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Contact Name: Board of Supervisors Office
Contact Phone Number: 319-356-6000
Email: sups@co.johnson.ia.us

May 10, 2017

JOHNSON COUNTY PARATRANSIT SERVICE ADDS UNIQUE HYBRID VEHICLE TO FLEET

Johnson County, Iowa — Johnson County SEATS paratransit service recently added a hybrid vehicle that uses hydraulics rather than electricity to power it. The vehicle is the first of its kind in the state of Iowa.

The vehicle is manufactured by Lightning Hybrids (www.lightninghybrids.com), based in Loveland, CO. The company developed and produces the Energy Recovery System (ERS), a hydraulic hybrid upfit for urban medium- and heavy-duty commercial vehicles such as delivery trucks and buses. The system hybridizes a vehicle with an existing internal combustion motor, saving fuel and reducing harmful emissions. It offers a 50 percent reduction in air-polluting nitrogen oxides and up to 35 percent fuel savings.

The motor/pump in a Lightning Hybrid vehicle converts mechanical energy to hydraulic when the vehicle is braking and hydraulic energy to mechanical when it is accelerating. Its benefits are best suited to vehicles that stop and start frequently, like urban delivery vehicles, shuttle and paratransit buses, or trash haulers. Vehicles in locations with heavy traffic on highways will also benefit due to frequent deceleration and acceleration. A regenerative braking system slows the vehicle by converting motion (kinetic energy) to a form of energy that can be stored and then reapplied to help the vehicle accelerate. The system cuts down brake wear by 4 to 8 times.

A web-accessible dashboard shows fuel economy, driving habits and other metrics, which will allow Johnson County SEATS to validate efficiency results and adjust the system for optimum results. The cost to install the ERS in the vehicle was \$17,000, a portion of which was paid for with federal funding.

In addition to the unique sound of the Lightning Hybrid vehicle, SEATS riders will also notice a new look on the hybrid vehicle. Current SEATS vehicles have "ECITransit" graphics on their sides, whereas the new vehicle has green striping with "Corridor Rides" graphics. Over time additional vehicles will also sport the "Corridor Rides" brand.

To learn more about Johnson County SEATS paratransit service, visit www.johnson-county.com.
Under Departments, click on SEATS Paratransit.

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