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# Roof-Mounted Retrofit – Kohler KD1650 Generator with KD45V20 Engine

**Engine Size**  
1650 kW

**Sector**  
Mission-Critical / Infrastructure

## Project Overview

This large-scale retrofit involved 60 Kohler KD1650 generator sets powered by KD45V20 engines. The project's main requirements included achieving 95% NOx reduction, maintaining acoustic levels under 65 dB(A) @ 1m, and fitting a compact SCR solution into a rooftop installation.

## Solution Provided

E.I. Williams/IMS modular SCR system are pre-wired and pre-mounted on a single skid with integrated silencers for ease of installation. As a result, the solution required only electrical and communication connections, streamlining the installation process. DEF tanks were strategically positioned alongside the fuel tanks, optimizing the rooftop space.

## Visual / Instalation Photos



## System Specification

Generator	Kohler KD1650
Engine	KD45V20
NOx Reduction Requirement	≥ 95%
Noise Target	Noise Target: ≤ 65 dB(A) @ 1m
Installation Constraints	Installation Constraints: Rooftop, limited footprint
DEF Tank Placement	DEF Tank Placement: Be-side main fuel tank
Connectivity	Connectivity: Power + CanBus signal
Access	Access: Swing gates, protective rails, removable lid for catalyst inspection

## Results & Impact

NOx Reduction Achieved	98%
Noise Level	< 65 dB(A) @ 1m
Installation Time	Fast-track installation due to simplified hook-up
Serviceability	Easy catalyst inspection with dedicated access hatch
Safety	Maintenance-safe with rails and swing gates included

If you have any questions, please reach out to us at [info@eiwilliams.com](mailto:info@eiwilliams.com) or **(905) 428-0950**