



Metro Transit Fuel Economy Test



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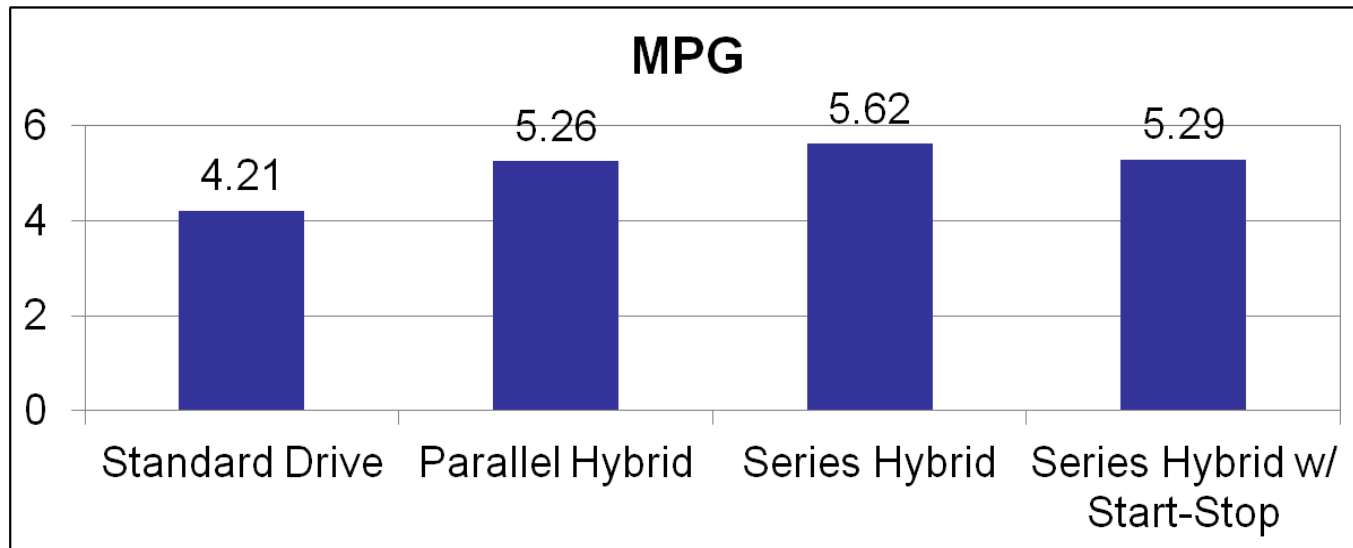
Metro Transit Fuel Efficiency Testing

- In-service MPG test
- BAE MN Road test
- Metro Transit MN Road test
- University of Minnesota test



In-Service Test

- February, 2013; 12-day test
- 6 buses, buses rotate blocks every two days
- 1 parallel hybrid – 3 diesel – 2 series hybrid



BAE MN Road Test

- Why is MPG lower with start / stop?
- MNDOT test track
 - Monticello, MN
- Series hybrid w / electric accessories and start-stop
- Results: start-stop advantageous at certain low speeds



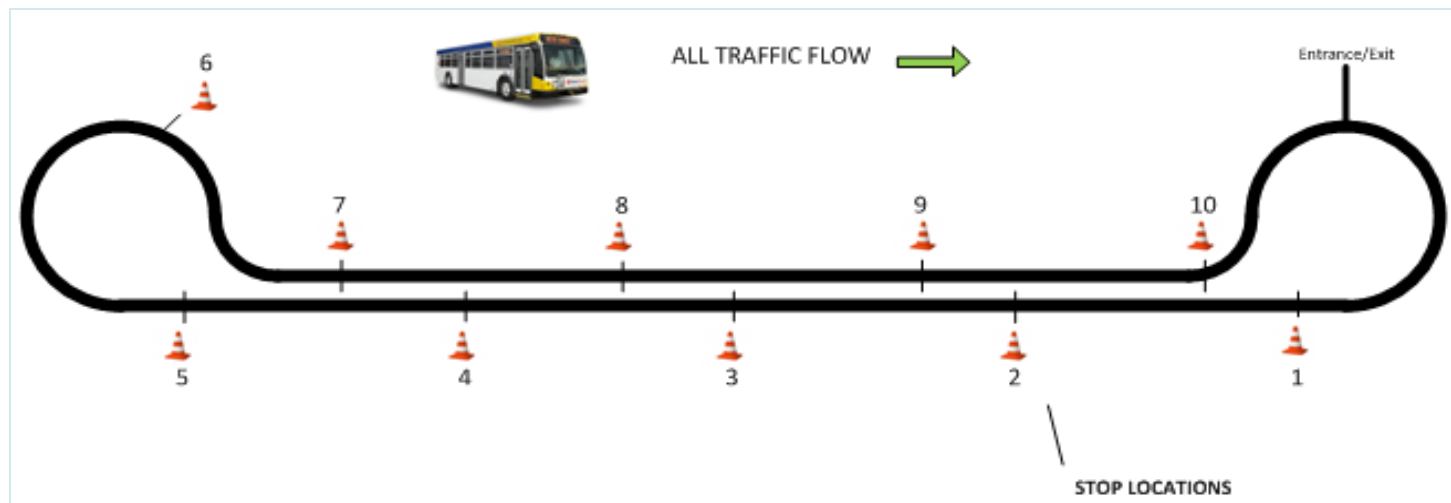
Metro Transit MN Road Test

- MNDOT test track
- Modeled after SAE test
- Buses tested
 - Series hybrid
 - Parallel hybrid
 - 2 diesel
- Same drivers, fuel type, course, # of stops
- Fuel weighed

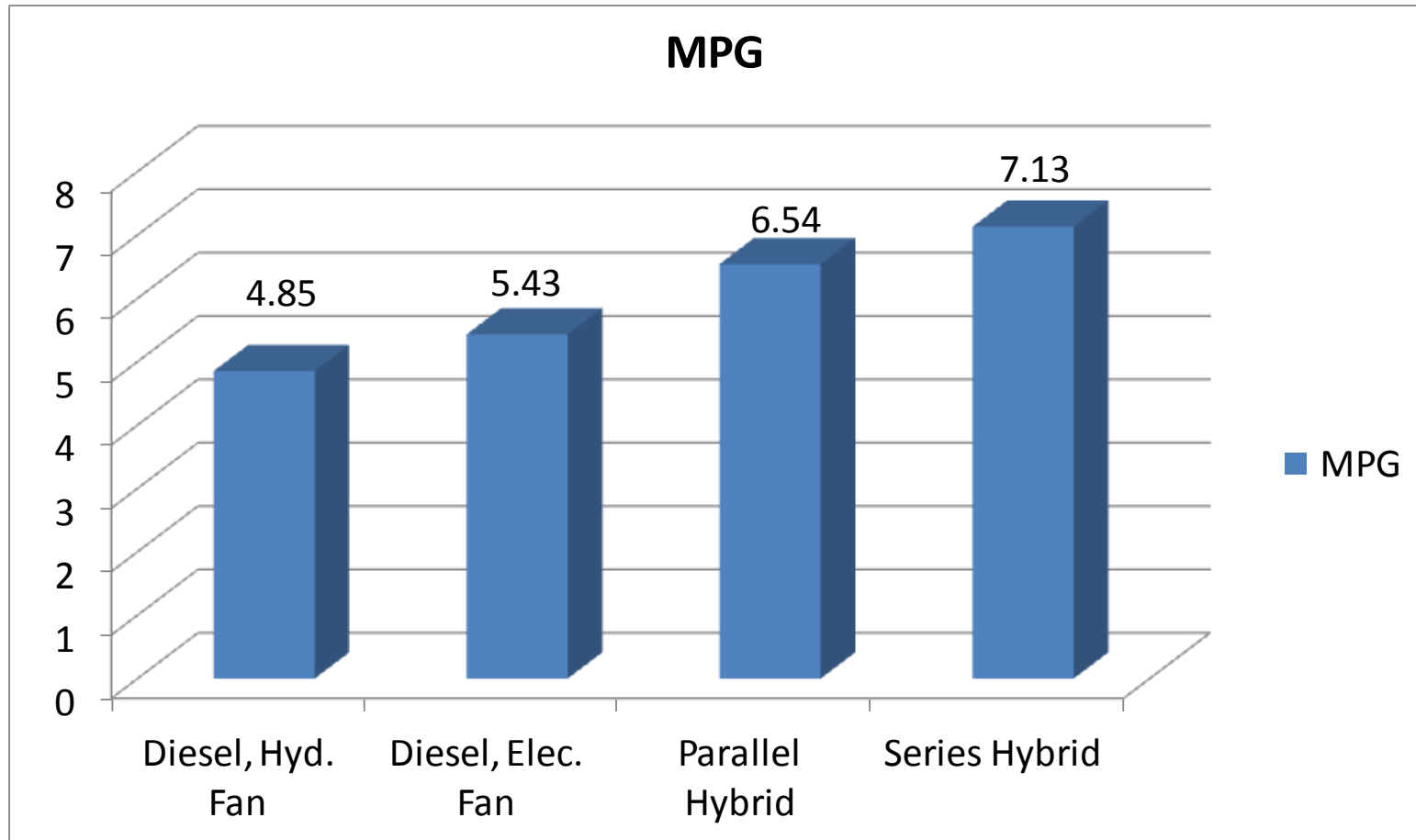


Test Procedure

- Route profile:
 - 14 MPH avg. speed
 - 2.5 mile track – 10 stops
- Test segments
 - 2 segments / bus
 - Drivers change buses
 - “Coach” on board



Test Results



Testing Benefits

- Better informed choices
 - Technologies
 - Bus types
- U of M test
 - Match bus type with route type
 - Monitor:
 - Electrical power consumption (data loggers)
 - Fuel consumption (flow meter)
 - Passenger load (air bag sensors)
 - Weather

