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OPINION

Greener Power Solutions: Retrofitting Diesel Generators For Responsible Energy Use

January 14, 2025 / Anmol Khandelwal

As a backbone during black-outs, diesel generator engines have been providing key power supplies to residential points and factories. Diesel generators are now emerging as a symbol of running a responsible business in the growing awareness regarding air quality. Government requirements and innovative retrofitting solutions help convert the diesel generators into cleaner, more efficient power sources.

Diesel Generators Turning Out to Be Indispensable in the Modern Power Need Era; The generator sets run on diesel, which are critical to several industries that require uninterrupted power; however catastrophic are their emissions to air as they account for 17 to 18% of the total pollution in towns, according to the calculation of the National Clean Air Program (NCAP). Discussion has often been lit on their part. Usually taken as a critical backup source for energy, these now have, a pathway towards responsible and sustainable functioning.

Government Initiatives: Making easier to comply with for cleaner power; In fact, to breathe cleaner, CPCB had provided neat procedural guidelines for retrofitting diesel generators with certified Retrofit Emission Control Device (RECD). The devices reduce pollutant emissions like particulate matter (PM), carbon monoxide (CO), and hydrocarbons by 70%-90%.

RECD is best supported by the government in the conformity to emission norms, though dryly federalized rules. A state like Delhi NCR is a good example for other neighbors, as it acts to complement the above with a ban on all non-permissible DGs during heavy air pollutions as part of its earlier Graded Response Action Plan (GRAP).. Such measures encourage sustainable operations while safeguarding businesses' energy needs.

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Cleaner Air Through Innovation: The Case for Retrofitting

Retrofitting diesel generators with RECDs, such as the Chakr Shield, is a win-win solution. These devices ensure compliance with CPCB regulations, reduce pollution, and enhance the overall sustainability of operations. Importantly, certified retrofitting guarantees accountability and aligns with the government's vision of reducing air pollution across urban centers.

Organizations opting for uncertified retrofits risk undermining the broader agenda of responsible operations. Certified solutions not only deliver measurable results but also build trust with stakeholders, customers, and regulatory authorities.

Exploring Renewable Energy Alternatives

While diesel generators remain indispensable in many scenarios, renewable energy sources like solar and wind power are gaining prominence. Hybrid systems combining diesel with cleaner fuels or battery storage offer a balanced approach, reducing emissions while maintaining reliability.

Successful Strategies: GRAP and Mumbai's Leadership

• GRAP in Delhi NCR: Banning non-compliant DGs during critical months has proven effective in reducing pollution levels, showcasing the potential of strict enforcement.

• Mumbai's BMC: The Brihanmumbai Municipal Corporation's proactive monitoring and initiatives highlight the importance of local leadership in promoting cleaner operations.

These examples demonstrate how collaborative efforts between governments and businesses can drive meaningful change.



Why Responsible Operations Matter; Diesel generators have powered progress for decades, and now they're leading the charge toward sustainable operations. By retrofitting with RECDs and exploring renewable energy options, businesses can:

1. Ensure Regulatory Compliance: Stay aligned with government mandates like CPCB's guidelines.

2. Improve Air Quality: Contribute to reducing urban air pollution.

3. Strengthen Sustainability Goals: Build a reputation as a responsible organization committed to clean energy practices.

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