Fuel economy and emissions reduction of HD hybrid truck over transient driving cycles and interstate roads

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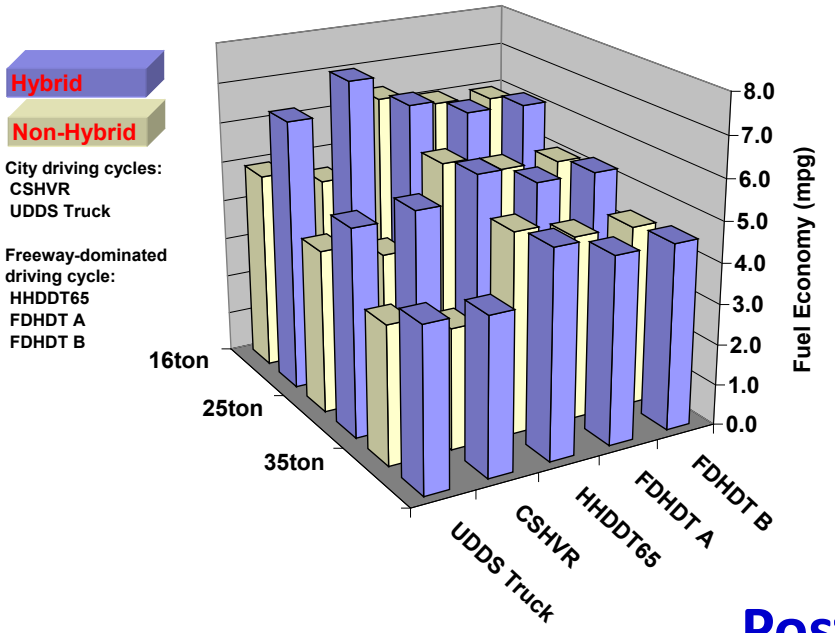
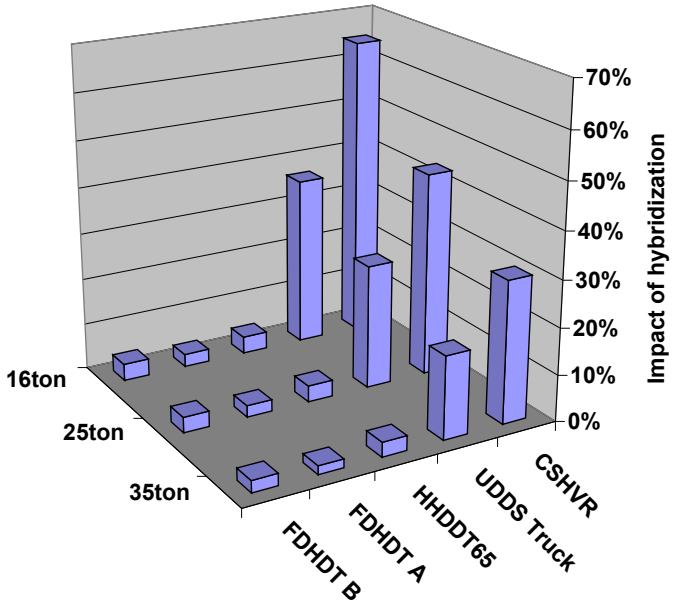
We compare simulated fuel economy and emissions for conventional and hybrid class 8 heavy-duty trucks over multiple urban and highway driving cycles

- Hybridization significantly improves fuel economy and tailpipe emissions reduction over city driving cycles, but becomes limited over freeway-dominant drive cycles due to rare opportunities for breaking energy recovery.
- Optimizing transmission and engine control strategies in achieving lower fuel consumption is an important direction, particularly for heavy loads over freeway-dominant driving cycles.
- The catalyzed DPF in hybrid and conventional trucks over freeway-dominant drive cycles can be passively regenerated, eliminating fuel penalty for DPF regenerations.





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