



Franchise Agreement/ Collection Fleet Replacement: Zero Emission Vehicles (ZEV)



A Public Agency

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ZEV Current Status: Summary

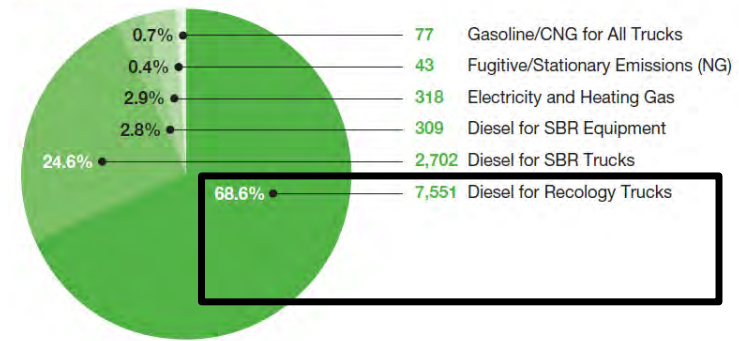
- **Recology's 100% Fleet transition: 2021-2026 (144 vehicles)**
- **New CARB Min. Requirements = 6 trucks by 2026**
 - Other Regs: Newsom's *EO N-79-20* non-ZEV ban by 2035 (= more ZEV)
 - Member Agencies: CAPs/Sustainable Vehicle Fleet Policies: Prioritizes ZEV purchases, even if costlier (MP)
- **Recology (Autocar):**
 - 2024--ZEV truck delivery (est.); 1/2022--2 pilot Evs
 - 2024-2026: Up to 54 ZEV vehicles
 - Marketplace: 1st/2nd gen ZEV Trucks in market now; more in 2021+
- **Notable ZEV Development Areas Needed:**
 - Current Productivity Limits: Recology's Jan 2020 pilot = 3:4 route productivity ratio
 - Price Difference: Higher purchase price/unit (SBWMA pays premium)
 - Higher Lifecycle Cost: Lower fueling costs/still higher lifecycle costs
- **Current Fuel: Renewable Diesel similar GHG/tailpipe emissions as RNG, but cheaper**
 - Recology has used since Nov-19 (plug and play); Best bridge option until ZEV transition in 2024



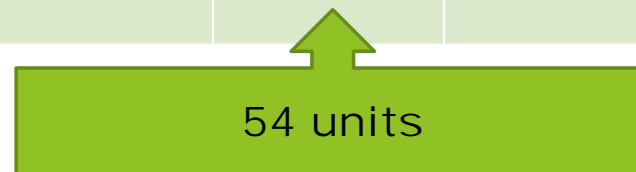
Recology's Planned Fleet Replacement Schedule + GHG impacts

- 120 total Class-8 trucks (2021-2026)
 - +24 Support vehicles
- Possible ZEV fleet candidates: 2024-2026
- Recology's (Autocar) at-scale ZEV delivery: 2024
- Up to 54 trucks could be ZEVs
- **CARB minimum (by 2024): 6 ZEV's**

Figure 28. Agency Greenhouse Gas Emissions (in Metric Tons of Carbon Dioxide-Equivalents, 2017)



Year	2021	2022	2023	2024	2025	2026
# Trucks	4	36	50	40	10	4



Est. Annual Cost of ZEVs (w/no subsidies)

Estimated Annual Cost and GHG Impact of ZEV Purchases						
		Per ZEV	Pilot ZEVs	CARB Min.	ZEV Purchases	
Per Year Parameter	# ZEVs	1	2	6	24	54
1	ZEV Cost Premium (\$/year) (1)	\$31	\$61	\$183	\$732	\$1,600
2	Site Infrastr. Cost Premium (2)	\$24	\$24	\$42	\$169	\$355
3	Fuel Savings (3)	-\$1	-\$3	-\$8	-\$34	-\$76
4	LCFS Credit (4)	-\$16	-\$32	-\$97	-\$389	-\$876
5	Maintenance Savings (5)	0	0	0	0	0
6	Total Annual Premium (6)	\$37	\$51	\$120	\$478	\$1,003
7	Rate Impact (7)	0.03%	0.04%	0.10%	0.40%	0.84%
8	Diesel Reduction (gal/yr)	5,357	10,714	32,142	128,568	289,278
9	SBWMA % GHG Reduction (8)	0.48%	0.96%	2.87%	11.48%	25.83%



Proposed ZEV Roadmap + Subsidy Considerations

○ Proposed Next Steps (1 of 2):

- Continue use of RD as Bridge Fuel (Recology)
- Research Subsidy Programs (Staff/Recology/tech consultants)
- ZEV pilot (Jan. 2022)—Plan/Begin; **Analyze pilot data** (Staff/Recology)
- **Recology Comp Review (Attachment N); propose changes** (Staff/Recology to ZWC/Finance Committee/Board)
- **Site/Facility Power Assessment** (Staff/Technical consultant then to ZWC/Finance Committee/Board)
- **Charging station for Pilot ZEV trucks by Jan.2022--Install** (Staff/Recology)
- **Charging infrastructure at Site--Plan/Install** (Staff/Tech consultant/Recology then to ZWC/Finance Committee/Board)
- **ZEV Pilot Results/costs-Evaluate/Review Mkt. Options** (Staff/Recology/Tech consultants then ZWC)

Proposed ZEV Roadmap + Subsidy Considerations

- Proposed Next Steps (2 of 2):
 - **Develop ZEV Fleet transition Plan** (Staff/Recology/Tech consultants to ZWC/Finance Committee/Board)
 - Base recommendation: 6 ZEVs (CARB Mandate)
 - Option 1: + 24 additional ZEVs (current PG&E Fleet Subsidy Max)
 - Option 2: Up to 54 ZEVs (All eligible Recology replacement vehicles planned in 2024-26)
 - **Subsidy Funding Opportunities:**
 - **PG&E: Apply immediately before money expires:**
 - Submit Letter of Intent (Needs BOD approval)
 - Fleet Subsidy: \$9k/vehicle
 - Site Upgrades: \$50k-\$500k “Behind the meter” expenses covered
 - **TBD: BAAQMD; Fed/State; PCE**

EV Fleet Process and Timing

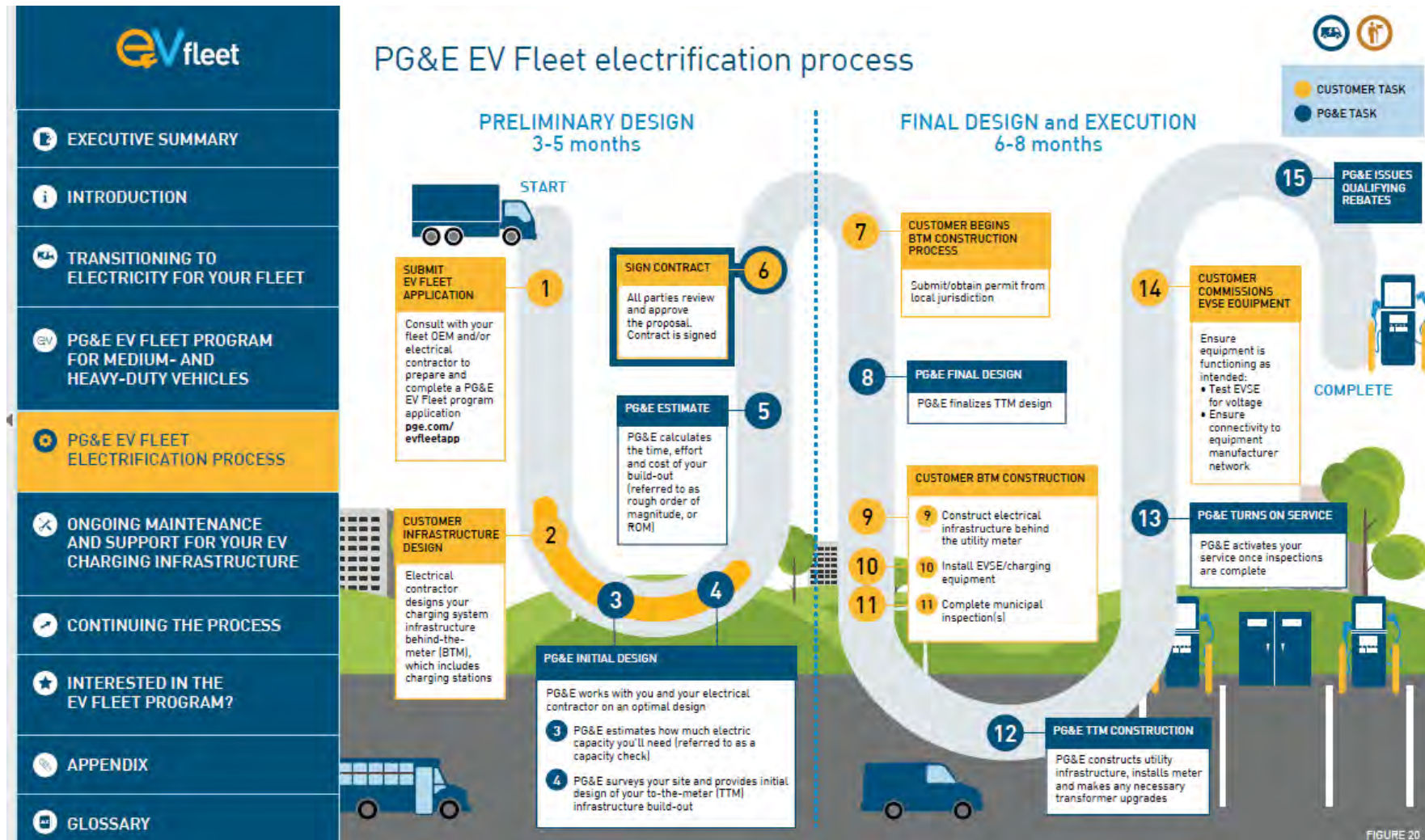


FIGURE 20

