

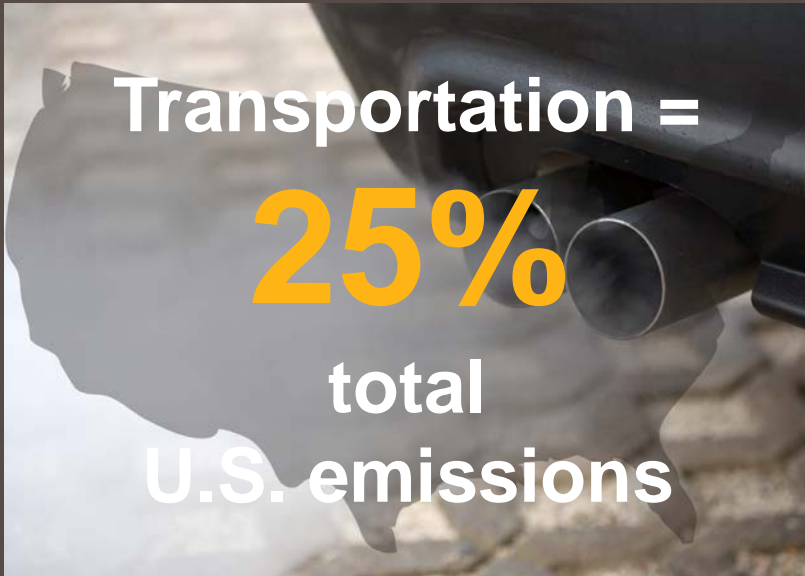
Exhibit to Agenda Item #1 SMUD Fleet Electrification Strategy

Board Strategic Development Committee and Special SMUD Board of Directors Meeting

Tuesday, November 30, 2021, scheduled to begin at 5:30 p.m.

Virtual Meeting (online)

Introduction



Our mission; demonstrate leadership



Accelerate

local, regional,
and state
adoption of
electric
transportation



Catalyze

the market for
commercial fleet
vehicles &
equipment



Influence

community
inclusive
economic and
workforce
development

Key SMUD fleet electrification milestones



Hybrid bucket
truck pilot



Transitioned to
renewable diesel



Increased
hybrid bucket
investment



Charging
infrastructure
investment



Electric cable
pullers



100%
sedans electrified



Zeus contract
and fleet
electrification
strategy

2015

2016

2017

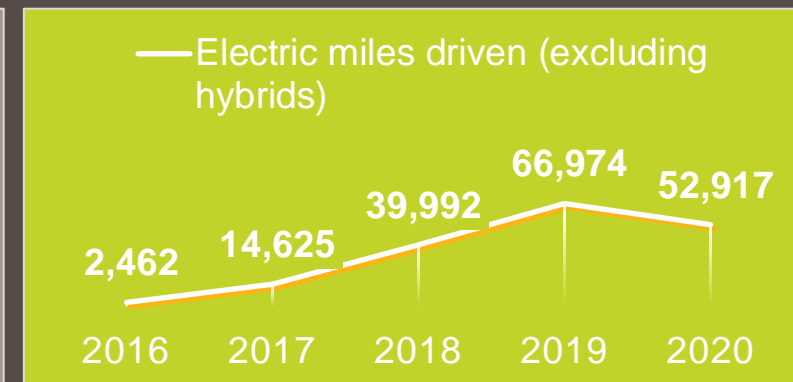
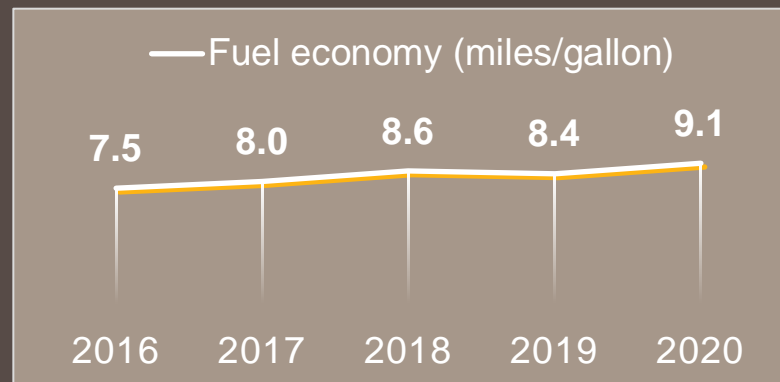
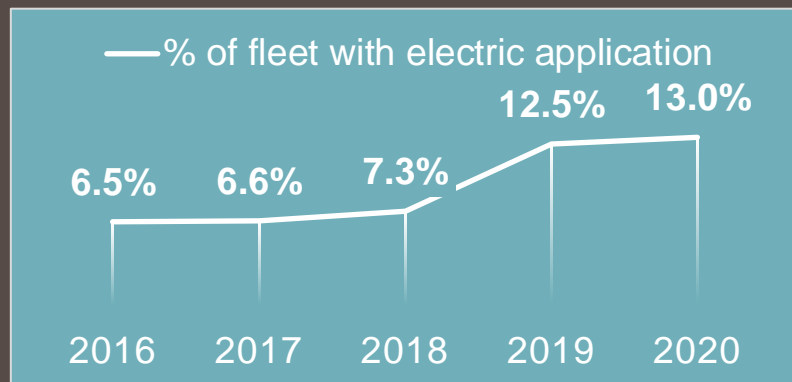
2018

2019

2020

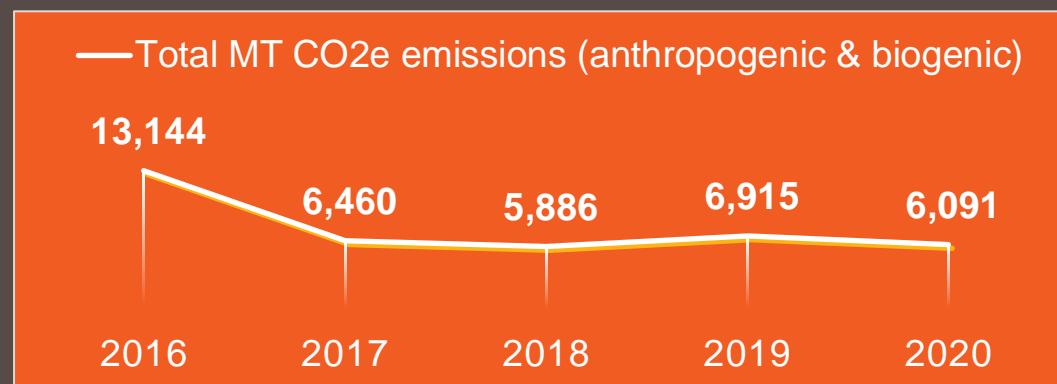
2021

Road to fleet electrification



Transitioned to renewable diesel
Implemented GPS
Started Nissan Leaf pilot

2016



100% sedans electrified

2020

Snapshot of SMUD's operational fleet

927
fleet assets



13%
electrified

5,413,708
miles driven

1% all-electric (52,917)

\$9.4
million

Total Fleet capital spend

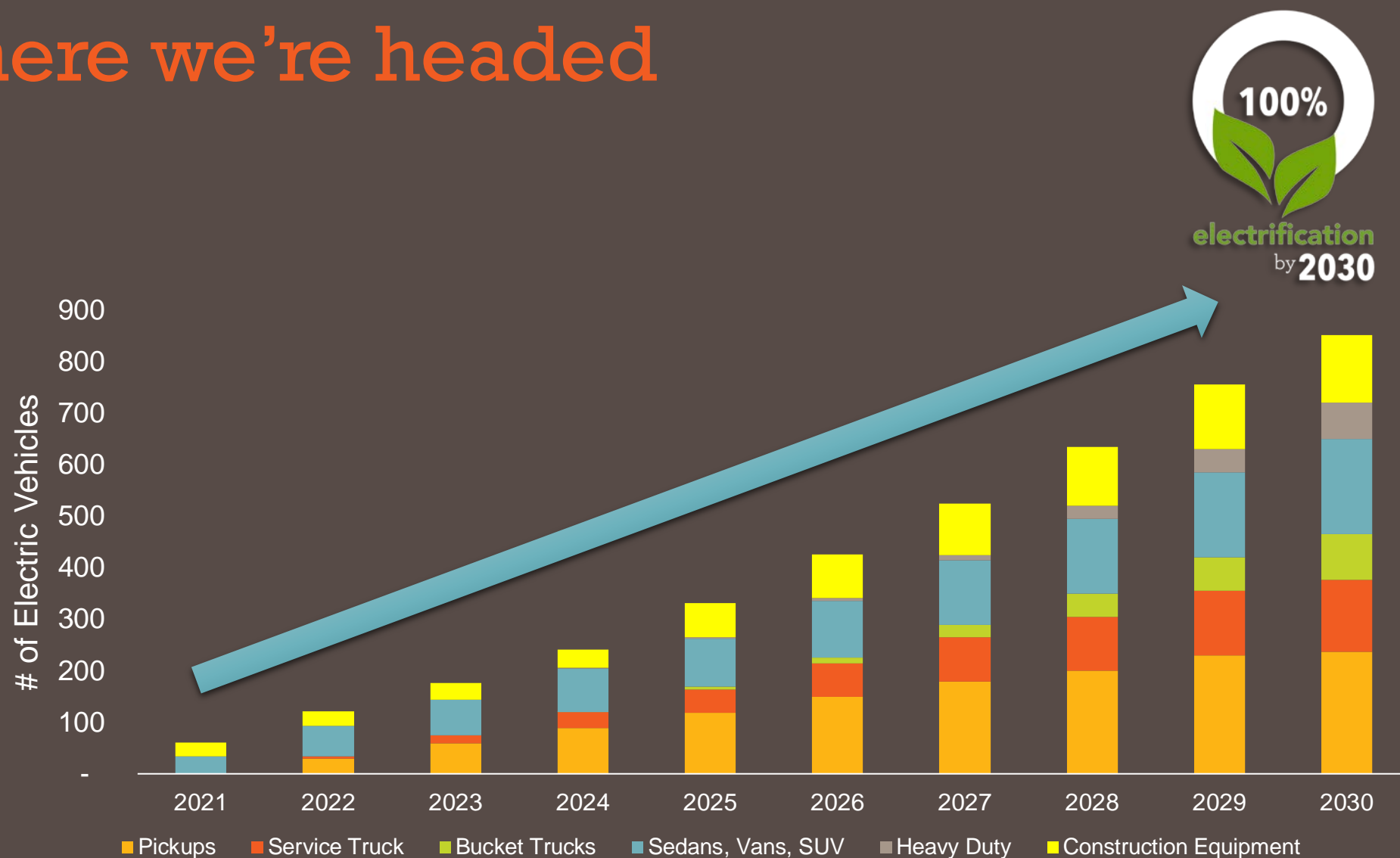
9.1
miles per gallon

Fuel economy

\$.82
cents per mile

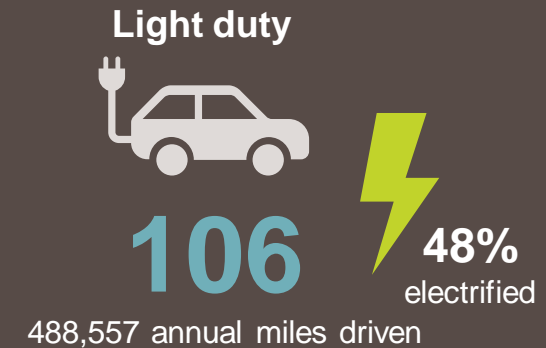
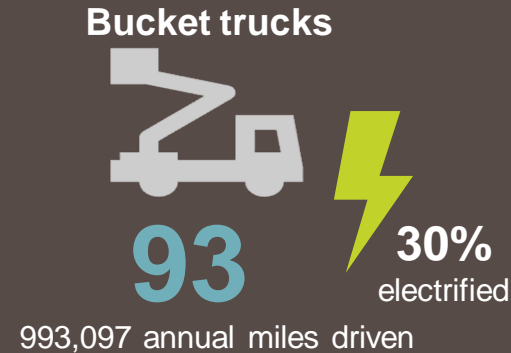
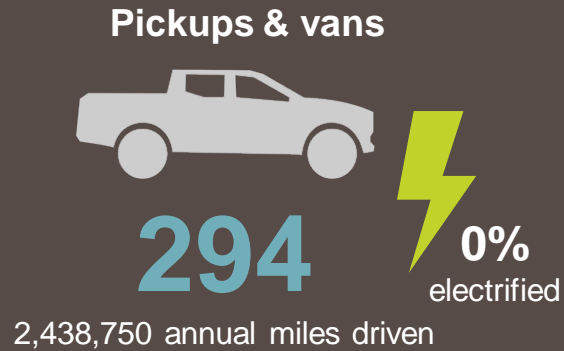
Maintenance cost

Where we're headed



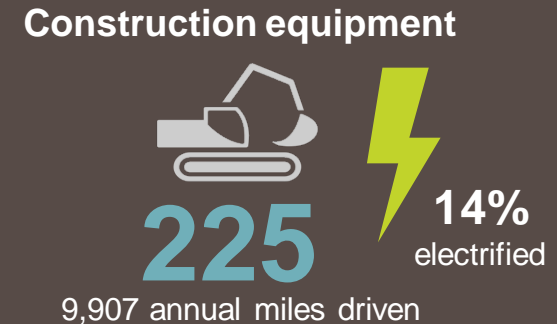
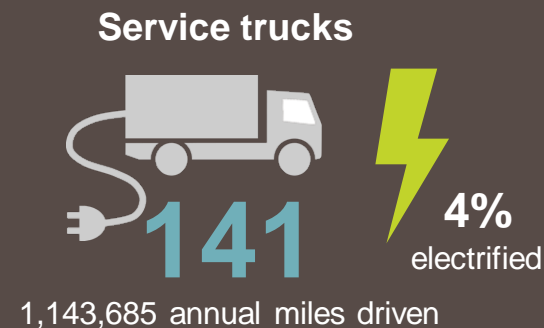
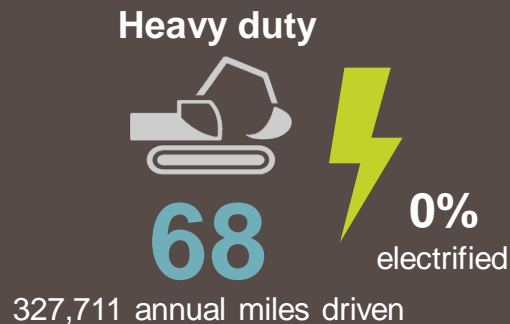
Breakdown of SMUD's operational fleet

Current focus



Current focus = 50% of the fleet that drives 70% of the miles

Future focus



Influences on fleet electrification

Technology

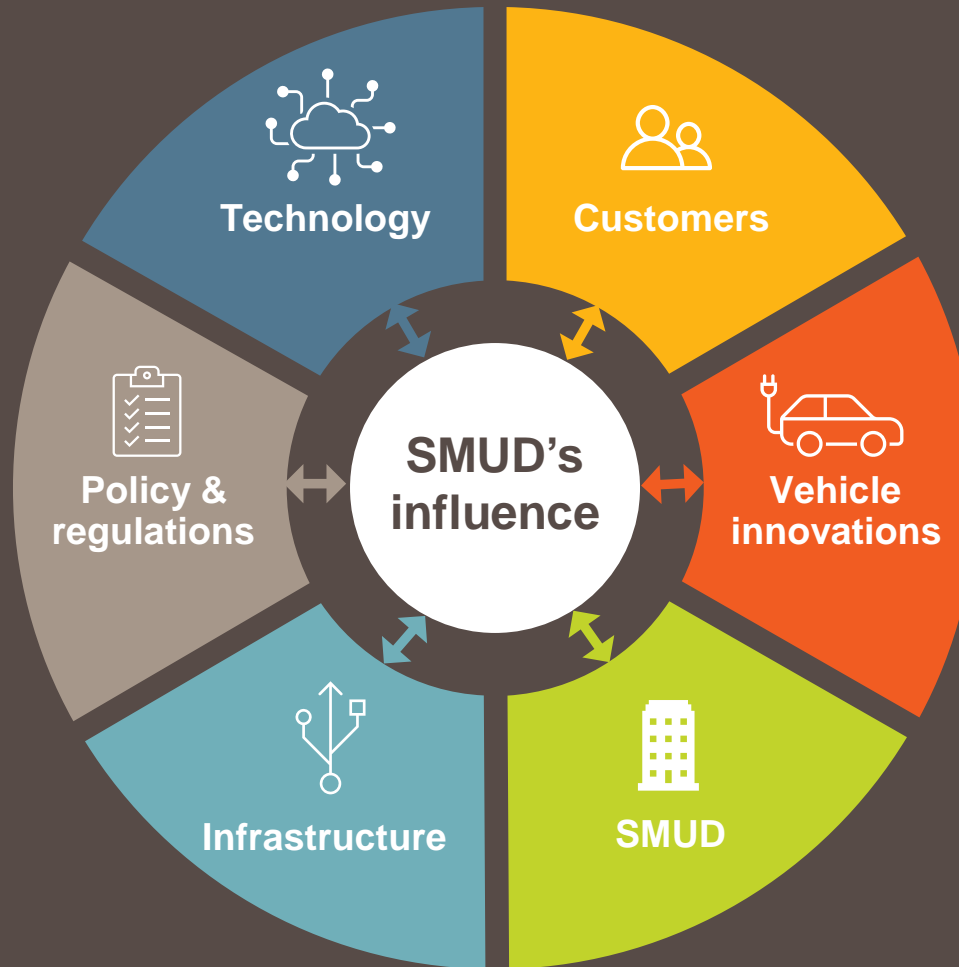
- Vehicle to grid, Vehicle to business
- Software
- Telecommunications
- Hydrogen cell technology

Policy & regulations

- SD-7 environmental policy
- California Air Resource Board regulations
- Rule 2, 6, and 16 – facilities fees, demand charges

Infrastructure

- Equipment
- Power supply
- Destination & on-route charging



Customers

- EV charging rates
- Charging as a service program (advisory, design, construction)
- Incentives

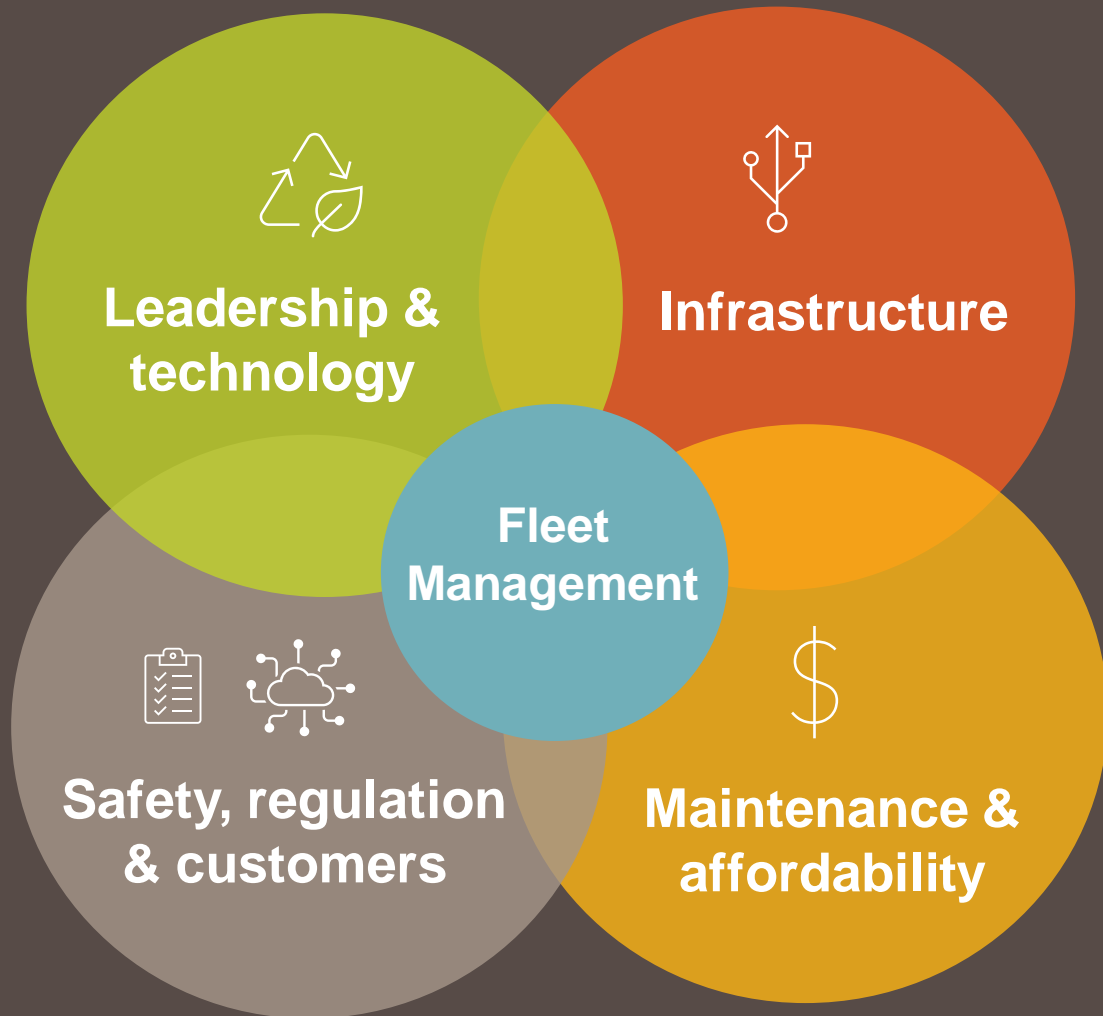
Vehicle innovations

- California Mobility Center
- Original equipment manufacturers
- Zeus electric chassis work trucks
- Vehicle supply

SMUD

- Change management
- Intellectual Property
- Revenue/value
- Equity
- Trust

Commercial fleet perspective



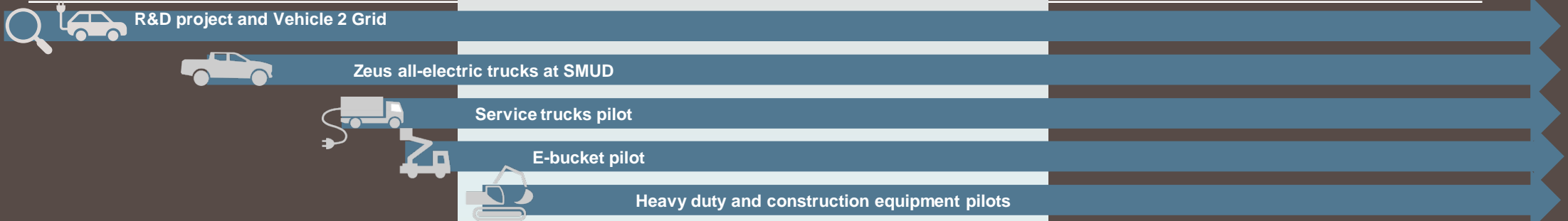
Electrification strategy

2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

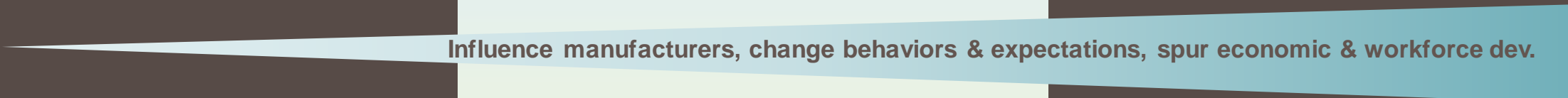
Integrate proven, existing technology



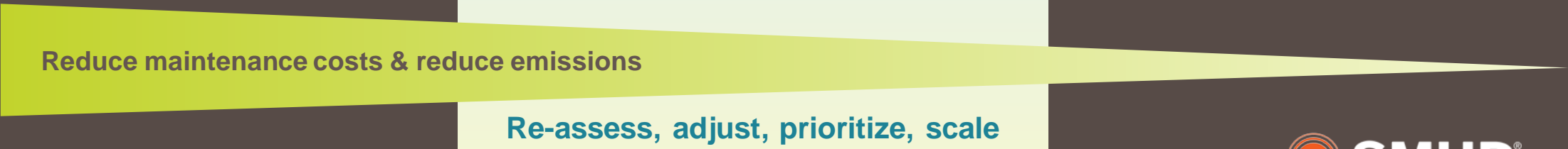
Pilot & adopt new technology under dev.



Partner to influence change & adoption



Benefits



November 30, 2021

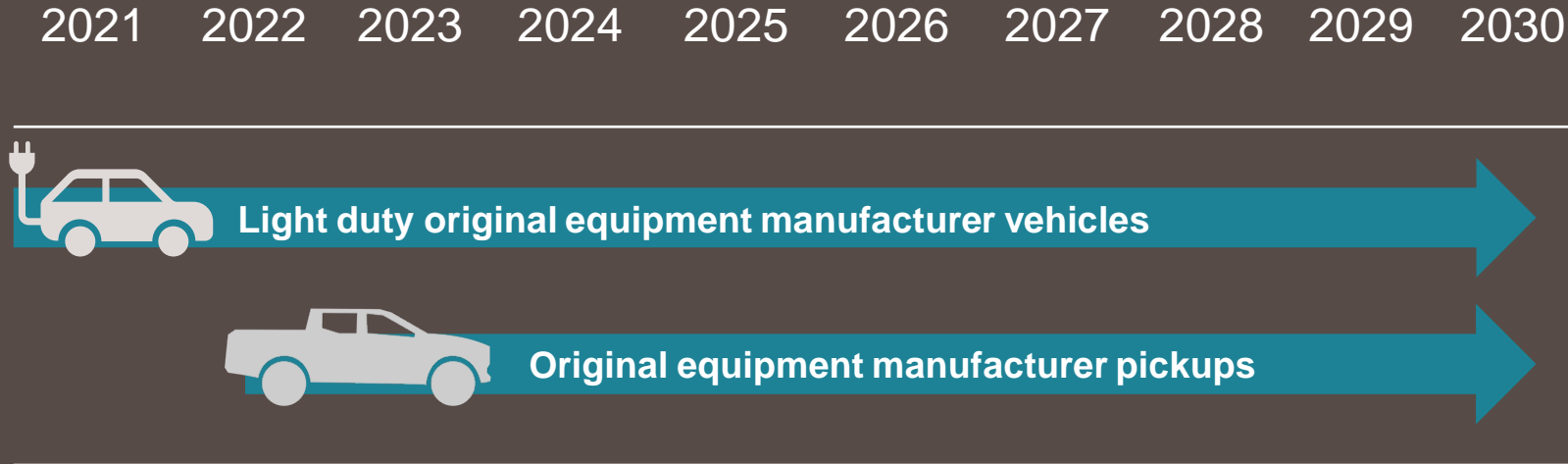
11

Board Strategic Development Committee and Special SMUD Board of Directors Meeting

Public comment may be submitted via e-mail to PublicComment@smud.org.

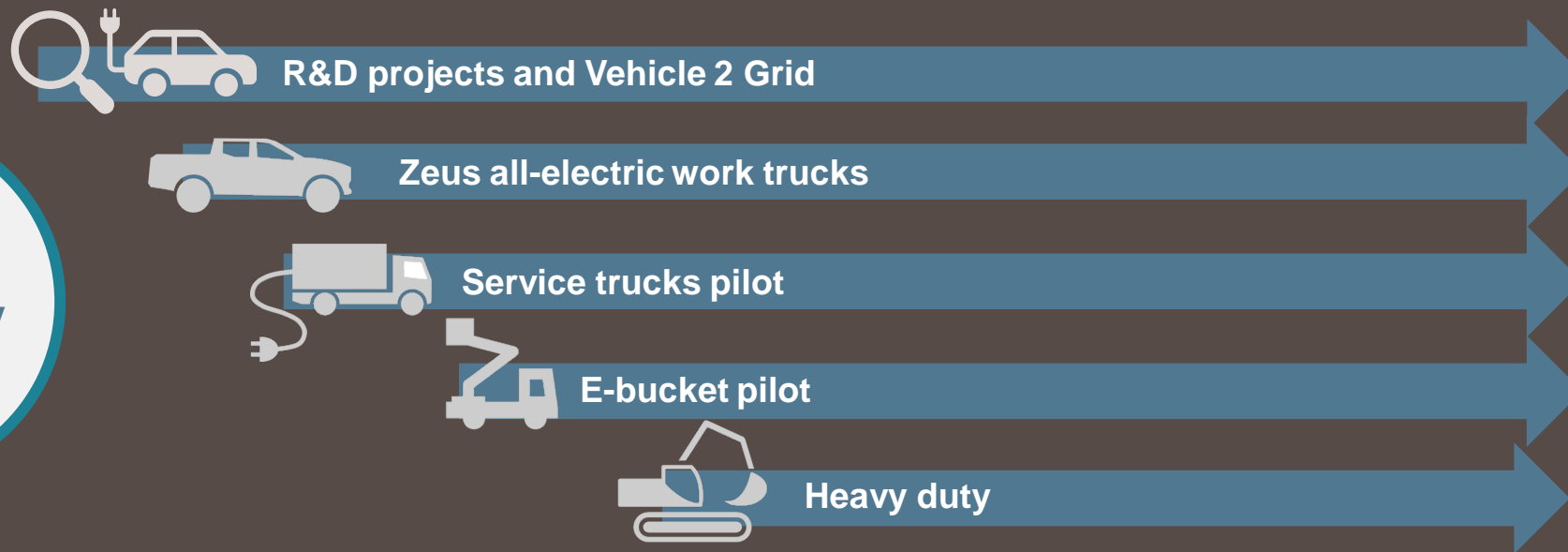


Integrate proven, existing technology



Pilot & adopt new technology under dev.

2021 2022 2023 2024 2025 2026 2027 2028 2029 2030



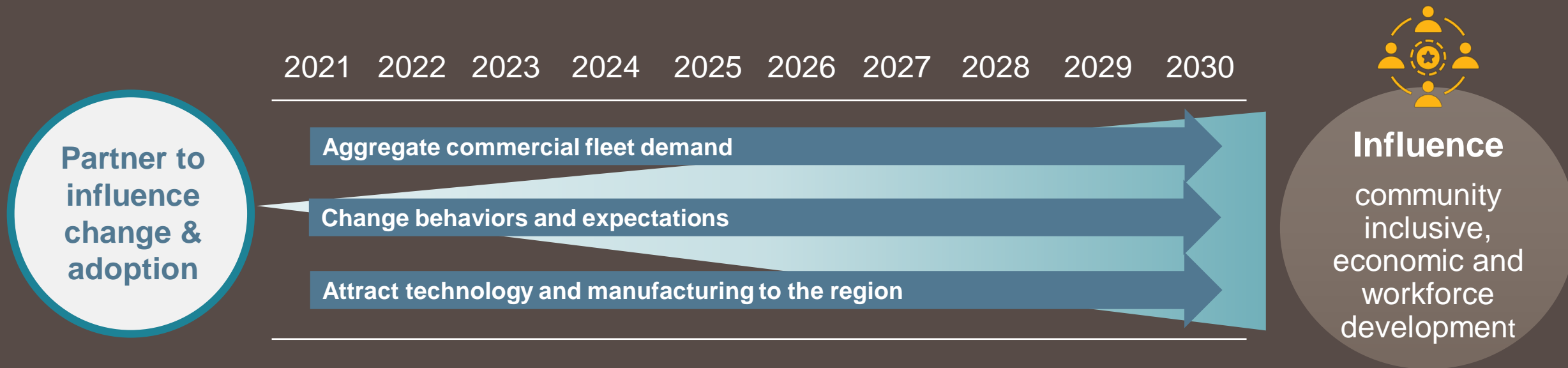
Pilot &
adopt new
technology
under dev.



Catalyze

the market for
commercial
fleet vehicles
& equipment

Partner to influence change & adoption



Estimated investment & benefits

Status quo

- \$100M capital investment (\$10M annually)
- \$41M fleet maintenance (\$4.1M annually)
- \$20M fuel expense (\$2M annually, gasoline and diesel)
- 6,091 MT CO2 emissions annually

Estimated investment

- \$200M estimated investment
- \$20M to \$40M estimated grant funding
- ~\$2M estimated charging infrastructure investment



Benefits

- \$4M reduced maintenance expense through 2030, +20% reduction annually thereafter
- \$9M fuel expense reduction through 2030, ~\$2M reduction annually thereafter
- 26,644 MT CO2 emissions eliminated through 2030
- Demonstrate leadership in electric transportation
- Align w/ SMUD 2030 Zero Carbon Plan

Driving toward a Clean PowerCity

25% total U.S.
GHG emissions

Largest GHG
source in
California

6th most
polluted city in
the country



Catalyze
the market

Accelerate
adoption

Influence
economic &
workforce dev.