





Today's Meeting Objectives

- Familiarize attendees with HTUF subject areas
- Update stakeholders on status and results of HTUF and CALSTART activities
- Solicit input and direction on new initiatives
- Build stakeholder interest and participation in working groups



How Has HTUF Helped the Advanced Vehicle Industry?

- HTUF learnings have driven numerous outsidefunded activities and delivered key outcomes:
 - Demonstrations of high-efficiency & zero-emission vehicles in Calif., NY and elsewhere
 - New vehicle incentive programs in Calif., NY & Chicago; effort underway to expand
 - New vehicle & equipment offerings in the market
 - Direction to new EPA/NHTSA fuel economy standards for trucks
 - New market opportunities around vehicle electrification, automation & export power



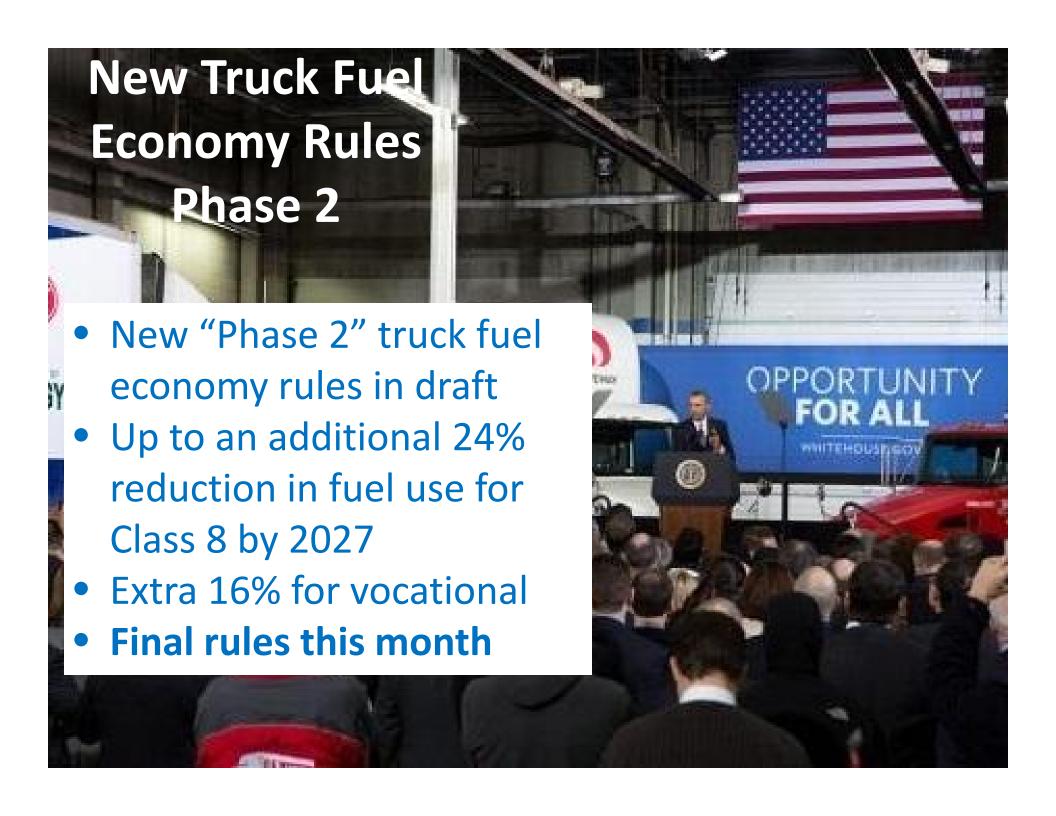


Caterpillar Hydraulic Hybrid Excavator

Early field deployment helped CAT move hydraulic hybrid to market as much as 1 year earlier



Caterpillar employs hydraulic hybrid technology that is 98% common with the conventional 336E excavator to boost fuel efficiency of the 336EH hybrid 50%.



HTUF Working Groups

- All are in "scoping" mode in the process of shaping message, direction & expectations
 - Connected & Automated Truck Users Forum: coordinating commercial industry participation in mixed convoy demos
 - Cybersecurity WG: seeking to finalize needs re: standards
 - Worksite Electrification & Export Power WG: identifying & addressing barriers to greater commercialization
 - Commercial Electric Vehicle WG: addressing critical regulatory barriers



