

- **To:** Chair Nichols, California Air Resources Board
- cc: Jason Crow, Joe Dalum, Peter Christensen; Jack Kitowski, Patrick Chen

## Subject: Odyne Systems Comments: Proposed 2018-19 Funding Plan for Clean Transportation Incentives

Dear Chair Nichols,

Odyne Systems LLC, a developer and manufacturer of plug-in ePTO and hybrid drive systems for medium and heavy-duty vocational vehicles, is pleased for the opportunity to offer comments to the above referenced proposal. Our advanced plug-in hybrid and ePTO technology has been demonstrated to reduce fuel use and CO2 emissions by 41% to 64% and NOx emissions by up to 90% for typical full-day duty cycles of the vocational vehicle. Our comments focus on the HIVP and Low NOx Engine Incentives, specifically HVIP incentives for ePTO vehicles.

Odyne Systems supports the following aspects of the proposal:

- Revised funding for ePTO's based on battery system sizes and work site performance
  - We agree that this revision will help ensure that ePTO systems optimize engine off time resulting in maximized emission reductions.

- Funding levels to cover up to half of the incremental cost of the ePTO

- We believe that the proposed funding recommendation will provide an appropriate incentive in the adaptation of ePTO technologies resulting in the continued reductions in off-cycle emissions within the vocational vehicle segment.

In general, Odyne supports the continuing evolution of ePTO incentives as a component of the efforts to meet California's clean air objectives. We suggest that, to this point, the HVIP handbook has constrained the definition of ePTO to aerial bucket trucks and suggest that further efforts be made to expand the ePTO definition to all applications to which jobsite idle elimination could be applied.

We look forward to continuing to work with the ARB on the evolution of ePTO incentives and future funding plans. Please feel free to contact me with any questions or further information needs.

Best Regards,

Jak RPala

John Petras Director, Business Development Principal Investigator Odyne Systems, LLC