

2021 FLEET MANAGEMENT PLAN & T.A.M. PLAN

PRESENTATION TO GCTD BOARD OF DIRECTORS

March 3, 2021



Fleet Replacement Needs

- Non-Revenue Fleet
- Paratransit Fleet
- Fixed-Route Fleet
- Contingency Fleet (3 Retired Buses)

Zero Emission - Innovative Clean Transit Rule (ICT)

- Hydrogen VS Electric
- Funding Needs

Fixed Route Fleet



FLEET NEEDS: By 2025, 31 buses will reach or surpass the Useful Life Benchmark (ULB).

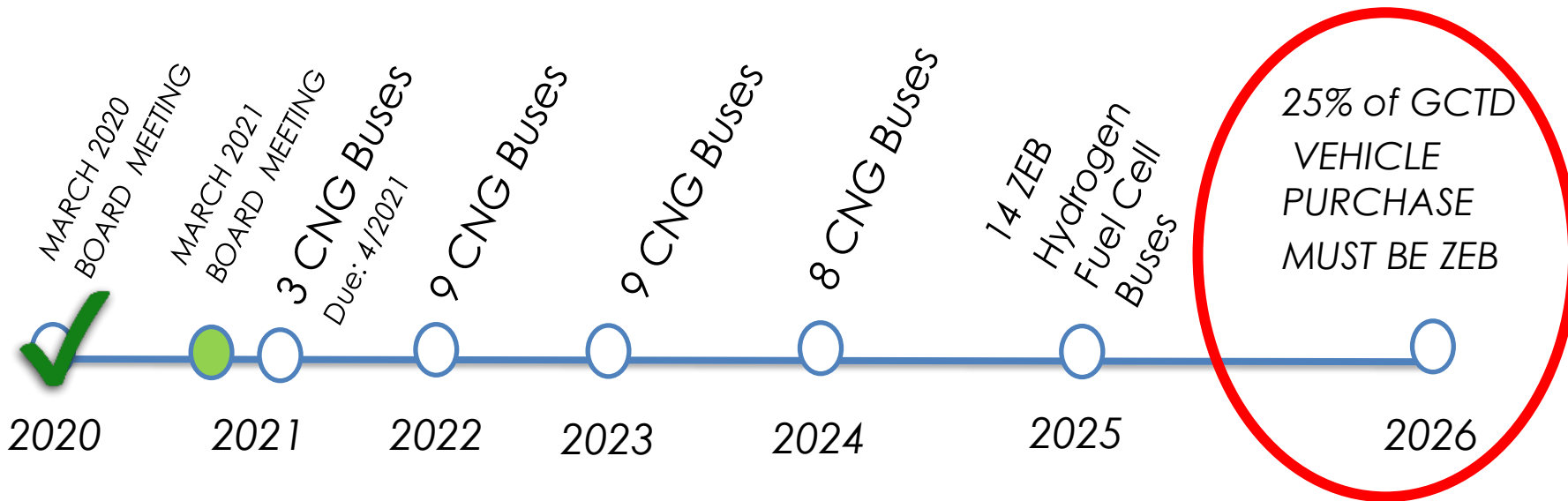
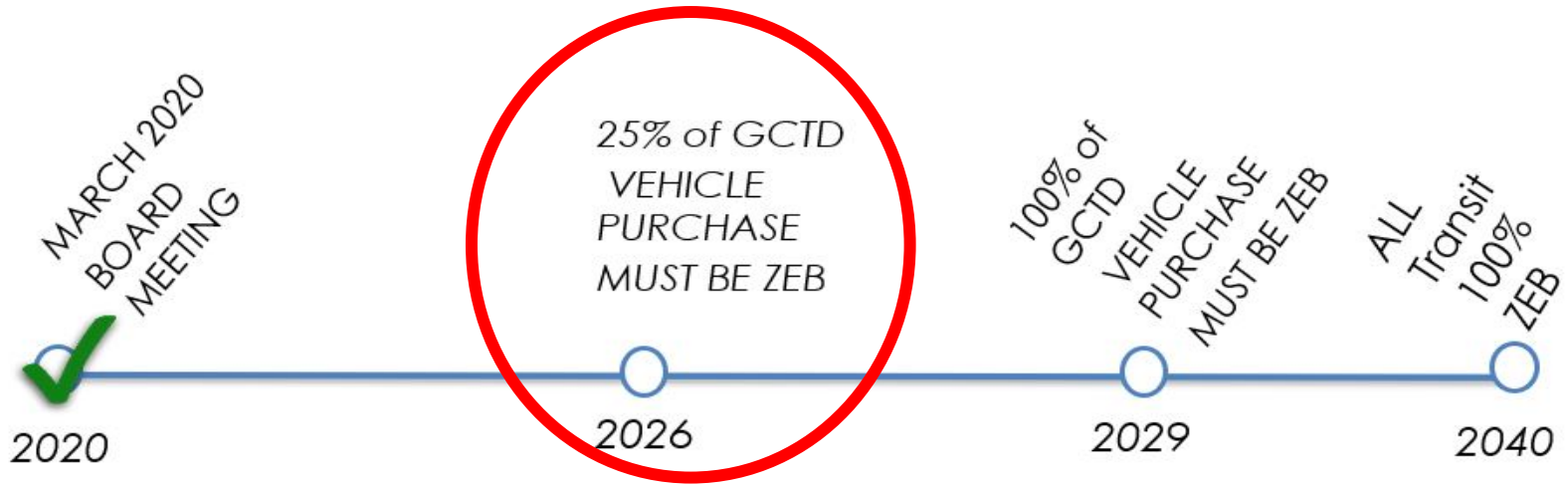
GCTD Replacement Plan:

- **3 CNG Buses** **2020-21**
- **9 CNG Buses** **2021-22**

- **9 CNG Buses** **2022-23**
- **8 CNG Buses** **2023-24**
- **14 Zero-Emission** **2024-25**
(Hydrogen Fuel Cell / Battery Electric Buses & Infrastructure)



Innovative Clean Transit (ICT) Regulation & Progress on GCTD Fleet Replacement



L9N CNG Near-Zero Engines



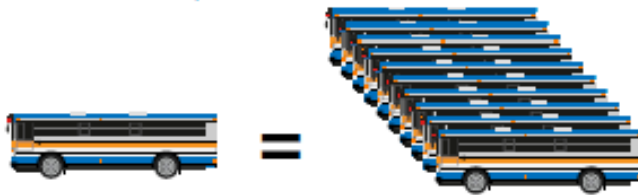
New exhaust system burns hotter = 9 x better emissions

L9N™

Reduced Emissions from Trucks and Buses

- Reduces smog forming NOx emissions by 90% vs. EPA NOx Standard
 - NOx emissions from TEN L9N powered vehicles = emissions from ONE 2010 certified vehicle
 - Clean technology for Clean Air Act Ozone Nonattainment areas
- Reduces Greenhouse Gas emissions
- Will be certified to the US Environmental Protection Agency (EPA) and California Air Resources Board (ARB) Optional Low NOx Emissions standards of 0.02 g/bhp-hr.

NOx Emissions Reduction Impact



NOx emissions from ONE bus with a 2010 certified engine

NOx emissions from TEN buses with the L9N engine

With the 5 New Gillig in 2019, 14 Repower buses completed in 2020, 3 New Gillig in 2021, 9 New Gillig in 2022....

Total of 31 Near-Zero Engines



Performance and efficiency matches the current ISL G engine

Improves air quality and lowers noise pollution

Electric Nissan Leaf



- **(9) 2020 Nissan Leaf**
- 10 charging stations. Preparation for future fleet needs.
- Existing conduit from facility build reduced cost tremendously.
- Reduction in CO₂ and noise pollution.



TRANSIT ASSET MANAGEMENT PLAN

Submitted to F.T.A.

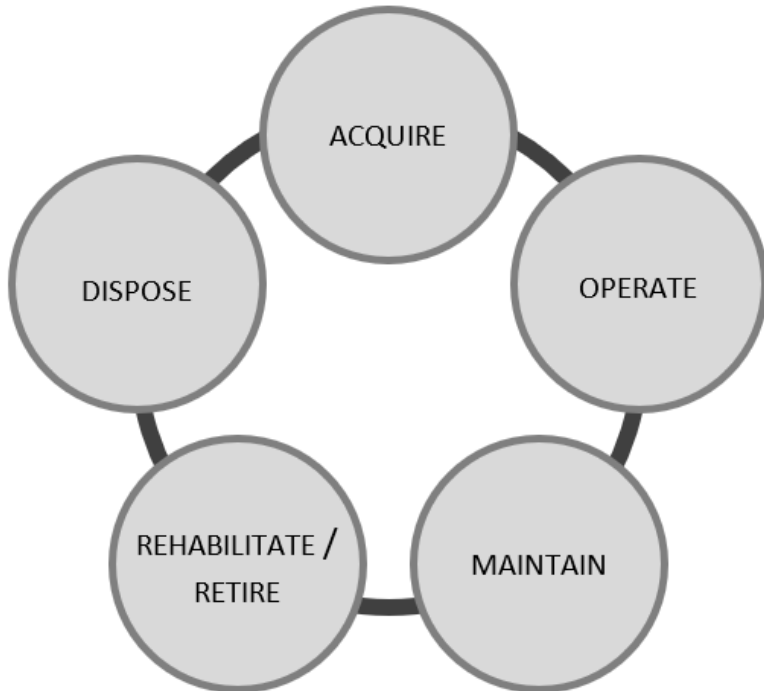


- Revenue Vehicles
- Non-Revenue Vehicles
- Facilities

GCTD T.A.M. Goals

(KPI's) Reported to GCTD Board Monthly

TYPICAL LIFECYCLE PHASES OF A TRANSIT ASSET



CATEGORY	ANNUAL TAM GOALS
Proactive Budget Planning	District departments collaboratively create annual capital project list Increase Capital Budget forecasting to five years to optimize capital investment and maintenance decisions
Improve Transparency and Accountability	Maintain SGR levels to improve system performance Reduce maintenance costs
Safety Risk	≤ 1 Preventable Accident per 100,000 miles ≥ 7,500 miles Between Road Calls
System Reliability	≥ 90% On-time Performance ≤ 1% Missed Trips

PRIORITIZED LIST OF INVESTMENTS

T.A.M. Plan



The table below shows that GCTD's Prioritized List of Investments in all asset categories totals over \$31.7 Million over 5 years. The table includes all assets that have reached (or will reach) the end of their useful between 2021 and 2026.

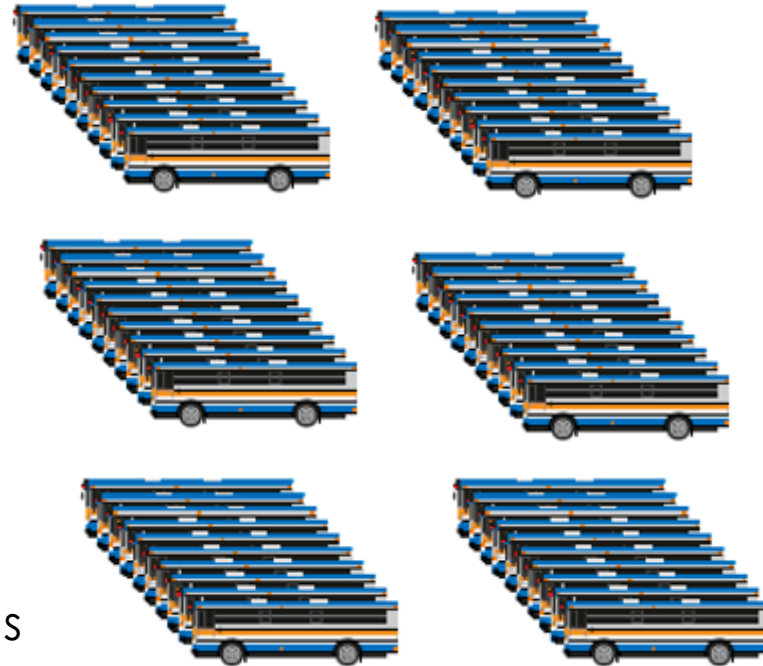
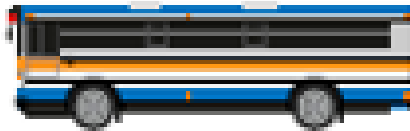
Project Year	Project Name	Asset/Asset Class	Cost	Priority
2021	3- Bus 40'	Revenue Vehicle	\$1,727,128.00	High
2022	2 - Sedan-RELIEF (2009/Honda/Civic)	Equipment	\$50,000.00	High
2022	1 - Van-SUPV (2010/Dodge/El Dorado)	Equipment	\$40,000.00	High
2022	9 – Bus 40'	Revenue Vehicle	\$5,285,770.00	High
2023	9 – Bus 35' (Replace with 40')	Revenue Vehicle	\$5,400,770.00	High
2023	6- Van (Paratransit)	Revenue	\$480,000.00	High
2023	8 – Bus 35'	Revenue Vehicle	\$4,000,000.00	High
2024	7 – Van (Paratransit)	Revenue Vehicle	\$560,000.00	High
2024	2 - Sedan-SUPV (2012/Honda/Civic)	Equipment	\$60,000.00	High
2024	1 - Van-SUPV (2013/Dodge/El Dorado)	Equipment	\$65,000.00	High
2024	14 – Bus 40' (Replace with Zero-Emission)	Revenue Vehicle	\$14,000,000	High
2025	1 – Truck CNG	Equipment	\$65,000.00	High

Funding & Grant Awarding for Low / No Emissions



CNG Bus

Diesel Bus



- **No sales tax** for local match funds
- GCTD's fleet is considered very clean
- 3 years in a row application for Low-No emissions grant has failed



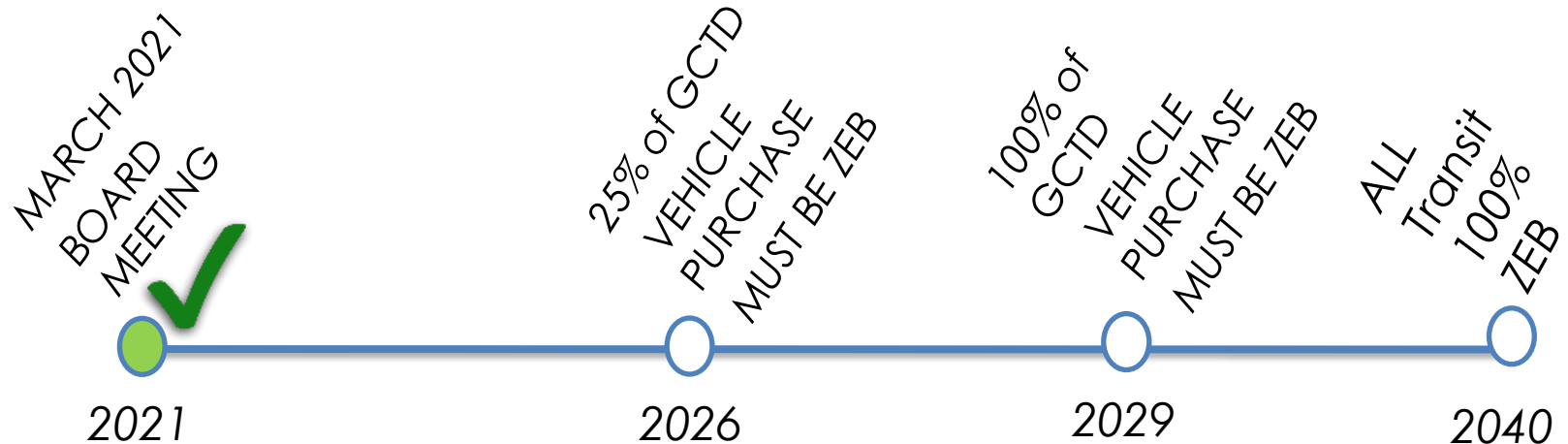
Ventura County Air Pollution Control District



CARB: Innovative Clean Transit Regulation



- **2026:** Innovative Clean Transit (ICT) regulation states 25% of all buses purchased by GCTD must be zero-emission.
- **2029:** All purchases must be 100% zero-emissions for small transit agencies (Fewer than 100 buses).
- **2040:** All transit agencies transition to 100% zero-emissions fleets.



Hydrogen vs. Electric



- **Battery Electric Buses**
 - Ideal for shorter range, smaller size fleets
- **Hydrogen Fuel Cell Electric Buses** (other electric bus)
 - 1 bus : 1 bus replacement for diesel / CNG technology
 - full conventional vehicle performance (gradeability, highway speeds, fueling times and range)
 - Scalable (infrastructure for 50 buses is not much different than for 200 buses) & small footprint



Information Exchange OCTA, Sunline, AC Transit, Foothill Transit



QUESTIONS?