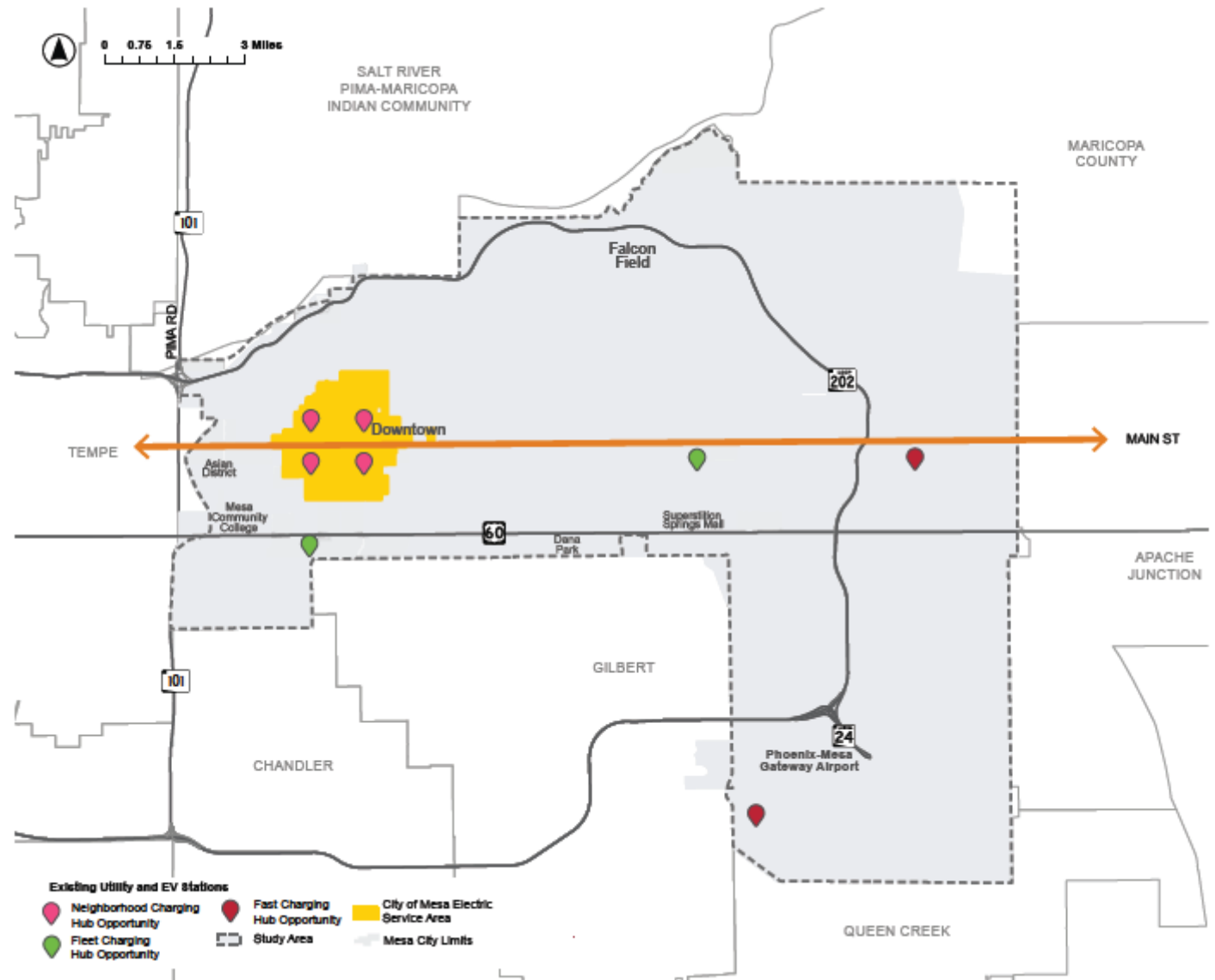
Charging and Fueling Infrastructure Grant

Number of Proposed Stations: 8

Number of Proposed Ports: 118

118 ports = 30% of ports needed in one year

Proposed Station Locations



Discussion





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