SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

TRANSPORTATION ELECTRIFICATION

Electrify your fleet with these key commercial technologies.

California's goals to reduce greenhouse gas (GHG) emissions are some of the most ambitious in the world. Southern California Edison (SCE) and other utilities operating in the state are playing a proactive part in this significant reduction effort; supporting cleaner generation of electricity through increased use of renewable energy and encouraging greater adoption of Transportation Electrification (TE).

The following provides an overview of key commercial technologies available to electrify your fleet.

Make the right choice for your fleet.

Do you own or manage a fleet of vehicles? Have you considered electrifying some or all of your vehicles? Technologies now exist to electrify many segments of the transportation sector, reducing costs for fleet operations and displacing GHG and pollutant emissions, not only for fleet personnel, but for entire neighborhoods that benefit from clean energy.

Many customers will find that adopting TE will result in savings when evaluating the total cost of ownership (acquisition/lease, maintenance, and fuel) over the lifespan of the vehicles. Consider, for instance, electric vehicles tend to have significantly less brake wear than conventional vehicles thanks to regenerative braking. Also, as electricity is readily available, there isn't a need to manage your fuel supply after you deploy your preferred charging infrastructure.

Whether you are looking for greater efficiencies, air quality compliance, or improved corporate citizenship, TE truly has the power to serve your business needs.

Light-duty Passenger Vehicles

Electric versions of virtually all types of light-duty vehicles are available. On-road (passenger, compact cargo vans) or off-road (warehouse/security carts) vehicles may match your needs with little to no impact on your operations, depending on dwell times and dwell locations for available charging.

Many light-duty vehicles are available as battery-electric (i.e., "pure" electric (BEV)) or plug-in hybrid electric (i.e., with an electric motor and a gas-powered engine (PHEV)) vehicles with range matching, or even exceeding, conventional vehicles. You may choose to deploy charging infrastructure at a business location, but many organizations are also installing charging equipment at drivers' residences or sometimes both.

For More Information
sce.com/TE

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Forklifts

Electric forklifts are available in Classes 1 to 3 with up to 20,000 lbs. lift capacity. They represent about 60% of today's forklift market. In many applications, internal combustion engine Classes 4 and 5 forklifts may be substituted with Classes 1 and 2 electric forklifts.

Electric forklifts mainly use lead-acid batteries, but models are available with lithium ion (like light-duty EVs). Unlike older generation DC models, new electric forklifts have AC motor technology and provide a lift performance similar to internal combustion engine forklifts, in many cases. Most models available in the market may accommodate an eight-hour shift and eliminate exhaust fumes from the worksite for your employees.

Several charging level options are available based on your operating needs, from 120V to 480V, single-phase or three-phase. Charging can occur in-vehicle or using a rack-type station for multiple shift operations. If forklifts run through multiple daily shifts, you may need several batteries and battery switching to accommodate charging and cooling time, but fast charging and on-board cooling systems can help reduce time significantly.

Passenger Buses

Electric buses are now available for commuters and school students alike, including 40 ft. and 60 ft. articulated transit buses. They are typically made to order and customers may select vehicles with custom seating arrangements, lighting, and battery sizes to meet their specific needs.

Like passenger vehicles, buses are available both as BEV or PHEV. Many buses can accommodate a typical route solely on electric fuel.

Charging may occur "in-depot" (central commercial parking location) overnight, between evening and morning shifts, or on-route. On-route charging occurs multiple times during a shift for short durations while a bus is loading and unloading passengers at a stop (buses pass over an inductive coil or have an overhead connection to a high-power charging source).

Trucks

In the broad truck segment, electrified trucks are prevalent for delivery applications. Refuse trucks, and heavier Class 7 and 8 vehicles, have recently become available. With electric range often exceeding 100 miles per charge, and even 300 miles in some cases, many models may replace fossil-fuel powered trucks, in particular when

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vehicles drive relatively short distances over defined routes with frequent stops. Plug-in hybrid trucks may have a virtually unlimited range when using their internal combustion engine to extend range.

Electric trucks are available in both BEV or PHEV and can be charged using either Level 2 or DC Fast Charging. The duty cycle will determine charging speed needs. Many medium-duty and heavy-duty trucks have proprietary charging systems. They typically charge overnight in-depot when parked and not running.

Electric Transport Refrigeration Units (eTRU)

eTRUs may replace most diesel- or natural-gas-powered TRUs. They use electricity instead of fossil fuels when vehicles are idled. If you manage a fleet of refrigerated trucks, eTRUs may generate real savings on fuel costs. As well, if you manage a facility that handles refrigerated goods, installing electric infrastructure to power eTRUs will lower emissions of pollutants and GHG at your site, along with a significant noise reduction.

eTRUs may not have a battery and run directly from the grid by plugging in while the truck is docked or parked in the yard. Charging is low level and only powers the refrigeration unit on the truck.

We're here as your trusted energy advisor.

As your energy provider we are here to support your TE plans and clean energy goals. We encourage you to contact us early in your process to discuss next steps.

Have a question or want to discuss your TE plans?
Please call your SCE Account Manager or 1-800-990-7788.
Or for more information, visit sce.com/TE.

Please note that your actual energy costs may vary depending on your electric rate schedule, your energy usage pattern, operating hours, and service voltage. Businesses interested in setting up EV-charging services should understand the legal, regulatory, and other requirements that may be involved. We cannot advise customers on pricing or other aspects of a business establishing EV-charging services.