

Porterville Transit transitions more than half of its fleet to zero emission vehicles for less than the cost of a new car

By Reggie Ellis

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PORTERVILLE – Twenty thousand dollars doesn't buy municipalities much these days, but it was enough for the city of Porterville to convert more than half of its transportation fleet to electric vehicles.

The city announced the milestone earlier this month and even shared how they did so other cities can take advantage of incentives which helped Porterville purchase \$12 million in transportation vehicles for less than the cost of buying a new car.

Porterville transit manager Richard Tree said the city was an early adopter of alternative fuels deploying its first compress natural gas (CNG) bus in 2010 and its first electric bus in 2018. The city first committed to using electric buses daily on its fixed routes in February 2020. Today, Porterville's fleet consists of 10 battery-electric buses, 12 battery-electric vans, 10 200kW DC Fast Chargers (DCFC) and six Level-2 public charging stations, with 14 additional DCFC stations under construction, that reduce total cost of ownership and enable quicker adoption, while also generating revenue to offset the cost of upgrades.

"The key was taking those first steps—it was hard work, but more doable than anyone thought," Tree said. "A wealth of resources existed to help us move forward. Getting started quickly showed what was possible technologically and financially. We learned, adjusted, and kept moving forward."

Most of the alternative fuel equipment and infrastructure was built through a combination of federal and state incentive programs through Cal EPA, San Joaquin Valley Air Pollution District, Southern California Edison, California Public Utilities Commission, and the California Air Resources Board (CARB).

Porterville has already purchased three more electric buses and expect them to arrive before the end of this year, leaving Tree just 10 buses short of his goal of transitioning his entire fleet to electric buses by 2024.

"We looked under every rock to save the city money," Tree said.

Tree emphasized the advantage of engaging resource partners with the knowledge and capabilities required to help address the challenges encountered when planning, funding, deploying and managing zero-emission transportation equipment and infrastructure. For the last year, Porterville has been working with SRECTrade, the largest third-party environmental commodities asset management company based in Solano, Calif. The first four initials of SRECTrade stand for Solar Renewable Energy Certificates.

Mike Saxton, managing director for SRECTrade, said solar certificates are just one of several markets his company operates in, with the other major one being California's low carbon fuel standards (LCFS) program. Under the program, the California Air Resources Board (CARB) sets a threshold for the amount of carbon emissions generated by a piece of equipment, model of vehicle and the type of fuel it consumes. For every metric ton of carbon emissions displaced by using cleaner equipment and fuels, such as electric vehicles, CARB issues a low carbon credit to the transportation agency or business. Gasoline and diesel producers then purchase credits to offset their deficits in meeting CARB's emission standards for the fuel they make. While Porterville has earned about \$60,000 in credits, SRECTrade claims to have clients, such as an agriculture processing site, that have made about \$800,000 in credit proceeds annually for using 150 electric forklifts and five electric yard trucks and in some cases have exceeded the cost of fuel and maintenance of those vehicles.

"Petroleum producers have to clean up reduce greenhouse gases in their fuel or face penalties," Saxton said. "And they can avoid the penalties by buying these credits."

In a region battling air pollution, Porterville's steps to deploy zero- and near zero-emissions fleet of Compressed Natural Gas (CNG) buses and electric buses, as well as light-duty charging stations that generated more than \$80,000 of LCFS credits in 2020, and with higher post-COVID use could generate more than \$100,000 in 2021.

"We are excited about the revenue stream and hope it stays long-term," Tree said. "But we expect the funding to be very competitive going forward."

Tree says it currently costs the city about 14.5 cents per kilowatt hour (KWh) to charge its electric vehicles but the act of using those same chargers is currently generating about 21 cents per KWh in credits.

“We are generating revenue just by operating these vehicles,” Tree said.

These cleaner vehicles also save money. Electric fuel and maintenance costs have been reduced by about 80% and 75%, respectively. Tree said he estimates the city will save at least \$300,000 over the lifespan of each vehicle. Grant and incentive programs such as the LCFS program supported the city’s initial deployment while also providing an ongoing revenue stream and offsetting electricity costs. Porterville initially tried marketing and selling its LCFS credits internally, but Tree said the program was extremely complex and time consuming for staff and had a slower return on investment due to the cost of staff time.

“The City of Porterville has demonstrated committed leadership in its drive to reduce carbon emissions. We’ve been happy to play our role on this very driven team,” Saxton said.

SRECTrade was able to plug into Porterville’s system and handle the LCFS credit process from start to finish. Saxton said his company handles registering the vehicles and infrastructure with CARB, handle the reporting requirements to generate the credits, track the process to ensure the credits are issued and then sell the credits to buyers in the niche market. Even more than expertise, Saxton said his company offers scale in the market.

“These buyers want a few big transactions, and if you don’t have the scale you have a major hurdle to selling your credits,” Saxton said.

Porterville has set its sights on even bolder clean energy goals, exploring solar generation, energy storage, renewable electric vehicle chargers, and electric vehicle and charger programs that would help its residents make the switch to electric vehicles. Porterville would be in prime position to cash in on Gov. Gavin Newsom’s push to end the sale of gasoline engines in cars by 2030. Tree also noted the city could earn additional credits if the charging stations are being replenished by renewable energies such as solar.

“At that point there is a multiplier effect,” Tree said. “The potential here is hundreds of thousands of dollars per year.”

SRECTrade said it will continue supporting the city through its expertise in environmental commodities and transparent reporting of the value being generated. Saxton said public agencies and private companies wanting to make the switch to alternative fuel technologies, and get paid to do it, should get started as soon as possible. He said advantages of using a company like SRECTrade is understanding the environmental commodities market, strategizing the order of projects to maximize proceeds and having the transparency they provide in the process from start to finish.

“Clients only pay when the service is delivered,” Saxton said. “We pay our clients and take fees as a percentage of the value we create. The better we do for them, the better we do.”