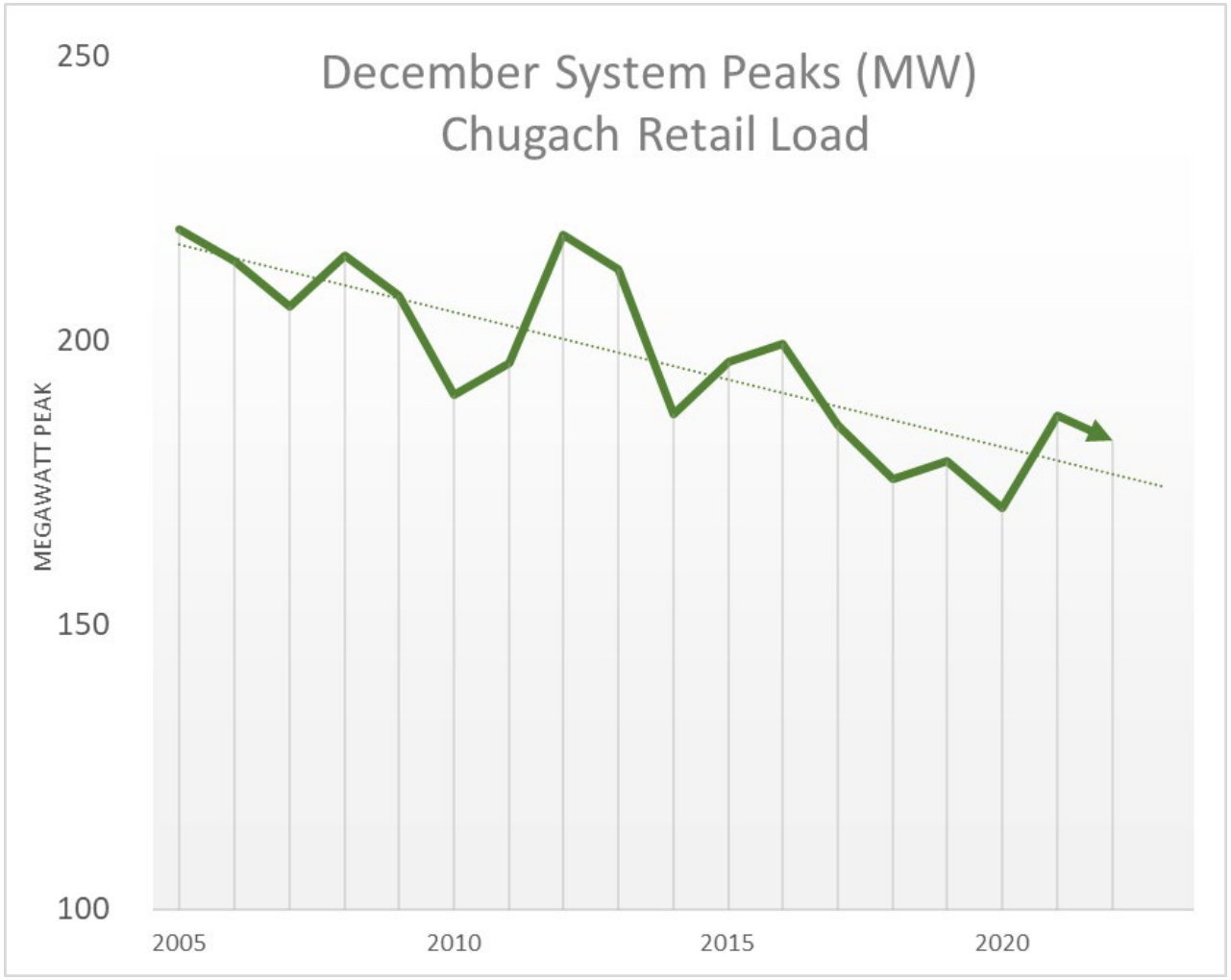
Electric Vehicles and Utility Preparedness in Alaska

Clean Transportation Leadership Roundtable

Mark Henspeter - Chugach Electric Association, Inc.

Is the Alaska grid ready for EVs?

Historic tends toward lower peaks, higher system utilization



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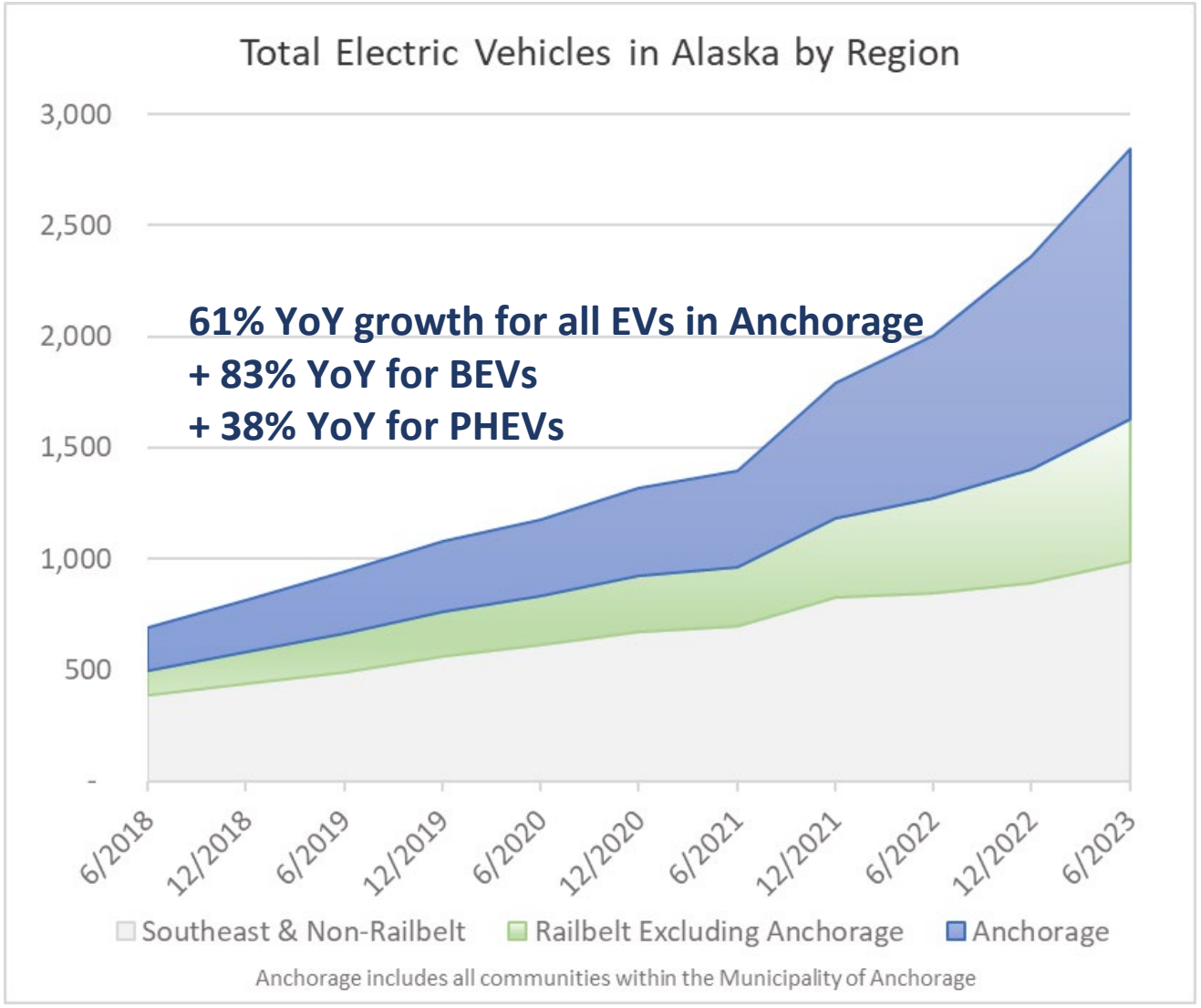
Evolving trends in regional markets

Railbelt growth is accelerating quickly



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Regulatory Environment – EV Tariffs

A predictable regulatory environment is essential to long-term planning and investment

Utilities modernized rates and rules in 2022 with EV tariff to reduce barriers for EV charging

- Chugach introduced tariff for DCFC
- Clarified EV charging is not resale of electricity
- Expanded EV tariff to include Level 2 charging
- Introducing Time-Of-Use rate pilot in 2025

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Supporting EV Adoption

Direct and indirect incentives for residential and commercial EV charging

Incentives accelerate adoption and provide insight

Line extension credits to reduce cost of utility upgrades (Up to $100/kW)
$200 residential incentive
$1,000 commercial Level 2 incentive
$5,000 commercial Level 3 incentive

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System Planning and Infrastructure

Partner with industry to invest in charging infrastructure to catalyze EV adoption

Include future EV charging projects in long-term infrastructure planning and procurement

Critical hardware like transformers and switchgear are now 12–24-month lead and costs are up 50-200% since 2019

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Future Opportunities and Challenges

Evaluate managed EV charging and DERs, bidirectional charging and Vehicle to Home (V2H)

Support consolidated charging facilities for fleet EVs

Develop flexible inventory of transformers and switchgear

Establish long-range plans to prepare utility infrastructure for emerging needs

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Energy Resources and Sustainability

Support sustainable transportation with low-carbon energy resources

Chugach has established decarbonization goals of at least 35% by 2030, 50% by 2040, from 2012 baseline

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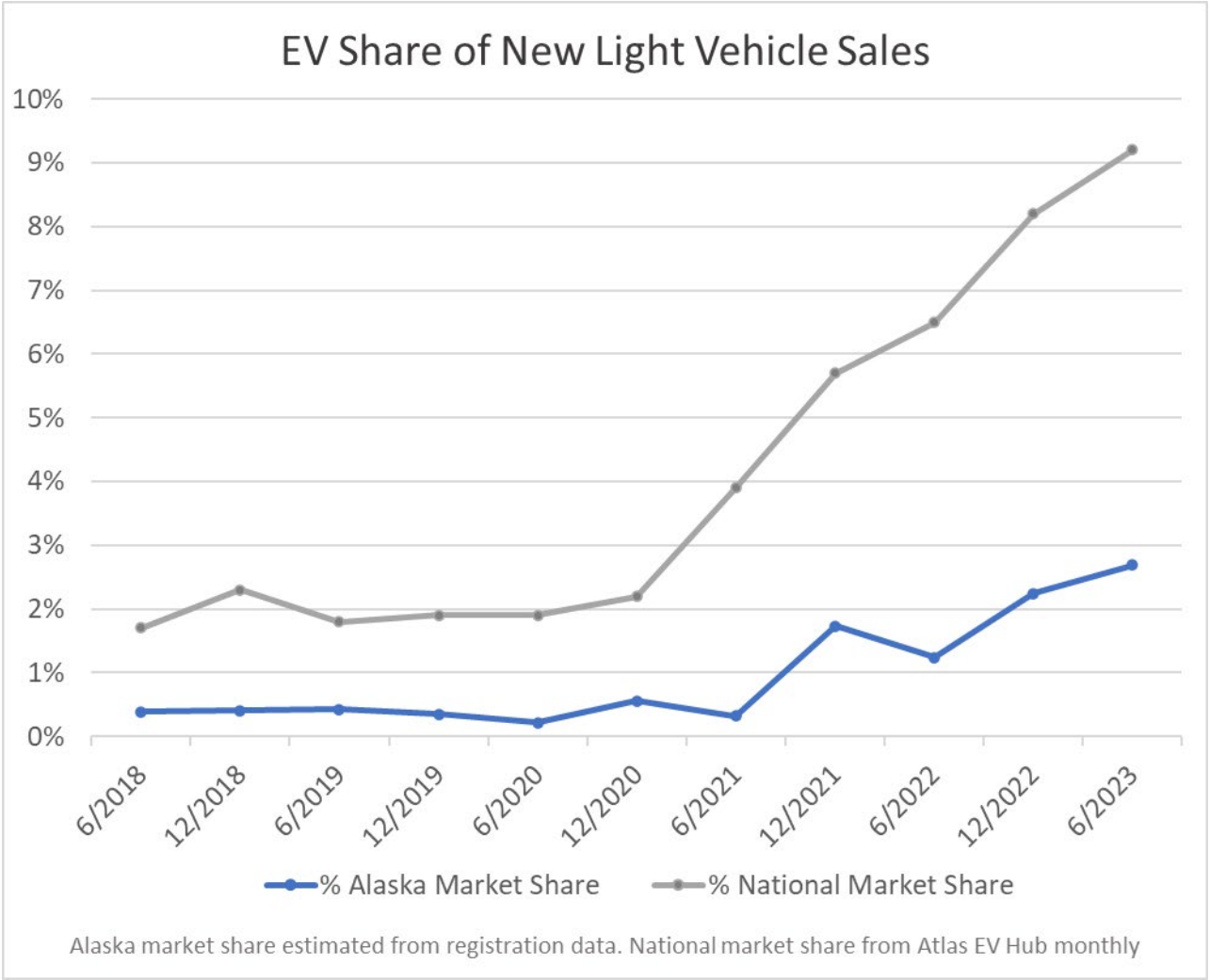
Following slides for context as necessary

Supporting Slides: EV Growth Statewide

EVs currently 2-3% market share

Over 100 new EVs per month on road system



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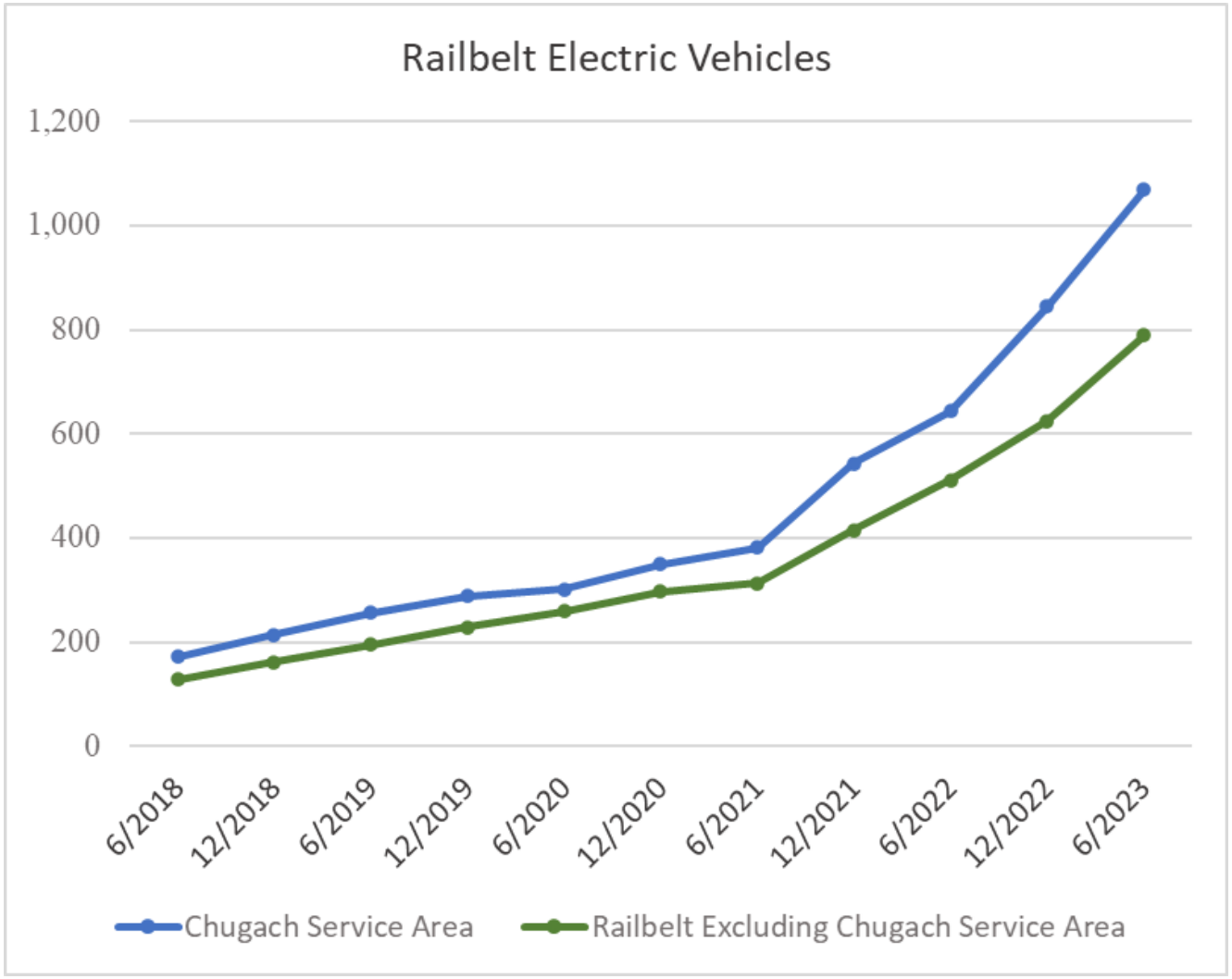
Supporting Slides: EV Growth Statewide

Over 70% of total EVs in Alaska are BEV

Urban EVs in Anchorage higher % BEV



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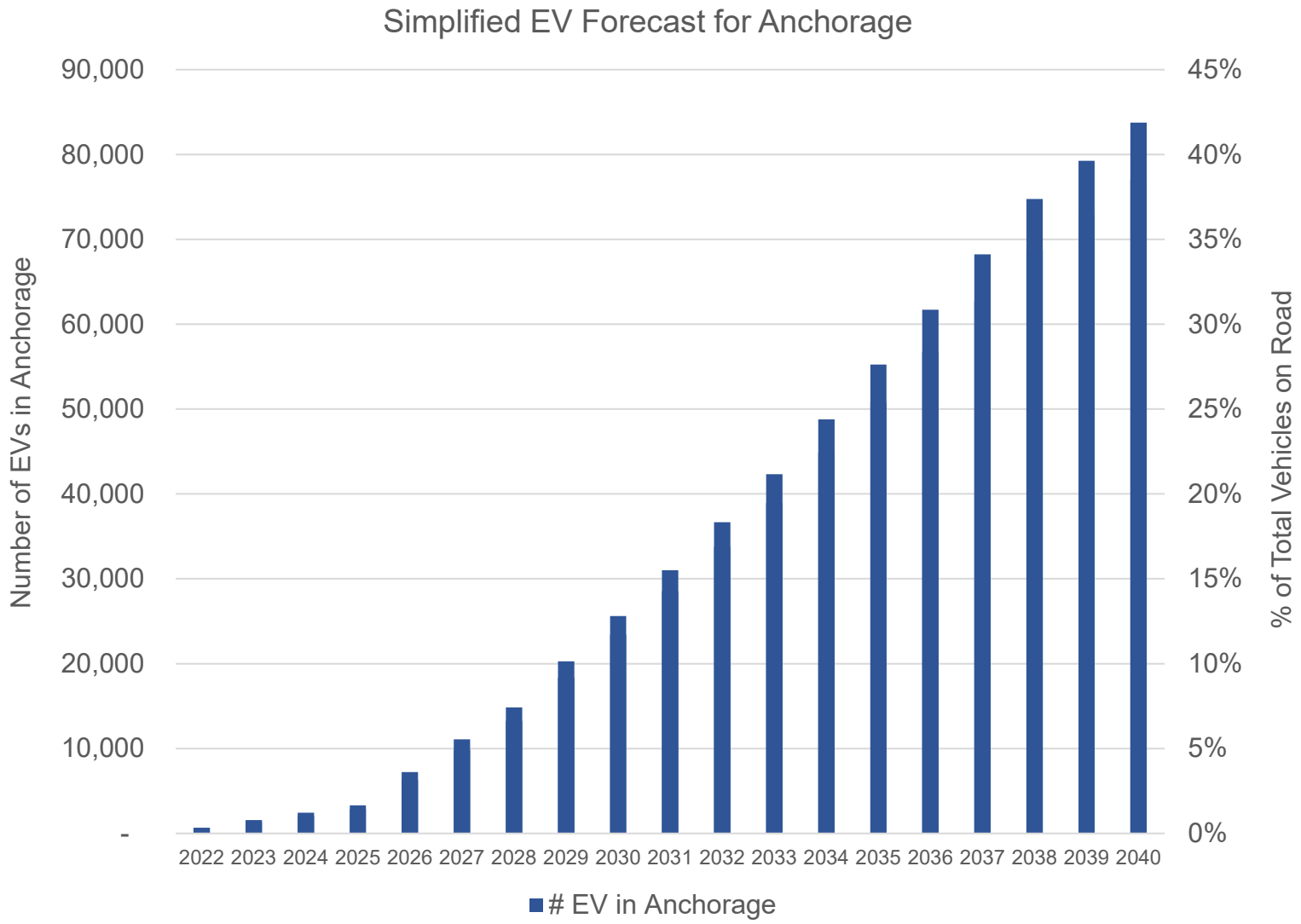
Supporting Slides: Potential Future Growth

EV growth will require significant investment in charging infrastructure, workforce development, distribution infrastructure



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Supporting Slides: Potential Future Growth

We are early in the EV transition

Significant growth potential for fleet & heavy EVs

Persistent demand will for residential charging, potential for distribution impacts