IMET's Comment on Proposed Amendments to the Regulation to REDUCE EMISSION OF PM and NOx from In-Use On-road Diesel Trucks/Buses. (CARB's 15 day Rule-Making Request for Comment)

To: California Air Resource Board, Clerk
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IMET's Comments on CARB's PM-NOx Emission Regulation Proposed Amendment:

- **Comment 1:** Please **change** the requirement of 1995 & older diesel trucks **from** meeting the EPA-2010 emission regulation by engine-upgrade, **to** meeting the "2007 (PM-NOx) emission regulation by muffler retrofit technology" by IMET-GreenPower "DPF- H-EGR" system, Award Winning Technology for Ocean Going Vessel.(see the technology introduction below & p.2-theoretical review section)
- **Comment 2: Do not scrap diesel trucks/equipment too prematurely.** IMET GreenPower retrofit system using engine-oil additive can extend useful life-span of old truck engines by 10-20 years or longer, while reducing PM-NOx emission from now.
- **Comment 3: Do not wait for NOx emission benefit until Jan 1, 2023. Enforce the PM & NOx law now. IMET-GreenPower Muffler retrofit system can reduce NOx by 40 % and PM by 90% now.**.
- **Comment 4: Repeal the EPA-2010 NOx law. Re-define NOx-BACT** for reasons below:
  1. **NOx is not toxic gas to human health.** The recent study in Europe by Dr. Ole Raaschou-Nielson et al; (The Lancet Oncology 14(9) (2013) pp 813-822) showed **no association between lung-cancer and NOx concentration.**
  2. Byproducts of Urea-SCR are toxic gases of ammonia and N2O, and they are so easily generated **when the catalysts are simply aged after many years of use in the field.** Dr. Rim noticed toxic byproducts of ammonia and N20 in the air quality of the ports of Los Angeles and Long Beach at night. Extremely low (98%) NOx reduction by Urea-SCR once politically popular cannot be NOx-BACT for the USA. New NOx-BACT level should be 40-70% as US-2007 or VERT's.

GreenPower Muffler-PM & NOx reduction system & CARB's truck verification status:

GreenPower Muffler is a new game-changing retrofit technology that reduces both PM and NOx, and saves fuel-economy from all types of diesel engines including such vehicles as solid waste collection vehicles (Exemption (c)), all old diesel engines, cargo handling equipment, equipment, drayage trucks , locomotives, Commercial Harbor Crafts and Ocean Going Vessels.
The GreenPower system was invented & developed by Dr. Julius Rim in Michigan, and tested in Japan and California*-**.
IMET GreenPower "DPF-H-EGR" system received CARB's conditional approval for marine engine test protocol. The similar conditional approval for trucks application is expected soon.

Note: * The test report prepared by an independent engine test lab in California and supported financially by the Port of Los Angeles for Ocean Going Vessel, showed actual reduction of PM by 90% and NOx by 32-34%.(Test report* is available upon signing the NDA).
** IMET's truck durability test was conducted for almost 2 years under the CARB's Executive Order C-503-1 in the ports of Los Angeles and Long Beach. Old class-8-trucks after retrofitting with GreenPower Muffler retrofit kit became clean-emission –like new or 2007 (PM-NOx) law compliant. Truck's engine performance was also improved by use of GreenPower-Oil Borne Catalyst. (please see the GreenPower Muffler-theoretical review in p.2.)

For NOx regulation in the USA, "the cure is worse than problem itself.- Julius J. Rim, Ph.D

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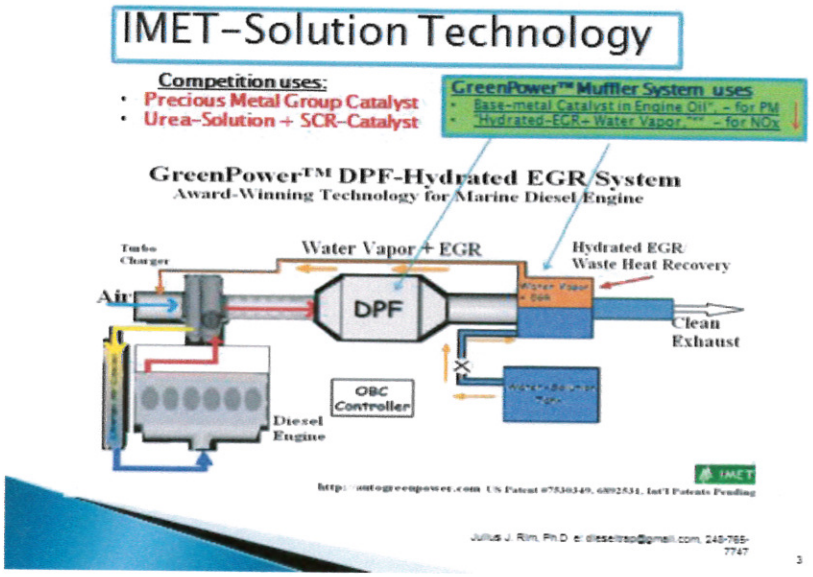
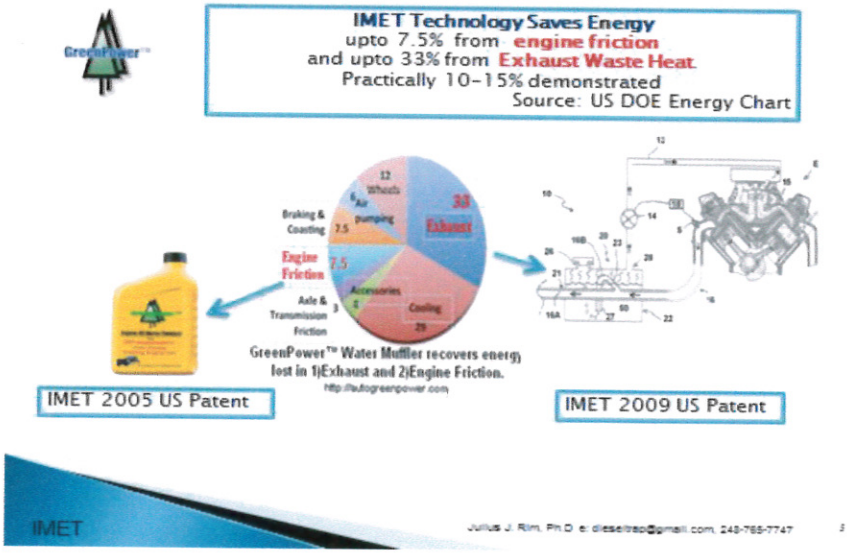
P.2 **IMET-GreenPower™ Muffler (DPF & Hydrated-EGR with Waste-Heat Recovery) can reduce PM & NOx and improve fuel-economy & Reduce cost by upto 20%-**
(50% of theoretical Maximum per DOE's engine energy waste chart).
(Ref: Mazda's de-NOx, SW RI's D-EGR, Emulsion-Fuel, Hydrogen by Water-electrolysis)





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