

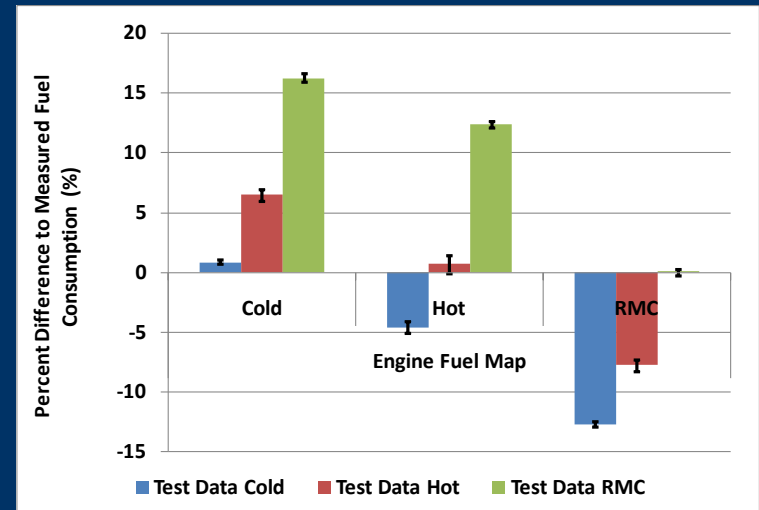
# The Impact of using Derived Fuel Consumption Maps to Predict Fuel Consumption

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- 2-D fuel flow engine maps (engine speed and engine torque)
- Derived from one test cycle and applied to another
- Test cycles
  - Cold start transient test
  - Hot start transient test
  - Steady state test
- Two 2010 heavy-duty diesel engines
- The steady state and transient behavior of a cold or hot engine is vastly different due to the interactions between modern technologies

Engine 1 – Integrated Fuel Consumption



Engine 2 – Integrated Fuel Consumption

