

LIFELINES COUNCIL

Meeting 42: June 18, 2024

Agenda

Douglas Legg, *Deputy City Administrator, City Administrator's Office*

Brian Strong, *Director, Office of Resilience and Capital Planning*

1. Call to Order and Agenda Review

5 minutes

2. Introductions and Round-table: Fleet description and expected uses in post-disaster recovery

30 minutes

3. Emergency Fuel Operations

Nick Majeski, *Emergency Response Manager, Office of the City Administrator*

5 minutes

3. City of San Francisco Fleet

Don Jones, *Director, Fleet Division*

Heather Green, *Office of the City Administrator*

15 minutes

5. Discussion

35 minutes

Emergency Fuel Operations

Nick Majeski, *Emergency Response Manager*
City Administrator's Office

Emergency Fuel Operations

Current Snapshot

- Gasoline – most City vehicles
- Three City operated gas stations maintained by CAO Central Shops
- MTA (MUNI), SFFD and SFO fuel their vehicles on their properties
- All fuel is brought into SF via vendor provided tanker trucks from Martinez or Richmond

2019-2024 Fuel Working Group

- Conducted extensive planning and discussions about post-earthquake fuel response along with a Priority Fueling map, two exercises and justified the need for a City owned tanker truck



Priority Fueling Map

Mitigation & External Support

- Central Shops has one 2000 gallon tanker truck which can siphon, transport and dispense both gasoline and diesel.
- SFO is in the process of procuring a similar model.
- SFFD have tanker trucks for their fleet to support prolonged field operations. Other City agencies have small technical vehicles that can provide small amounts of vehicle gas.
- After a major disruption, the State will set up a Fuel Task Force with the California Energy Commission to decide where the existing fuel will be sent.
- The National Guard and FEMA will support counties with fuel, but it will likely be at least a week before supplies and infrastructure are set up.



Future Emergency Fuel Operations with Electrification

- Lots of critical life safety facilities will need electrical/infrastructure upgrades if generators will also be replaced:
 - SFFD stations to replace both vehicle fuel dispensing and existing diesel generators
 - Hospitals are required to have a generator fuel tank which will last 72 hours.
 - 911 call centers, Medical Examiner's Office, jails and 800 MHz radio repeater sites all currently have large generators
- Solar panels and battery storage are years away from being able to capture and store enough electricity to run a building.
 - Example: The panels on City Hall provide approximately 5% of daily usage.



Lifelines Planning: City of San Francisco's Fleet

Don Jones, Director, Fleet Division

Heather Green, Office of the City Administrator

Fleet & Emergency Response

Near-Term

- Understand fleet composition and right-size
- Continue to plan for gas and diesel needs in emergency response
- Incorporate fleet infrastructure needs into 10-Year Capital Plan
- Build charging infrastructure where grid allows
- Comply with state regulations

Longer-Term

- Understand expected electric and H2 demand for fully ZEV fleet
- Promote fleet pooling
- Pursue funding sources to support ZEV municipal fleet charging/fueling needs
- Build resilience with equipment and planning for when power goes out

Regulatory Environment for CCSF Zero Emissions Vehicle (ZEV) Conversion

▷ **Local: Healthy Air and Clean Transportation Ordinance (HACTO)**

- Chapter 4 of the San Francisco Environment Code
- Light-duty passenger fleet entirely zero-emission by 12/31/22

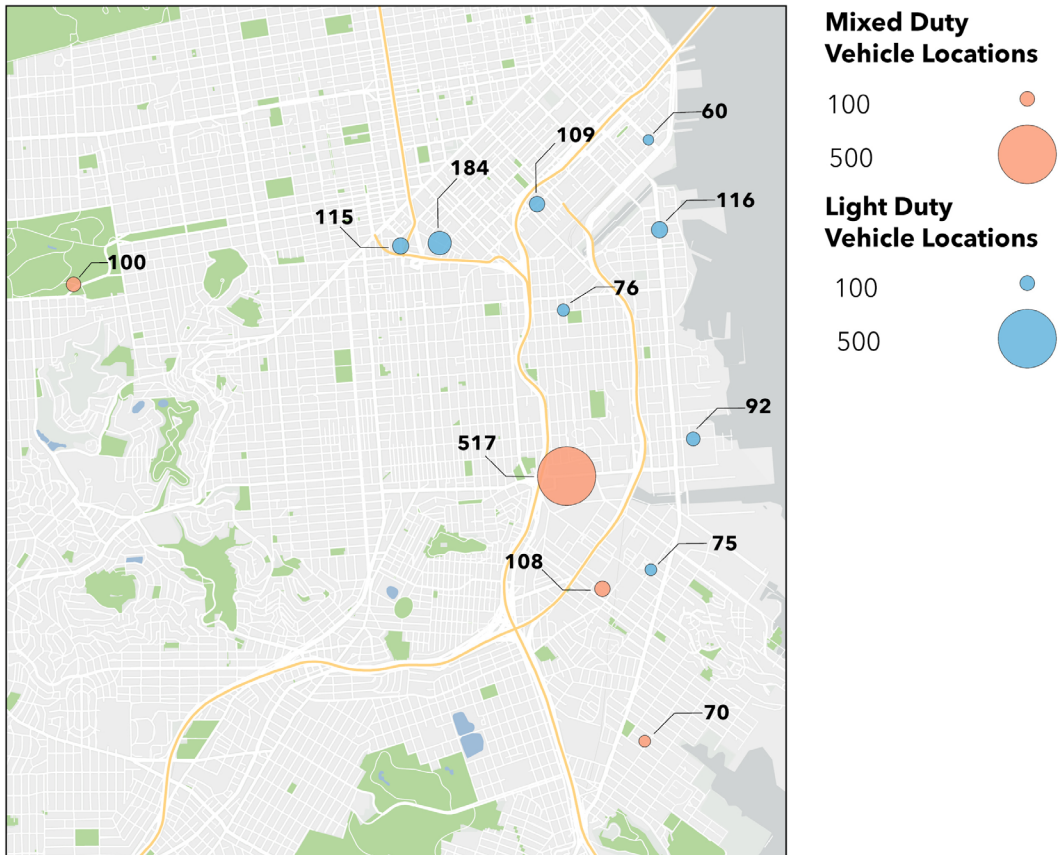
▷ **State: Executive Order N-79-20**

- Directs action to eliminate carbon emissions from the transportation sector
- Mandates end of non-ZEV passenger vehicles in CA by start of 2035

▷ **State: CARB Advanced Clean Fleets Regulation**

- Regulates medium- and heavy-duty vehicles (MHDVs)
- 50% of MHDV purchases must be ZEV starting 01/01/24; 100% starting 01/01/27

Major Fleet Domiciles inside City Limits



Large Municipal Fleet Vehicle Domicile Locations

Light-Duty domicile info provided by Fleet Managers February 2024
 Other domicile info provided by Fleet Manager to ENV Fall 2023

DPW Yard	517
DPW & DBI – 255 12th St.	184
Public Safety Building	116
HSA HQ	115
Hall of Justice	109
PUC City Distribution Division (moving)	108
REC Golden Gate Park Shop	100
MTA Muni Metro East	92
SFPD	76
PUC – SE Wastewater Treatment	75
MTA Paint & Sign Shop	70
Fire HQ	60



Citywide Fleet Current State: 8290 Vehicles Total

General Purpose Light Duty Vehicles: 1828

Sedans: 791

Pickups: 570

SUVs: 191

Vans: 276

Public Safety Vehicles: 1858

Fire: 478

Police: 1101

Other: 279

Non-Public Safety Equipment: 4604

Sweepers: 96

Specialty
Construction: 245

Pickups: 1298

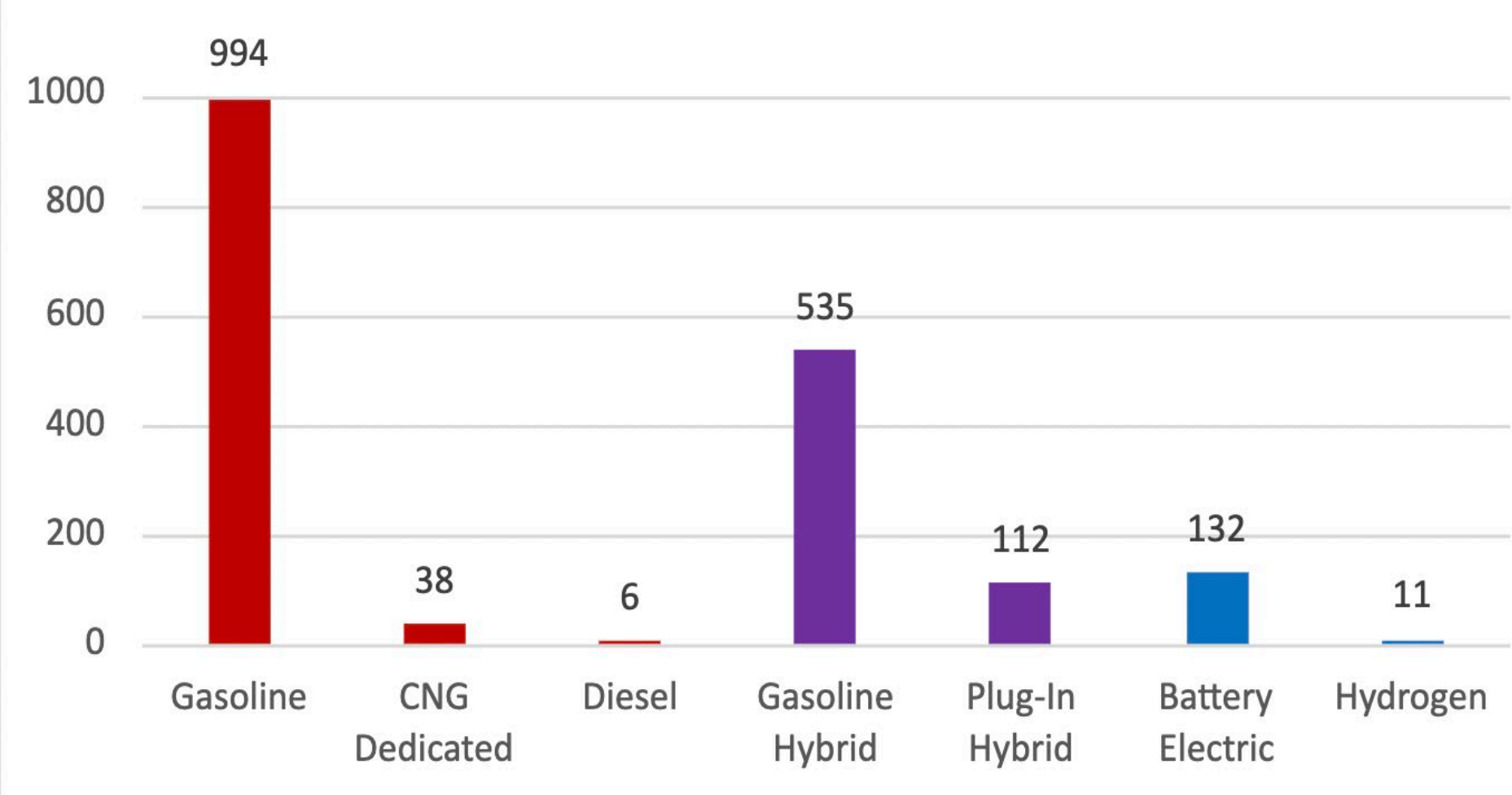
Vans: 266

Other: 2720

Citywide Fleet Breakdown

Public Safety	1858
PUC	1664
MTA	1183
REC	962
DPW	912
SFO (excl. SFO Police)	704
Port	210
Other City Departments	797
Grand Total	8290

General Purpose Light-Duty Fleet by Fuel Type



Near-Term Approach to ZEV Conversion

- ▷ Maximize ZEV conversion within available resources
- ▷ Minimize ZEV waivers granted

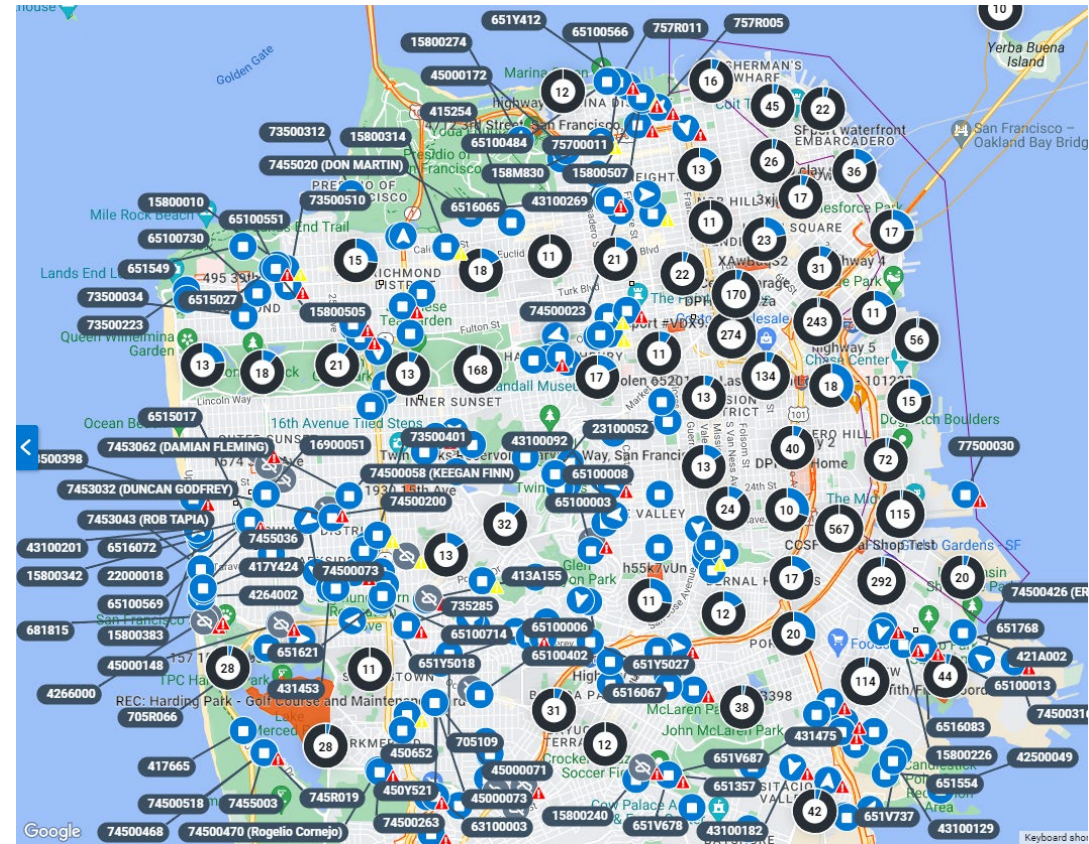
- ▷ Build dedicated City fleet charging infrastructure to be ready for ZEVs
 - Currently 192 City-owned L2 charging stations (Fleet Manager data February 2024)
 - 1259 chargers total in SF (US Dept of Energy data May 1, 2024)
 - Grant application submitted to CEC for 400+ more Level 2 chargers

Risk Mitigation & Planning for ZEV Future

- ▷ Ongoing reminders/training with fleet managers about crisis response roles and expectations
- ▷ Manual option for assigning/coordinating vehicles if power/internet/telematics goes out
- ▷ Understanding electric capacity needs, hydrogen fueling possibilities
- ▷ Detailed planning with technical consultant
 - Grant received April 2024 from MTC for municipal fleet planning
- ▷ Generators, and exploring electric mobile charging and battery storage
 - Redundancy is a known need, need to prepare for the unexpected

Fleet Telematics Data

- ▶ Nearly 4,500 vehicles with telematics info in (internal) GeoTab system maintained by Fleet
 - Public safety not yet, aiming for this year
- ▶ Location information
 - Live map searchable by asset number
 - Full data set available for download for deployment direction
- ▶ Shows fuel/charge level
- ▶ Safety, speeding, dangerous driving info



Challenges for ZEV Conversion & Future Emergency Response

- ▷ EV charging infrastructure (for now) less ubiquitous than gas fueling
- ▷ Long timeline to suitable ZEV medium/heavy-duty models
- ▷ SF's only public hydrogen fueling stations just closed, future uncertain
- ▷ Need to better understand which parts of the SF grid are most resilient / where to plan for future emergency charging functions (Downtown Network?)
- ▷ Maintaining regular operational practice of keeping vehicles charged up

Questions?

5 minutes

Discussion

25 minutes

Discussion Question 1

How is your organization investing in present and future fuel/electric charging redundancy given the transition toward zero-emission vehicles?

Discussion Question 2

What should we (lifelines providers) be planning for when we build and upgrade vehicle yards to ensure our fleets can be powered after a disaster?

For example:

- ▷ Battery storage capacity?
- ▷ Onsite solar generation?
- ▷ More charging stations?
- ▷ Alternate fuel sources?

Discussion Question 3

What information or data is needed to support your organization's planning for redundancy to power its fleet?

Adjourn