

Auto-propane

Versus Electric – What you need to consider



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As more **FLEET OWNERS** look to reduce their emissions and create a cleaner environment, many have turned to alternative options such as auto propane and electric to meet their sustainability goals. While electric vehicles have received much attention, there are several important factors fleet owners must consider when determining which fuel is their best option. (The following information was sourced from Richard Tackett's article, [Do you plan to refuel or propel your electric vehicle?](#) published in *BUSRide Magazine* May 1, 2019.)

CONSIDER	PROPANE	ELECTRIC
Cost to install 10 fleet vehicles		
<ul style="list-style-type: none"> 1,000-2,000 gallon tank/five level 3 fast EV chargers 	\$60,000 US	\$480,000 US
<ul style="list-style-type: none"> Site preparation & equip. 	\$36,000	\$200,000
<ul style="list-style-type: none"> Installation 	\$24,000	\$280,000
<ul style="list-style-type: none"> Additional infrastructure costs 	None	Electric sub-panels, added amperage to power multiple stations, added amperage to power multiple stations, and upgrading and replacing incoming power lines
<ul style="list-style-type: none"> Leasing option 	Yes	Yes
Scalability – growing your fleet	Easy – install additional fuel storage tanks or larger ones	Challenging – may require additional chargers and panels to accommodate amperage, new power drop (the overhead electrical line running from a utility pole to the customer's building), upgrades to the grid transformer for adequate power supply, and additional ventilation if charging in a covered area
Downtime to refuel/recharge	Minimal downtime Quick-connect nozzle and fuel dispense = quick, convenient and safe refuelling	Must plan downtime 8-10 hours with a standard charger 1.6 hours with an express charger
Refuelling/recharging costs	Stable Lower prices can be secured with a fuel contract.	Fluctuating Electricity costs vary throughout the day and can increase if demand for power exceeds a station's capability
Station maintenance	Lower annual maintenance costs compared to electric	Higher compared to auto propane
Vehicle maintenance & repairs	Lowest cost of any fuel over lifetime	Higher compared to auto propane
Driving range	400 miles on a single refuelling	120 miles on a single charge *using vehicle electric options can diminish mileage – heat, air conditioning, windshield wipers and radio
Reduced emissions	Near-zero emissions – new ultra-low NOx propane engines are 98% cleaner than EPA standards	Depends on the source of electric power generation – auto propane can emit 70% fewer sulfur oxide emissions and up to 45% less particulate matter than electric vehicles from well-to-wheels
EPA-mandated tailpipe emissions	Exceeds	Exceeds