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Department of Personnel & Administration

Capital Development Committee
February 4, 2020

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Agenda:

- Budget Request
- EV Infrastructure
- Background
- Vehicle Replacement Cycle
- Telematics
- Change Management

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Electric Vehicle Infrastructure Requests

- 25 Level II Dual-Port EV Charging Stations within the Merrick Parking Garage
  - $840k total cost

- 40 Level II Dual-Port EV Charging Stations throughout Colorado
  - $2 M total request
    - 28 Dual-Port EV Stations at 7 Planned locations: Denver (2), Camp George West, Pueblo, Grand Junction, Central City, Colorado Springs ($1.4 million)
    - 12 Dual-Port EV Stations at locations TBD ($600k)

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Statewide Fleet Infrastructure

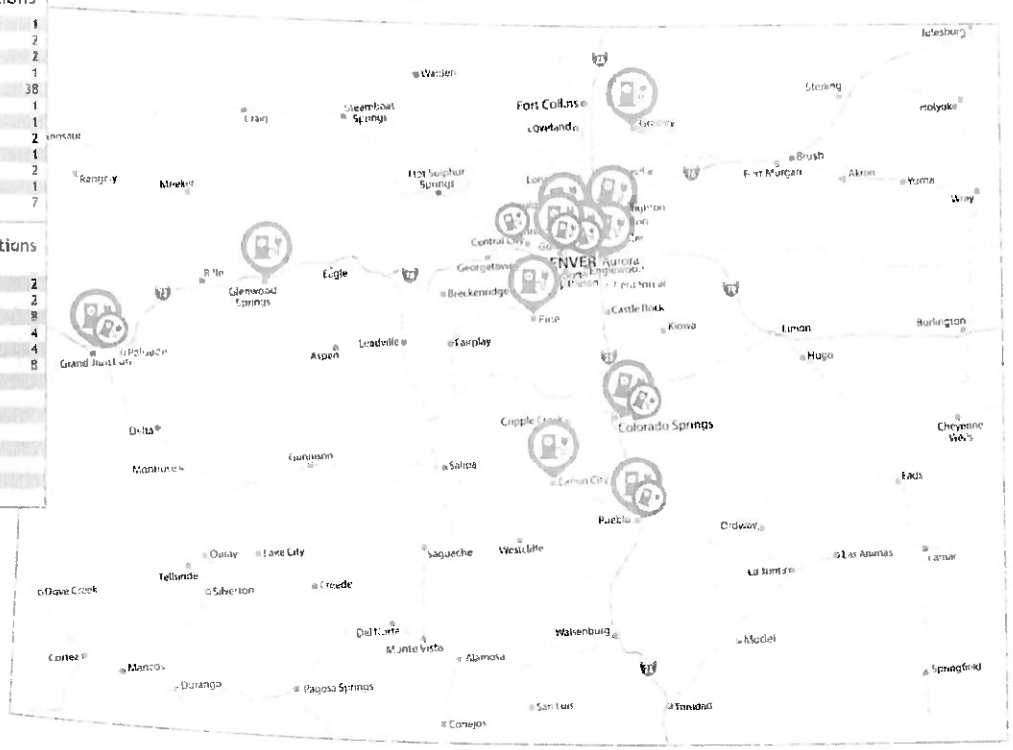
State Fleet Management

Count per City
Current Charging Stations

Aurora	1
Broomfield	2
Canon City	2
Colorado Springs	1
Denver	38
Firestone	1
Glenwood Springs	1
Golden	2
Grand Junction	1
Greeley	2
Pine	1
Pueblo	7

Requested Charging Stations FY20/21

Central City	2
Colorado Springs	2
Denver	8
Golden	4
Grand Junction	4
Pueblo	8



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Transition to Electric Vehicles

- Executive Orders
  - D2017-015, Colorado Electric Vehicle Plan
  - B2019-002 Zero Emission Vehicle Adoption by 2025
  - D2019-016 Amending E.O. Concerning the Greening of State Government

- Electric Vehicle Purchases
  - FY19 - 26 EVs purchased
  - FY20 - anticipate 60-70 EVs
  - FY21 - seeking budget for 127 EVs (21 plug-in, 105 plug-in hybrids)

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Total Cost of Ownership: Investing in EVs

Cost Metrics

- Original purchase price with interest
- Fuel/Energy cost
- Maintenance cost
- Social cost of carbon (SCC)
- Vehicle residual values
- Projected life of vehicle

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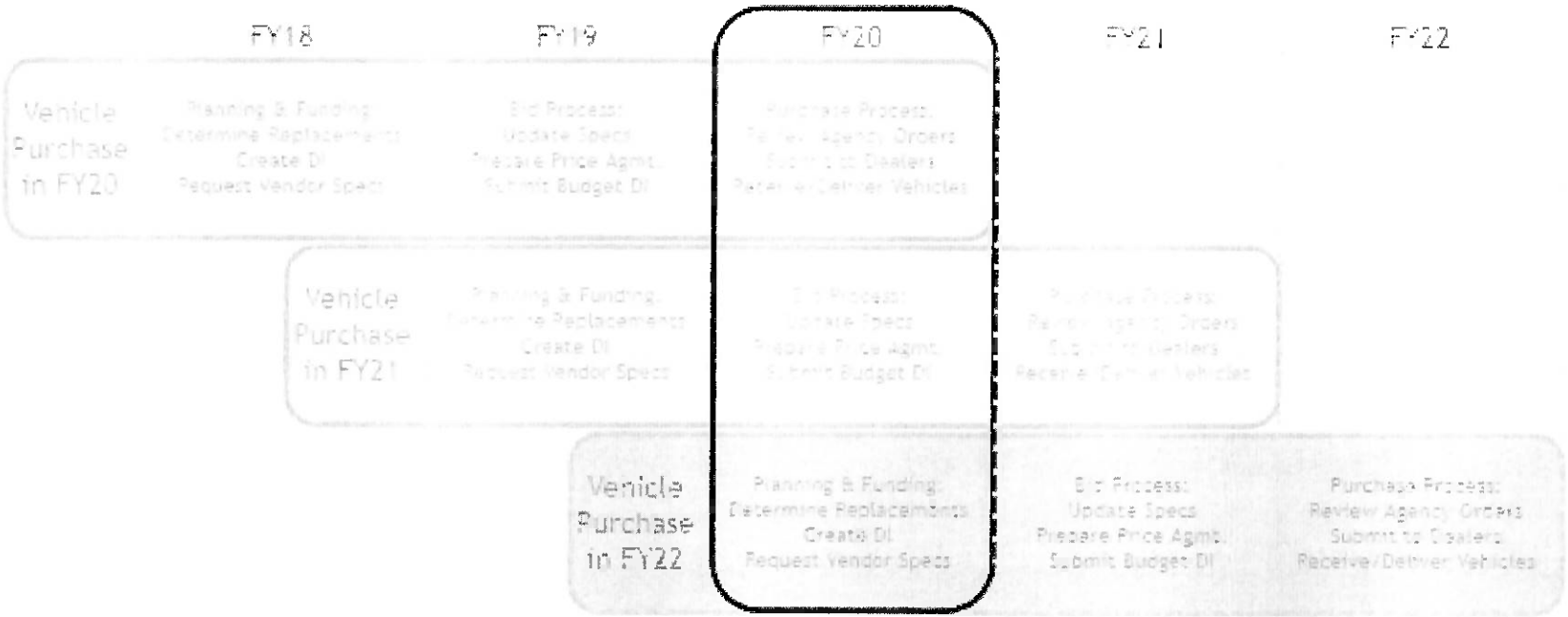
Fleet Vehicle Replacement Cycle



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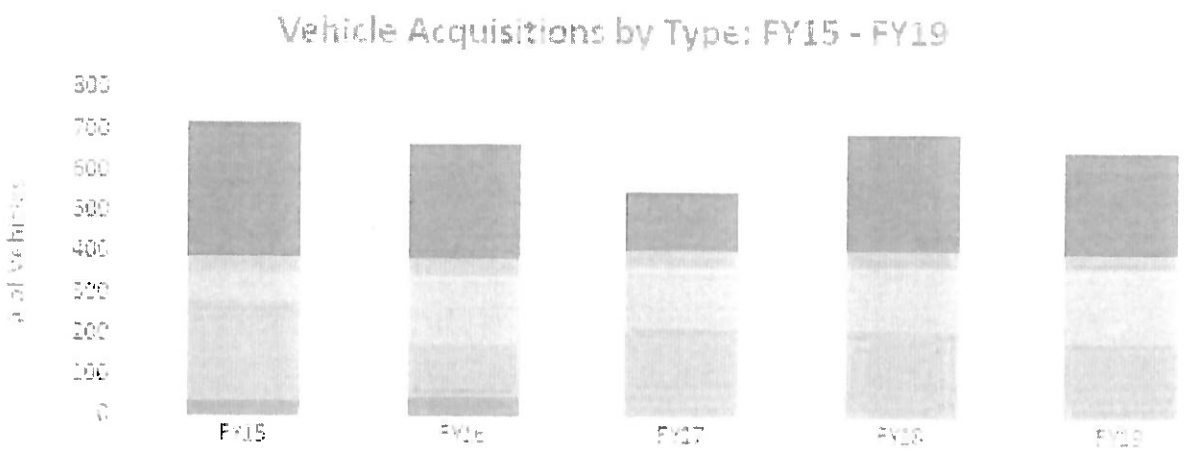
Vehicle Counts by Type



	FY15	FY16	FY17	FY18	FY19
Total	721	665	554	694	633
Gasoline	331	277	143	235	250
Diesel	40	44	46	30	28
BEV	0	1	0	13	8
PHEV	0	9	5	7	17
Hybrid	59	155	136	142	161
E&3	246	123	221	215	169
CNG	35	48	0	2	0

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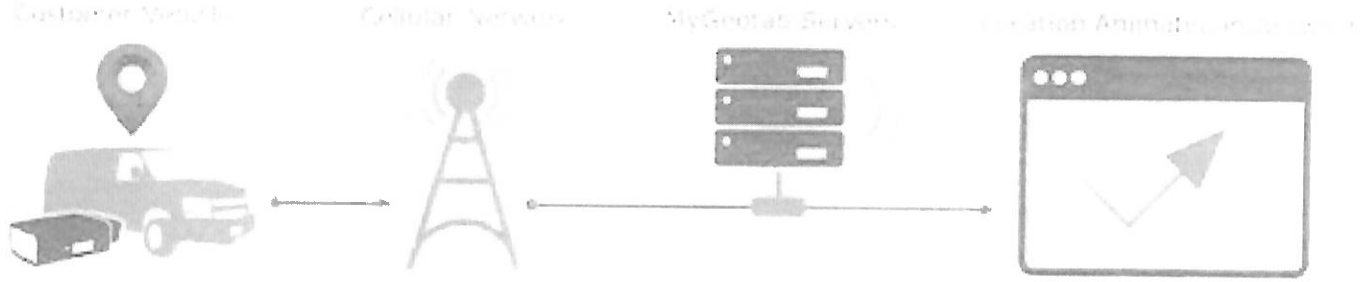
Telematics



- Reduces State's carbon footprint through efficiency reports
- Assists in the transition to fully electrified fleet
- Verifies that vehicles are being used as intended
- Uses location-based management to link supply to demand
- Mitigates against long-term liability from poor driving
- State Fleet Management oversees 1,372 vehicles with telematics installed

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Change Management

- **Knowing your customer**
  - Convene agency fleet managers monthly
  - Convene subcommittee on petroleum reduction
- **Making sure users have accurate information**
  - Provide FleetDASH dashboard monthly
  - Use Fleet Information Management System and peripheral support data systems
  - Use centrally generated energy consumption reports
  - Training for agencies
- **Incentives**
  - Reimbursement for operations that spend fuel dollars on alternative fuels
  - Sponsor pilot emerging technologies

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Thank You & Questions

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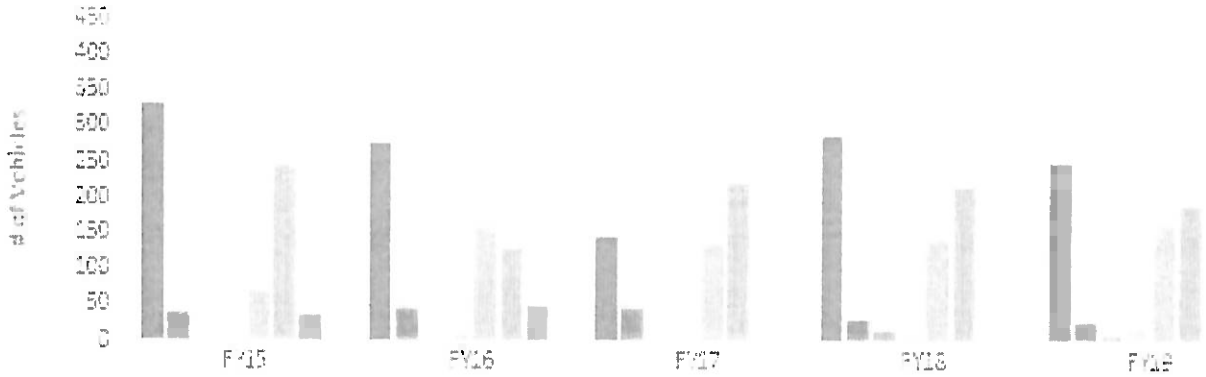
Vehicle Counts by Type

Vehicle Acquisitions by Type: FY15 - FY19



	FY15	FY16	FY17	FY18	FY19
Gasoline	551	377	143	395	250
Diesel	40	41	45	30	28
BEV	0	1	0	13	3
PHEV	0	9	5	7	17
Hybrid	59	159	156	142	161
E85	146	129	221	215	169
CNG	55	48	0	2	0
Total	721	665	574	604	633

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