



## Hybrid Turbine-Electric Transit Bus

### Technology

The use of aerospace technology in an advanced transit bus that will double the fuel economy and lower emissions to one-tenth of EPA standards.

### Benefits

Gas turbines offer

- Very low emissions
- High reliability
- Multiple fuel capability

Electric power trains offer

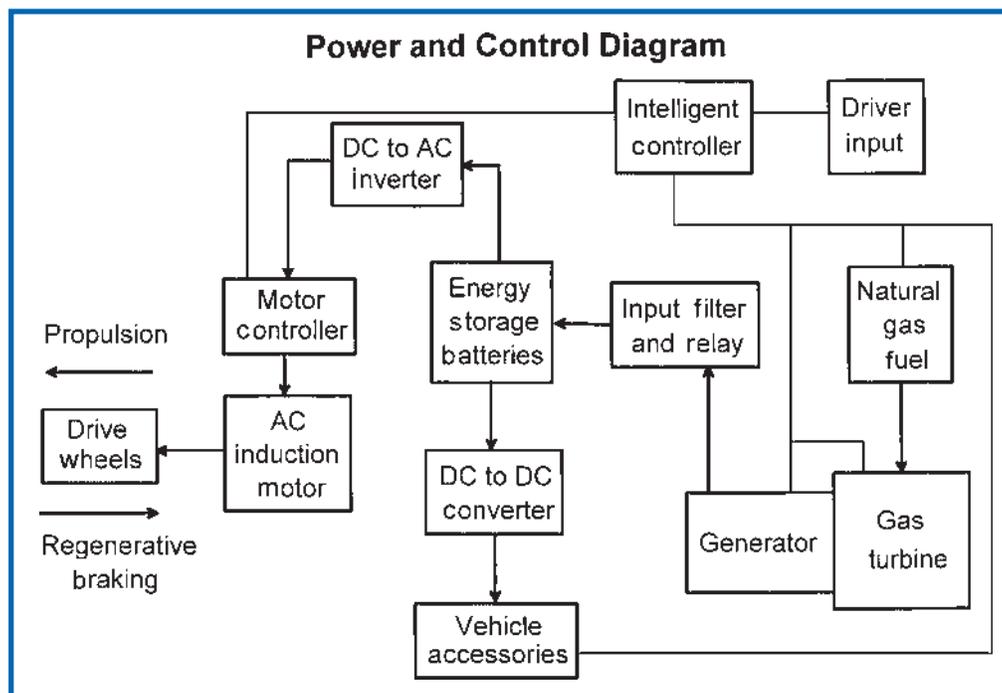
- Recovery of energy during braking
- Smooth and quiet operation
- Elimination of expensive and inefficient automatic transmissions

### Commercial Applications

- Automobiles
- Delivery vehicles
- Municipal waste trucks
- School buses
- Shuttle buses

### Technology Description

The heart of the vehicle's power system is a natural-gas-fueled turbine developed from an aircraft jet engine. The turbine turns a generator, thereby producing electricity. Power from both the generator and storage batteries is provided to a variable-speed electric motor attached to the rear drive axle. An intelligent power control system determines the most efficient operation of the gas turbine and storage battery system.



## Options for Commercialization

Regional transit authorities in Northeast Ohio have shown a great interest in fuel-efficient, low-emission transit buses. The resulting vehicle and power train components are capable of being manufactured. NASA Glenn would be interested in partnering to help this technology mature.

## Contact

Technology Transfer & Partnership Office  
NASA John H. Glenn Research Center  
at Lewis Field  
Mail Stop 4-2  
Cleveland, OH 44135-3191  
Phone: 216-433-3484  
Fax: 216-433-5012  
E-mail: [ttp@grc.nasa.gov](mailto:ttp@grc.nasa.gov)  
<http://technology.grc.nasa.gov>

## References

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## Key Words

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