

# **Current Fleet Composition & Plans for the Future**

**May 18, 2021**

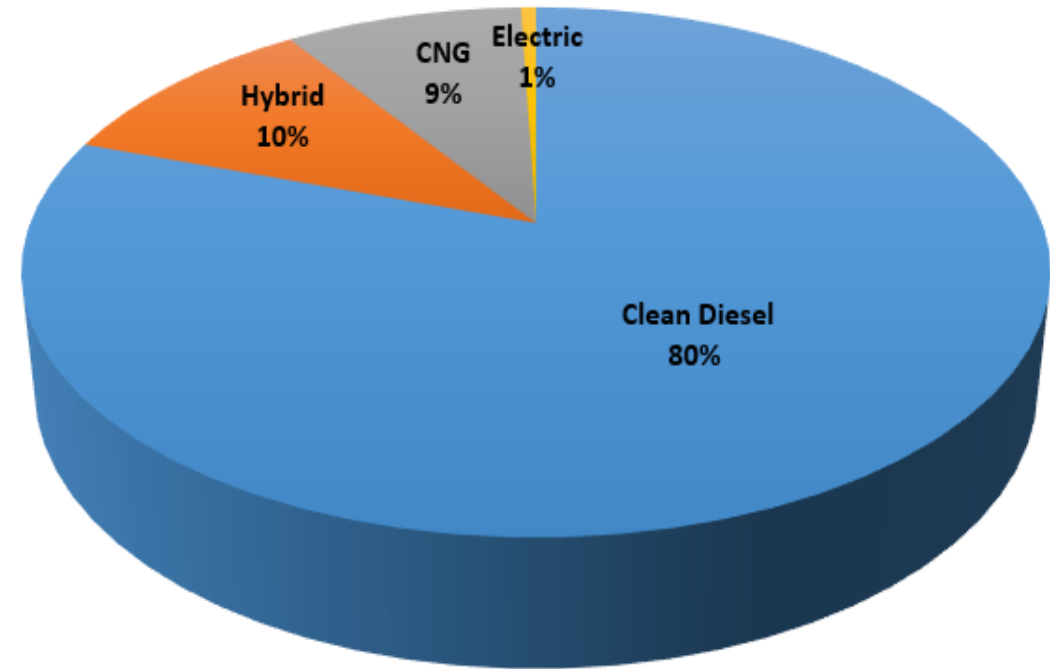


# 2021 Bus Fleet Composition

PROPULSION TYPE	QUANTITY
CLEAN DIESEL	423
HYBRID	54
CNG	47
ELECTRIC	3
<b>TOTAL</b>	<b>527</b>

- Hybrid
  - 45 (Timpanogos Service Unit)
  - 9 (Mt. Ogden Service Unit)
- CNG
  - 47 (Salt Lake Service Unit)
- Battery Electric
  - 3 (Salt Lake Service Unit)

2021 BUS FLEET



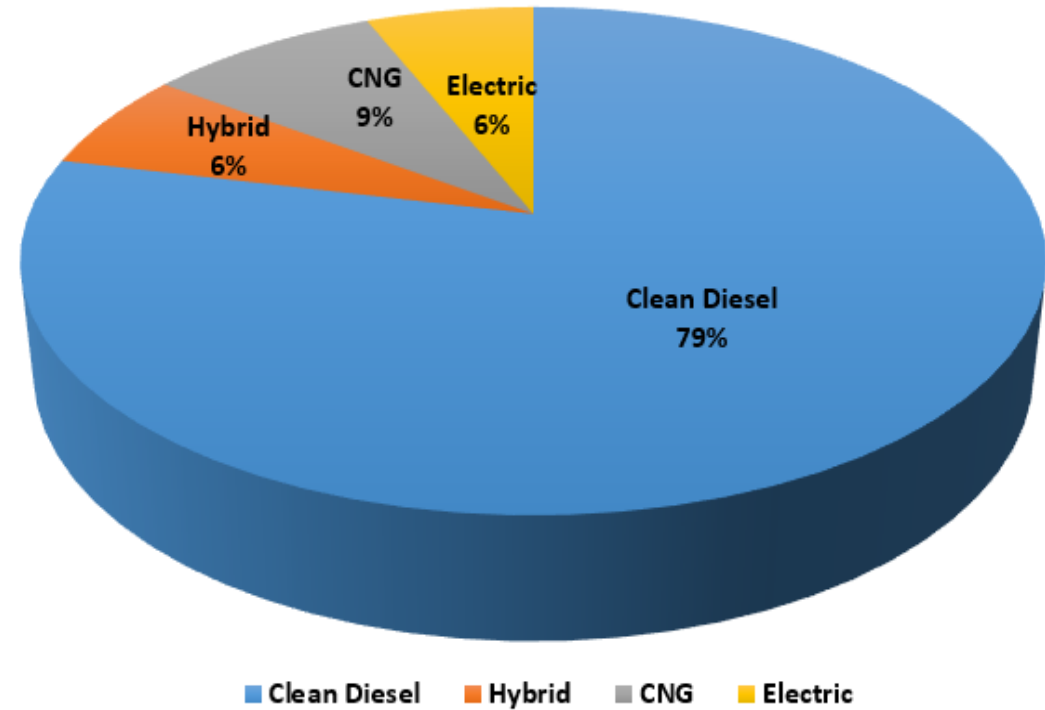
■ Clean Diesel ■ Hybrid ■ CNG ■ Electric



# 2023 Bus Fleet Composition

## 2023 BUS FLEET

PROPULSION TYPE	QUANTITY
CLEAN DIESEL	423
HYBRID	34
CNG	47
ELECTRIC	34
<b>TOTAL</b>	<b>538</b>



- Hybrid
  - 25 (Timpanogos Service Unit)
  - 9 (Mt. Ogden Service Unit)
- CNG
  - 47 (Salt Lake Service Unit)
- Battery Electric
  - 23 (Salt Lake Service Unit)
  - 11 (Mt. Ogden Service Unit)



# Utah Transit Authority Fleet Composition Strategy

- Currently developing a data-driven mixed bus fleet strategy that supports UTA's mission
- Serve as a guide for future vehicle procurement and facilities plans
- Recommendations anticipated in August 2021 for inclusion in 5-year capital plan

## UTA's Mission Statement:

Provide integrated mobility solutions to service life's connections, improve public health and enhance quality of life



# Strategy Development Inputs - Areas of Analysis

- Air quality benefits
- Current fleet mix & replacement schedule
- Vehicle compatibility with service plan
- Current infrastructure capabilities & future needs
- Full life cycle vehicle cost (purchase & major maintenance)
- Full cycle emissions (well to tank & tank to wheels)
- Fuel efficiency & cost
- Resources per fleet
- Vehicle reliability
- Technological innovations (electric, CNG, & hydrogen fuel cell)
- National trends (other agencies, climate)



## Bus performance (MPG) Diesel, CNG, Battery

	Clean Diesel (MPG)	CNG (MPG equivalent)	Battery (MPG equivalent)
UTA	5.10	4.06	13.90*
National average	4.60	3.42	17.08
Comparison	10.9 %	18.7 %	(18.6) %

1. UTA performance is from 2020
2. National averages are from 2018 NTD

- UTA buses (diesel & CNG) operate more efficiently due to eco driving practices and anti idling policy implementation
- \*UTA operates the battery buses on the Route 2 to the University of Utah which has a significant grade change. Hill climbing uses extra energy.



# Bus Emissions Savings Benefits

- In 2017, from those who rode transit instead of driving a car, UTA produced a net savings of over 1,100 tons of criteria air pollutants (NO<sub>x</sub>, SO<sub>x</sub>, CO, HC, PM) across the Wasatch Front
- With UTA's newer and cleaner buses, it only takes 1.26 passengers to offset the emissions of that bus!



# Questions?

