

# HYBRID ELECTRIC



## YOUR GREEN PASS FOR FREQUENT STOP AND GO

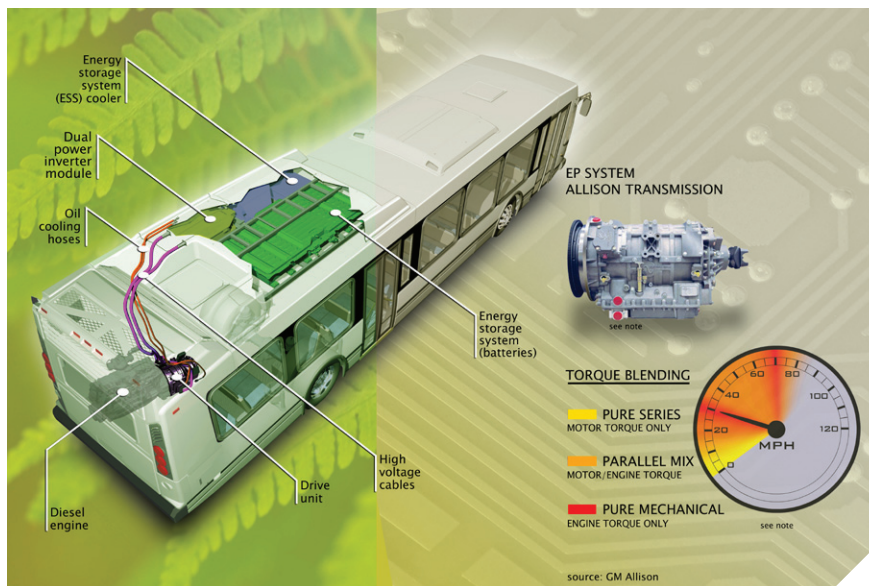
As the vehicle accelerates from a stop, the electric drive predominates. Mechanical drive gradually blends with electric drive until the vehicle attains highway speeds; the drive then becomes purely mechanical. The regular bus transmission is replaced by an electric version that also acts as a generator and electric motor. The batteries are located on the roof of the bus and weigh approximately 900 lbs (400 kg).

**NOVA BUS**  
Driven by your city

# AT AN AVERAGE SPEED BETWEEN 9 AND 18 MPH\*, FUEL CONSUMPTION IS REDUCED BY 30 TO 40%\*\*

## Benefits of operating a Nova LFS HEV

- Offers up to 40% reduction in fuel consumption while utilizing existing infrastructure.
- Provides savings on engine and brake maintenance costs since hybrid configuration puts less stress on them.
- Maximizes energy efficiency: 280 HP engine optimizes vehicle weight.
- Maintains and enhances air quality and reduces greenhouse gas emissions by up to 40%.
- Provides a quiet and smooth ride.



## How does it work?

- Regenerative braking slows the bus down.
- The energy produced by the braking action is stored into the battery system.
- The battery system is then used to assist in powering the bus using quiet electric motors.

## Nova LFS HEV emissions during hybrid operation compared to conventional combustion engines

Nitrogen Oxide (NOx)	up to 50% less
Particulate Matter (PM)	up to 90% less
Carbon Monoxide (CO)	up to 90% less
Hydrocarbons (HC)	up to 90% less

Source: GM Allison

## SPECIFICATIONS

SEATING CAPACITY	Up to 41
ELECTRIC / ELECTRONIC SYSTEM	Volvo Multiplex system (VBEA)
CORROSION-RESISTANT OUTSIDE SHELL	Fiberglass and thermoplastic skirt panels
ROOF-MOUNTED HVAC	Multiplex control Carrier heater Carrier AC-353 Thermo King Athenia
LENGTH	40 ft. (12.2 m)
WEIGHT	28,220 lbs (12,800 kg)
STRUCTURE	Stainless Steel
ENGINE	Cummins ISB 280 HP
AXLES	Front ZF RL-85 Rear ZF AV-132
ELECTRIC DRIVE	Allison EP 40 system
BRAKES	Disc ABS W/Traction Control
FUEL TANK CAPACITY	82 US gal. or 125 US gal.

\* 15 and 30 km/h

\*\* Based on an 11-month test period including harsh winter conditions. Optimal results were achieved in urban stop and go driving conditions.