



Indian Diesel Engine Manufacturers' Association

India Genset Engine CPCB IV+ Regulations

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IDEMA Technical Committee



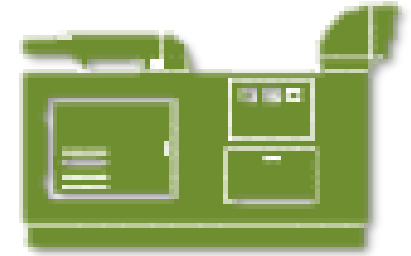
Indian Diesel Engine Manufacturers' Association

- Affiliated to Confederation of Indian Industry (CII)
- In existence for >50 years
- Support legislators in formulating new rules for IC engine Industry in India
- Committed to deliver Technologically feasible, Cost-effective, Safe and Environmental friendly engine solutions for the nation
- Members are from Non-road and Stationary IC Engine Industry *(includes engines for Construction Equipment Vehicles, Agricultural Tractors, Power tillers, Combined Harvesters and **Stationary Gensets**)*



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Summary Highlights

- ✓ Most stringent in the world for emergency stationary engines at this point
- ✓ Aligned with *Government of India's Sustainable Development Goals (SDG)**
- ✓ Drafted with due considerations for Indian circumstances
- ✓ Technological leap from its predecessor regulation (CPCB II)
- ✓ Harmonized in most power ranges with global regulations
- ✓ Fuel Agnostic (covers variety of Gaseous, Liquid and Blended fuels)

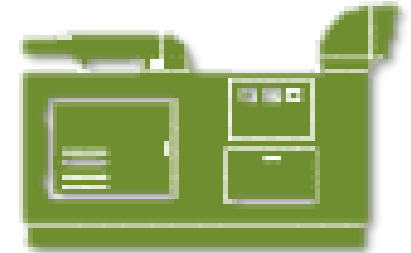
*<https://www.niti.gov.in/overview-sustainable-development-goals>



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Polluting Gensets – Press Articles



American Journal of Respiratory and Critical Care Medicine

Home > American Journal of Respiratory and Critical Care Medicine > List of Issues > Volume 183, Issue 10

Generator Diesel Exhaust: a Major Hazard to Health and the Environment in



Entertainment Lifestyle Technology Videos Sports Audio Educa

Home / Cities / Delhi / Diesel gensets turn off as measures to fix pollution crisis come into effect

Diesel gensets turn off as measures to fix pollution crisis come into effect

HT Hindustan Times

28°C

World Mumbai Entertainment Cricket Lifestyle

NEW 2022 Trending Quickreads Daily Digest Festivals Quiz

Home / Cities / Gurugram News / Areas with diesel generators more polluted: Study

Areas with diesel generators more polluted: Study

Renewable Energy > Press Releases



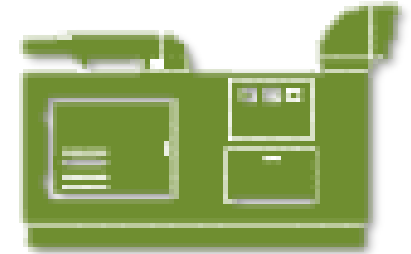
Use of Diesel Generator (DG) sets increases pollution by over 30 per cent in residential societies in Gurugram, finds CSE's new study



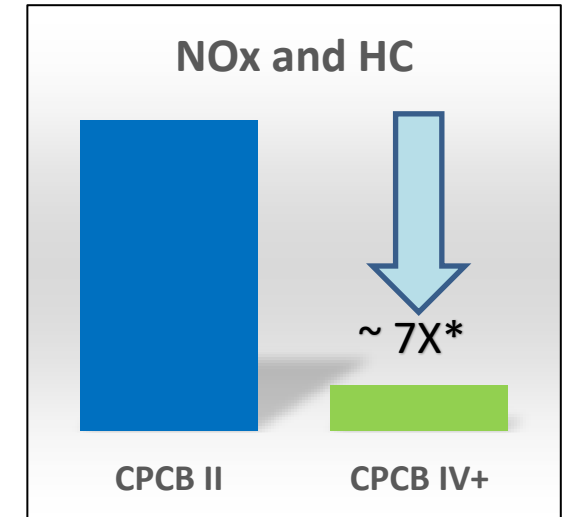
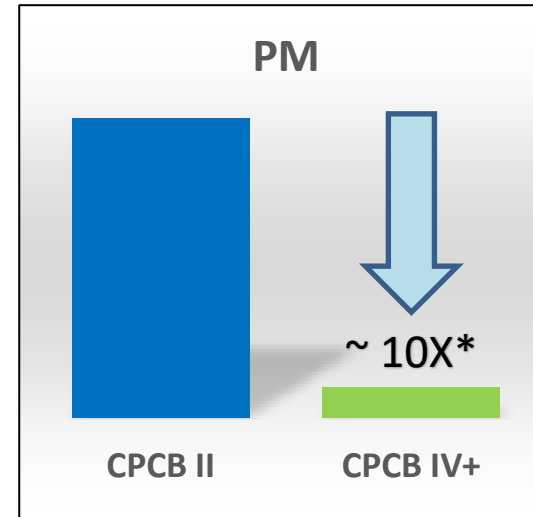
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Emission Reduction – Best Ever it could be



- Globally most stringent**
- Market ready – almost similar hardware exists for On-road
- Advanced engine software strategies adopted



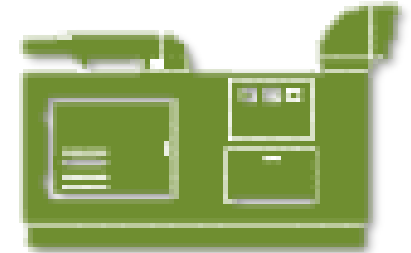
* Maximum reduction in pollutants across multiple engine power category

** For emergency stationary engines as on date

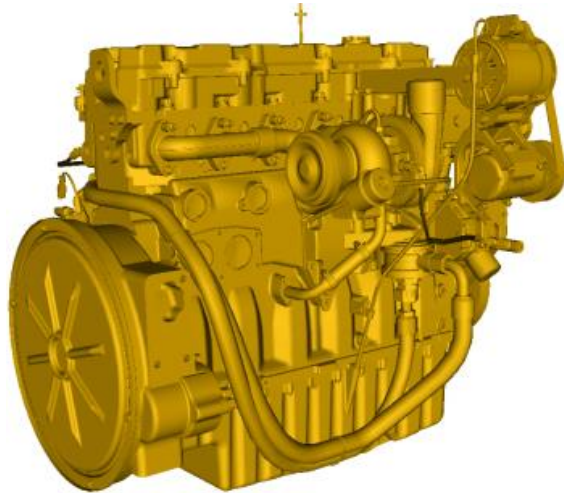


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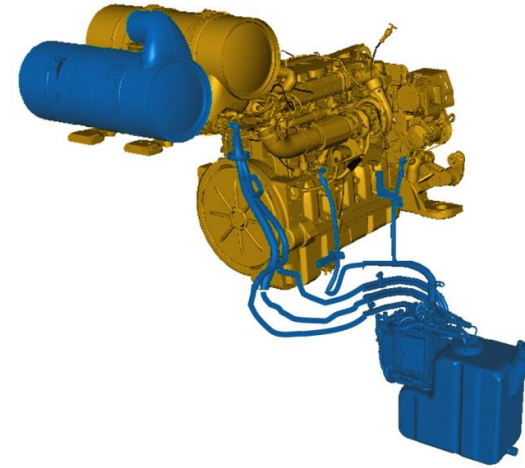
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Technological Leap



Smart Tech



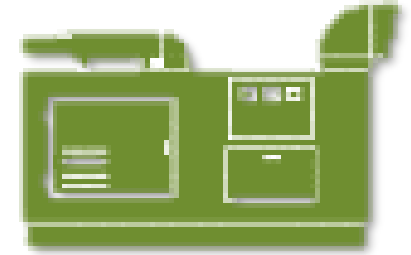
- **Basic/Minimal electronic controls**
- **No After treatment**
- **Diesel engines need not have Ultra-Low sulfur diesel (15 – 500 ppm)**

- **Smart electronic controls**
- **Combinations of After treatment (DOC, SCR, EGR, DPF)**
- **Diesel engines must run on Ultra-Low sulfur diesel (<15 ppm)**



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Fuel Agnostic – Anything that burns

- Safety requirements
- Future ready
- Test protocols
- Test conditions
- Fuel specifications



Petrol



Bio-Fuels



+

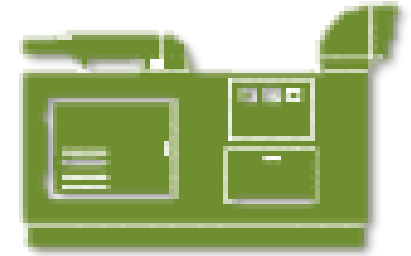


Fuel Blends

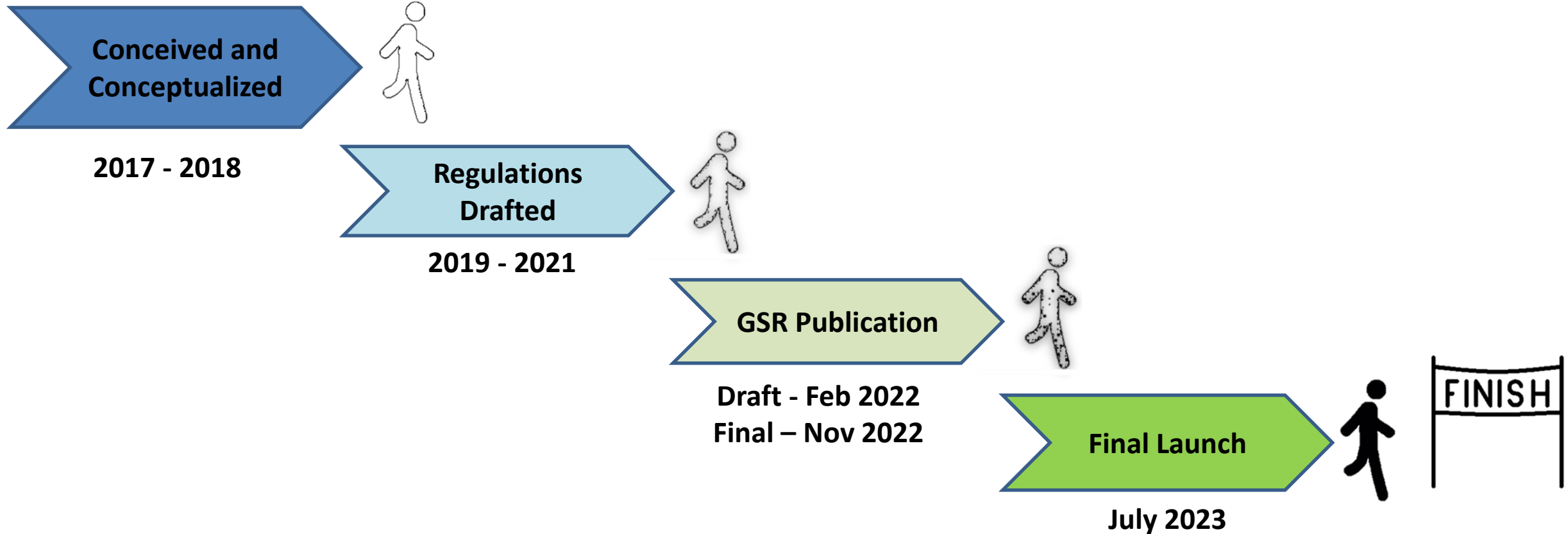


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Timelines and Gates





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Thank You



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- Back-up



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Current CPCB-II norms (wef from 1-Apr-2014)					CPCB-4+ norms (wef from 1-Jul-2023)						
Power Category (kW)	CO	NOx + HC	PM	Smoke @ all loads	Power Category (kW)	CO	HC+NOx	NOx	HC	PM	Smoke @ all loads
	gm/kW-hr			1/m							
P ≤ 19	3.5	7.5	0.3	0.7	P ≤ 8	3.5	7.5	-	-	0.3	0.7
					8 < P ≤ 19	3.5	4.7	-	-	0.3	0.7
19 < P ≤ 75	3.5	4.7	0.3	0.7	19 < P ≤ 56	3.5	4.7	-	-	0.03	0.7
							4.7	-	-		
75 < P ≤ 800	3.5	4	0.2	0.7	56 < P ≤ 560	3.5	-	0.4	0.19	0.02	0.7
					560 < P ≤ 800	3.5	-	0.67	0.19	0.03	0.7