

ICCT Briefing to OMB

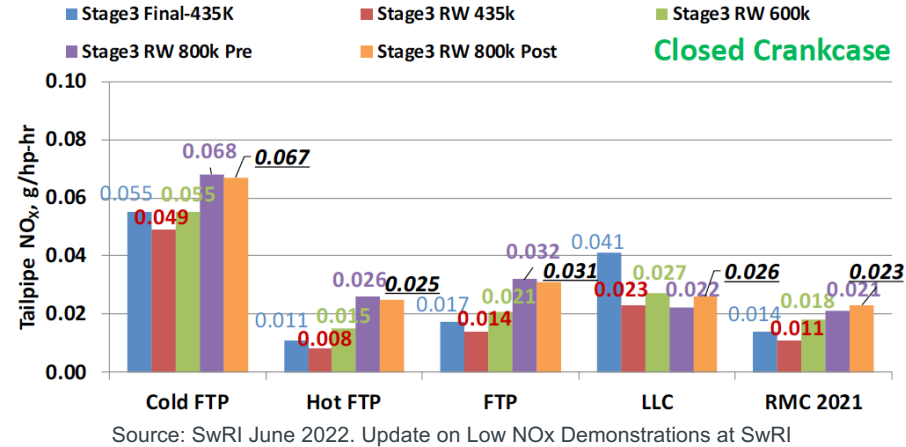
E.O. 12866 Meeting for 2060-AU41

5 December 2022

Key Points

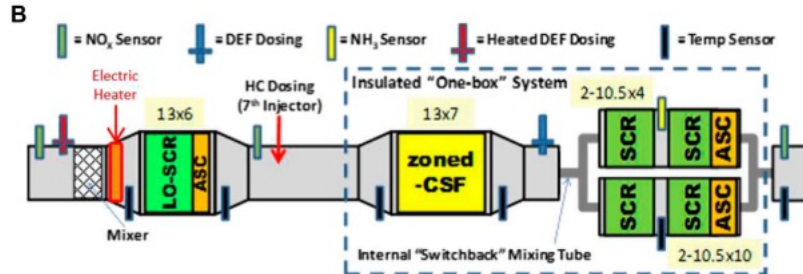
1. Commercially available technology can already meet EPA Option 1 MY2031 proposed standards
2. Benefits exceed costs by 5.3 to 1
3. This rule is a historic opportunity to secure environmental justice for disadvantaged communities

SwRI results: 20-40% compliance margin with Option 1



Closed crankcases are an inexpensive solution widely used by European OEMs to prevent untreated blow-by gases from being released into the atmosphere.

At 2031+ FUL, SwRI tested NOx at 0.031 g/bhp-hr over the composite FTP on the Stage3RW demonstrator (vs. 0.04 g/bhp-hr Option 1 limit)

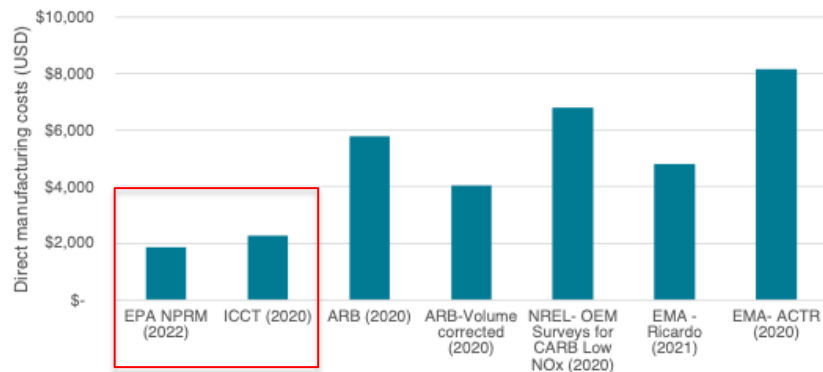


SwRI is also testing the addition of an electrically heated catalyst to the Stage3RW platform.

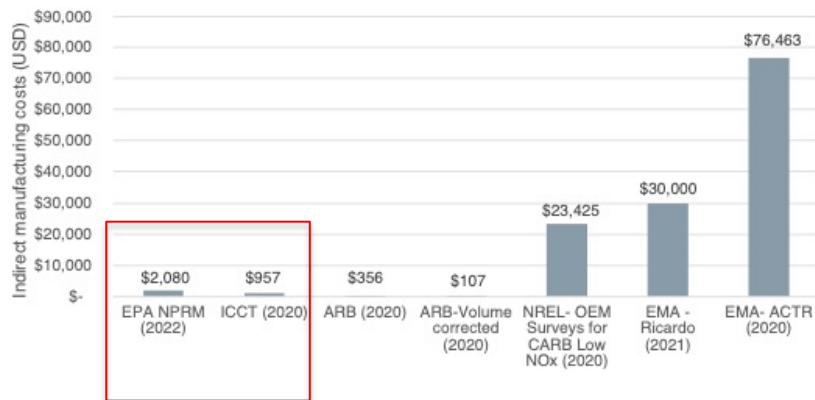
IUL results over the composite FTP show that the compliance margin can increase to 40% vs. the 0.02 g/bhp-hr Option 1 limit.

Cost of compliance to meet EPA Option 1 is reasonable

Direct manufacturing cost, 12-13L engine



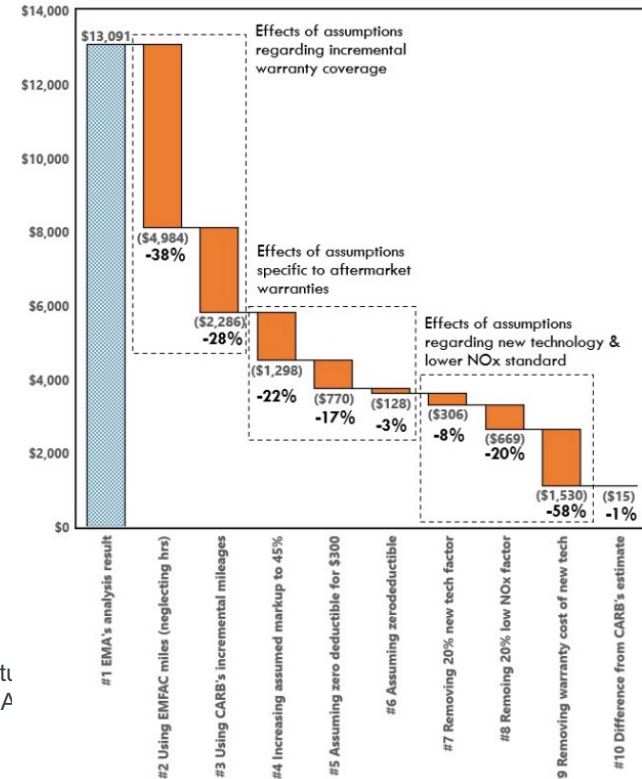
Indirect manufacturing cost, 12-13L engine



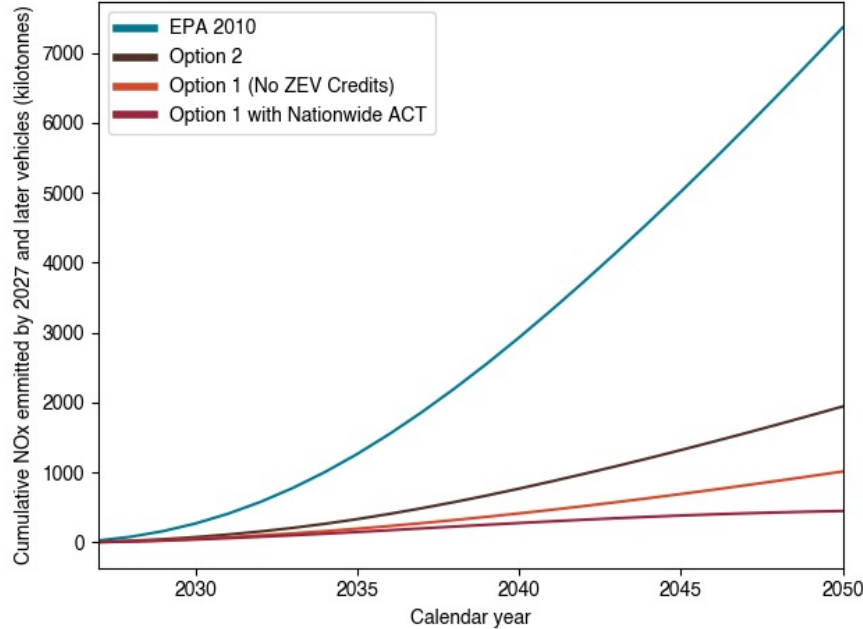
EPA Option 1 MY2031 estimate: \$3,200 to \$3,900
ICCT Option 1 MY2031 estimate: \$2,200 to \$3,200

EMA funded warranty cost estimates are unreasonably inflated, according to CARB

- CARB and EMA reasonably agree on cost 'per mile covered'
- CARB assumes no additional cost to cover 40% of owners who already purchase warranty voluntarily
- EMA assumes 45% markup, zero warranty deductible
- CARB assumes investment in product durability to reduce warranty claims, and not mid-life product replacement
- Other differences



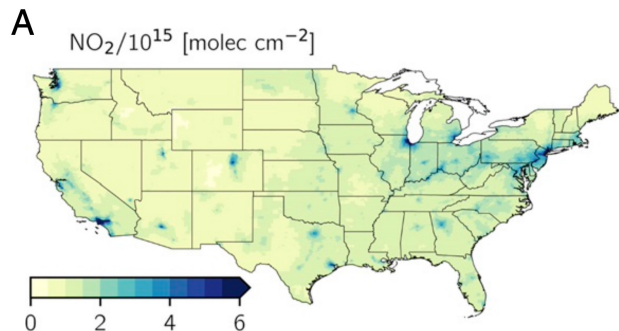
Option 1 will decrease NOx emissions by more than 6000 kilotonnes



- ZEV proliferation at the rate of a Nationwide ACT will further decrease NOx emissions
- Removing ZEV crediting decreases emissions when ZEV proliferation is high

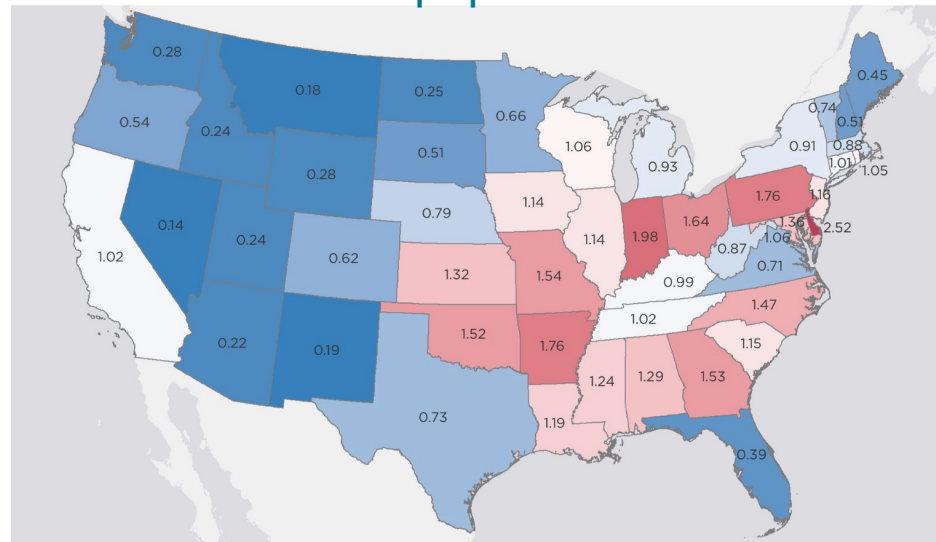
EPA Option 1 is needed to address exposure disparities in the United States

‘... targeting NO_x emissions from heavy-duty diesel vehicles is likely the most effective strategy for reducing disparities nationwide.’
- Hunter et al. (2021)



Kerr, Gaige Hunter, Daniel L. Goldberg, and Susan C. Anenberg. 2021. "COVID-19 Pandemic Reveals Persistent Disparities in Nitrogen Dioxide Pollution." *Proceedings of the National Academy of Sciences* 118 (30): e2022409118.
<https://doi.org/10.1073/pnas.2022409118>.

EPA Option 1 monetized health benefits relative to national population



Ratio of the share of monetized health benefits in 2035 to share of population



Meyer, M. (2022). Will EPA's proposed clean truck emission standards deliver environmental justice in the United States? Washington, DC: International Council on Clean Transportation. Available at <https://theicct.org/epa-truck-standards-environmental-justice-jun22/>

Questions



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ON CLEAN TRANSPORTATION



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