



BIODIESEL — GREEN COMMITMENT OF INDIAN RAILWAYS

GREEN INITIATIVES & RAILWAY ELECTRIFICATION

OCTOBER 27-28, 2017

BIODIESEL ASSOCIATION OF INDIA

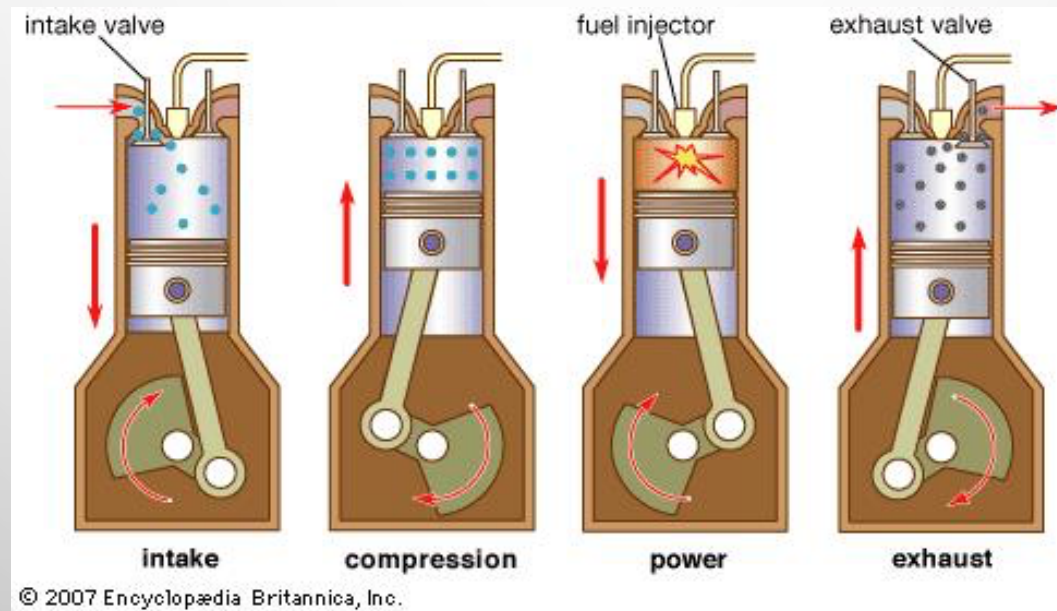
ABOUT BIODIESEL



- **BIO-DIESEL IS A FATTY ACID METHYL ESTER (FAME), FOR USE IN COMPRESSION IGNITION ENGINES DESIGNED FOR USING STAND ALONE FUELS OR AS A BLEND STOCK FOR DIESEL FUEL (IS15607:2016)**
- **THE MAIN FEEDSTOCK BEING USED IN INDIA IS PALM STEARIN (BYPRODUCT) AND SMALL QUANTITIES OF ACID OILS, FATTY ACIDS, TBO'S AND USED COOKING OILS.**
- **BIO-DIESEL IS AN ENVIRONMENTALLY FRIENDLY FUEL, WHICH HAS ALMOST NO SULPHUR, NO AROMATICS AND HAS ABOUT 10% BUILT-IN OXYGEN & BIO-DEGRADABLE IN NATURE.**
- **THE HIGHER DENSITY OF BIODIESEL RESULTS IN MORE CALORIES PER LITER RESULTING IN SAME POWER OUTPUT DURING THE FIELD TRIALS**
- **BIO-DIESEL HAVING HIGHER CETANE NUMBER IMPROVES THE COMBUSTION. BIO-DIESEL BESIDES HELPING IN REDUCING THE AIR POLLUTION, IMPROVES LUBRICITY OF LOW SULPHUR DIESEL FUELS REQUIRED FOR MEETING EURO III & EURO IV EMISSION NORMS.**
- **BIO-DIESEL IS SAFE TO HANDLE AND THE FLASH POINTS OF BIO-DIESEL ARE HIGHER THAN THE CONVENTIONAL DIESEL.**
- **BLENDED OF BIO-DIESEL WITH DIESEL WOULD RESULT IN THE REDUCTION OF UN-BURNT HYDROCARBONS, CARBON MONOXIDE AND PARTICULATE MATTER IN AUTO EMISSIONS, AND WILL BE IN LINE WITH THE OBJECTIVES OF THE AUTO FUEL POLICY OF THE GOVERNMENT.**

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WORKING OF DIESEL ENGINE



FEEDSTOCK AVAILABLE

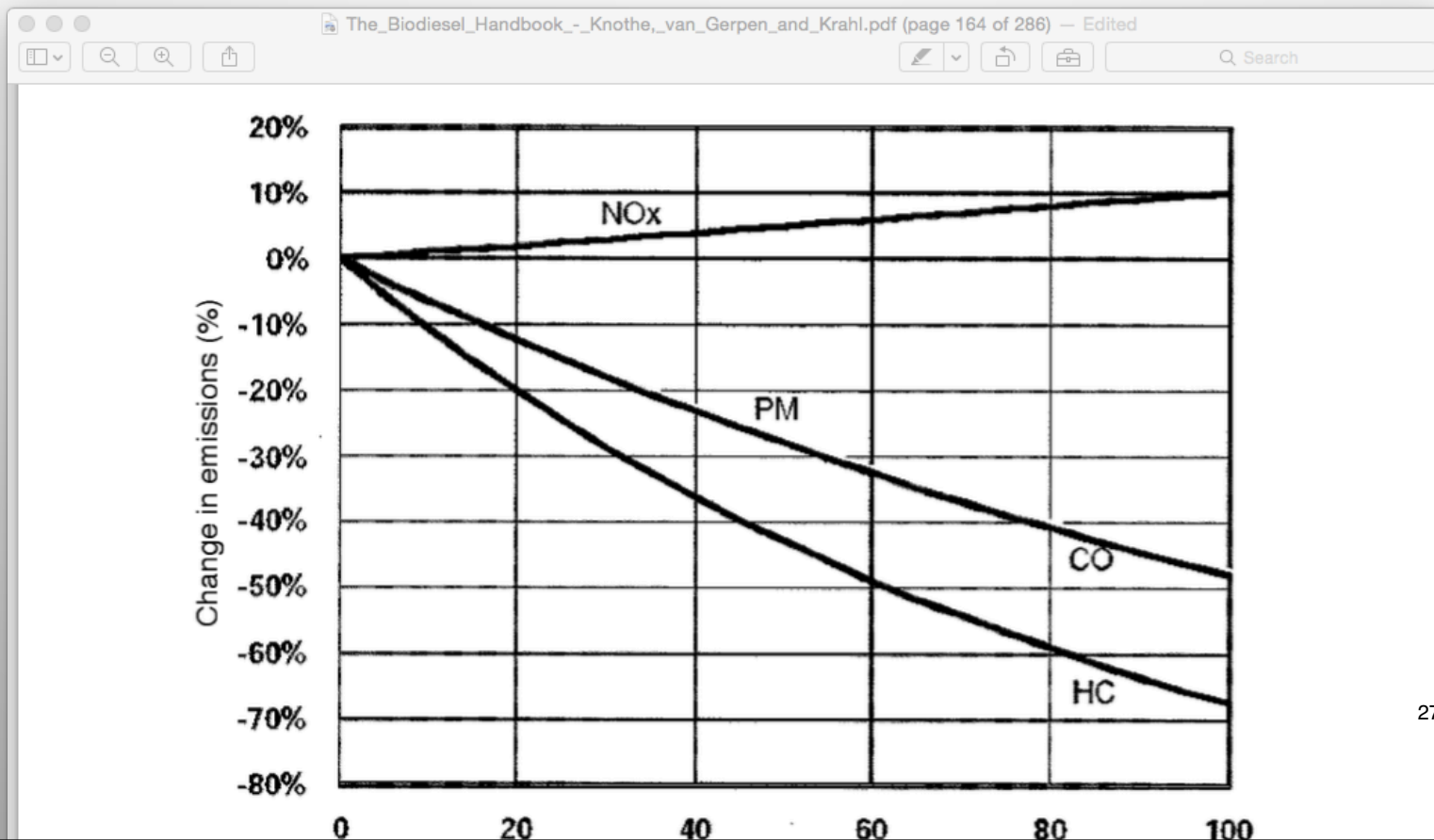


- USED COOKING OILS OF ABOUT 4MN TONS FORM 23.8MN TONS VEG OILS
- TBO'S (WILL BE THE LONG TERM SOLUTION)

FEEDSTOCK IN THE INTERIM PERIOD

- PALM STEARIN(MAIN FEEDSTOCK)
- FATTY ACIDS (SPECIAL PROCESSING REQUIRED)
- ACID OILS (SPECIAL PROCESSING REQUIRED)

EMISSION DATA



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FUEL POLICY



- THE BIO-DIESEL PROGRAMME GOT A RENEWED THRUST WHEN HON'ABLE MINISTER FOR RAILWAYS, GOVT. OF INDIA IN HIS BUDGET SPEECH IN JULY 2014, ANNOUNCED USAGE OF BIO-DIESEL UPTO 5% OF TOTAL FUEL CONSUMPTION BY RAILWAYS.
- THE UNION CABINET DECISION DATED 16TH JANUARY 2015 ALLOWING DIRECT SALES OF BIODIESEL BY PRIVATE MANUFACTURERS AND THEIR AUTHORIZED DEALERS TO CONSUMERS.
- NATIONAL MISSION TO REDUCE IMPORT DEPENDENCE BY SUBSTITUTING 10% CRUDE WITH BIOFUELS.
- MOPNG LAUNCHED BLENDED BIODIESEL ACROSS 4 METRO CITIES IN THE COUNTRY ON THE 10TH AUGUST 2015
- GAZETTE NOTIFICATION DATED 10TH AUGUST 2015 BY MOPNG AMENDING THE MS/HSD CONTROL ORDER OF 2005.
- GAZETTE NOTIFICATION DATED 11TH APRIL 2106 BY MORTH ALLOWING USE OF B100
- EXCISE DUTY CONCESSION ON BIODIESEL FEEDSTOCK BY THE MINISTRY OF FINANCE IN OCT 2015 AND MAY 2016
- 18% GST CAUSED ADDITIONAL BURDEN OF RS.10 PER LITERS ON RAILWAYS CAUSING MOST TENDERS EXPIRING WITHOUT FINALISATION

KEY ISSUE AT RAILWAYS



- BIODIESEL HAS BEEN SUCCESSFULLY INCUBATED
- ROBUST INFRASTRUCTURE, SOME SUPPORT NEEDED IN TERMS OF
 - TESTING FACILITIES
 - TANKAGE
- ECONOMICALLY & ENVIRONMENTALLY BENEFICIAL
 - THE PRICING CONCEPT NEEDS STANDARDISATION
 - PVC COULD BE CONSIDERED
 - FEEDSTOCK COULD BE BENCH MARKED



Biodiesel
Association of India

- THE BIODIESEL ASSOCIATION OF INDIA (BDAI) IS A NON-PROFIT NATIONAL ASSOCIATION REPRESENTING THE BIOFUELS SECTOR, AND IN PARTICULAR THE BIODIESEL INDUSTRY AS THE CO-ORDINATING BODY FOR MARKETING, RESEARCH AND DEVELOPMENT IN INDIA TO ENCOURAGE BIOFUELS, ESPECIALLY BIODIESEL AND ASSURE SUSTAINABLE AGRICULTURAL GROWTH, RURAL DEVELOPMENT, ENERGY SECURITY AND EQUAL OPPORTUNITY FOR THE MASSES WITH OVERALL ENVIRONMENTAL PROTECTION. WITH ABOUT 80 MEMBERS INCLUDING IOCL,BPCL,HPCL, RIL, EMAMI, RUCHI, UOP, KRPL, BIOMAX AND OTHERS.

WHAT NEXT

- INDIAN RAILWAYS- THE SUCCESS STORY
- PROLIFERATE BIODIESEL ACROSS THE BULK USERS
- THE RETAIL REVOLUTION IS BEING SPEARHEADED BY THE OMC'S



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THANK YOU



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