

Safety Power Inc. clean essential energy

# Remote Commissioning Exhaust Systems



Safety Power Inc. has remotely commissioned several ecoCUBE® SCR systems for hyperscale data center projects in the United States. The ability to remotely commission and support equipment allows Safety Power to

continue to ensure that customer's schedules are realized, even when under extremely harsh COVID restrictions. All of Safety Power's systems have the capability of remote commissioning. Each system can be configured to have a SIM card and operate over LTE, when allowed by the customer, for real-time data collection and diagnostics after installation. Remote commissioning can even be performed without an internet connection (for customers that don't allow an internet connection) using an innovative technique.



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# **Hospital Installation – Over 36,000 Run Hours**

A 1.5 MW Natural gas engine was outfitted with an ecoCUBE® reactor in December 2015 and has been in operation for over 36,000 hours. Since then, the catalyst material was replaced only once in the five years of operation. This is a near-continuous application of an SCR system in tandem with a natural gas engine. The addition of the ecoCUBE® emissions system was needed to ensure compliance with the local emissions standards for NOx which requires less than 25 ppmd at 15% oxygen.

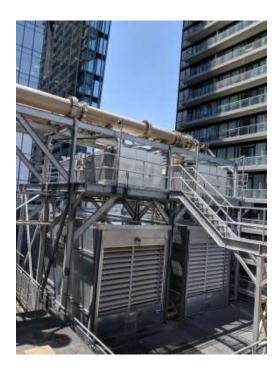
Safety Power's extremely compact ecoCUBE® SCR system is mounted on the engine ISO enclosure along with a heat exchanger, radiator, ductwork, and a stack. Maintenance is simple with easy access to all of the serviceable components located on one side. In addition, the unit was mounted on the far edge of the ISO enclosure so that technicians could access the components using a small man lift.



## **City Center Low Noise Installation**

Safety Power has completed a two-engine installation (2 x 2MW diesel engines). The installation is right up against residential building balconies. Using an innovative design Safety Power was able to comply with the overall sound target of 58 dB at the edge of the building (~ 26 ft). This ecoCUBE® SCR system also includes, integrated oxidation catalyst, integrated silencing modules and a DPF system. To achieve the sound target, considerable engineering was completed to predict the breakout and exhaust sound pressure losses. Safety Power has extensive in-house acoustic modelling experience and trained professional engineers to predict insertion losses for our equipment.

These systems are being used as part of a demand response program. In addition, the ecoCUBE® systems were installed to allow greater flexibility over the location of the exhaust stack as the emissions are being treated directly at the source. Urban environments generally require careful considerations to be made for all engine emissions including noise; Safety Power has a proven track record in delivering solutions for these types of projects.



### ecoCUBE Video

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### **How SCR Works**



We hope that you found this information both useful and interesting. If you have any further questions or comments regarding any of the above information, Safety Power would be glad to help, please don't hesitate to call or email!



Sincerely, Bob Stelzer, CTO Safety Power Inc.



Safety Power's ecoCUBE® product line is designed to meet all of the major global emission regulations including: Tier 4 Final and Euro Stage V.