Seattle makes history with electric garbage truck



Enlarge / This is Recology's new BYD 8R, the first electric rear-loading class 8 garbage truck in the US.

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If you live in Seattle, your scheduled garbage pickup might be about to get a lot quieter. Recology, a West Coast waste management company, has just taken the delivery of its first fully electric garbage trucks. The vehicle is a class 8 truck—meaning the heaviest—made by BYD, with New Way supplying

the Viper rear-loading garbage truck body. It’s also apparently the first electric class 8 rear-loader in the country and the first of two that Recology ordered last year.

The BYD’s specs make for very different reading compared to the average electric vehicles we cover. The powertrain is a 320kW (430hp), 1101Nm (812ft-lbs) electric motor, supplied by a 295kWh battery pack. However, it does have to carry around a truck with a 21,605lb (9,800kg) curb weight, and it can be optioned to a gross vehicle weight of either 57,500lbs (26,082kg) or 66,000lbs (29,937kg). (Interestingly, the photo BYD sent us has the GVW at 50,000lbs on the door.)

All that mass means the truck is limited to a 65mph (104km/h) top speed and a range of 56 miles (90km) and 600 pickups. Recharging the truck doesn’t take as long as you think, despite all those kWh—nine hours connected to a 33kW AC outlet. The 8R supports either 120kW or 240kW DC fast charging, which takes 2.5 hours or 1.5 hours to recharge, respectively.

I admit, the fact that this is the US’ first electric rear-loader surprises me. Just as with passenger vehicles, some heavy vehicle use cases are better suited to electrification than others. And collecting the garbage is probably one of the most ideal. Route distances tend to be short and feature plenty of starting and stopping. The instant torque of an EV powertrain certainly helps with the starting part, particularly when it’s a vehicle this heavy, and regenerative braking means each stop is a way to recapture some energy. Like passenger buses and port haulers, garbage trucks also spend plenty of their workday idling, which isn’t something EVs worry about. An electric powertrain also vibrates a lot less than a diesel one, so wear and tear over its service life ought to be better than a fossil-fuel-powered equivalent.

Despite this, electric garbage trucks are still few and far between. BYD’s main competitor is Motiv Power Systems, which

has sold small fleets of class 8 side-loading garbage trucks to Los Angeles and Sacramento, California. Wrightspeed, which was also making hybrid-electric garbage trucks—featured in this article from 2015—appears to have gone dormant, despite a contract to supply the New Zealand cities of Auckland and Wellington. And recently, Volvo announced a battery electric garbage truck, the FE Electric, although it appears to be limited to the European market.

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