

Reducing Motor Vehicle GHGs: Study Overview

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Clean Air Future (NESCCAF)



Presentation Overview

- Background
- Study Design
- Sequence of Presentations
- Next steps



Background

- AB 1493 (California “Pavley” Bill)
- New England Governors/Eastern Canadian Premiers Climate Action Plan
- 2003 state of the state address by Governor Pataki and A04082 NYS Assembly Bill



Study Overview

- Develop estimate of GHG reducing potential for 35 technologies as well as cost estimates
 - Purpose was to screen technologies for combined simulations in Phase 2
- Combine technologies into packages and simulate GHG emissions
 - 75 simulation runs for five vehicles types
- Assess lifecycle costs for the different technology packages
 - Takes into account what consumers pay over the life of the vehicle
 - Assumptions made about gasoline prices and other factors



General Overview of Study

- AVL defined modeled technologies, provided engineering expertise, and conducted CRUISE simulations
- Definition of modeled technologies were provided to Martec for development of cost assessments
- Martec estimated costs and also made forecasts for the introduction of technologies into the vehicle fleet in future years



Overview (continued)

- Meszler Engineering Services (MES) provided engineering and project management support, and evaluated the GHG emission reduction potential of certain technologies (such as air conditioning)
- NESCCAF directed the study, and oversaw the synthesis of the cost and technical analyses



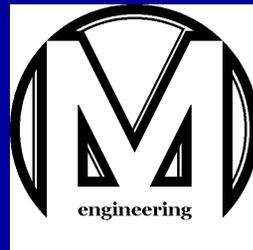
NESCCAF Study Team

AVL

*Technology Impact
Evaluation*



*Technology Cost
Evaluation*



*Air Conditioning, N₂O, Methane
Evaluation*



*Data Integration &
Cost Effectiveness*

Report

Extensive interaction between
study participants not depicted.



Team Effort

- In most cases decisions were made jointly by the project team
- In cases where information or direction was needed, these were provided by NESCCAF
- Examples include: retail price equivalent, hybrid vehicle design, inclusion of air conditioning in technology packages



Sequence of Today's Presentations

- AVL – CRUISE Model and CRUISE simulation results
- Martec – cost method and cost analysis results
- Meszler Engineering Services
 - Air conditioning analysis
 - Synthesis of GHG reductions and cost benefit analysis (on behalf of NESCCAF)



Next Steps

- Finalize report
- Interim report presents nearly final technical results for the 5 categories of vehicles. Cost figures need to be finalized for the final report.
- Expected completion date: mid-May

