GenSet Locomotive Fact Sheet

About GenSet Locomotives

- A conventional locomotive is retrofitted to a Genset locomotive by removing the large, single diesel engine and generator. Three smaller EPA certified, ultra-clean diesel generators are fitted onto the platform, along with control and operating equipment. The resulting GenSet locomotive automatically powers up 1 to 3 of the smaller engines to produce only the power needed to pull the required load.
- GenSet locomotives are used to switch cars within rail yards and can also be utilized for road switching service. GenSet locomotives monitor engine idling and automatically shut the individual engines off or to a "sleep" mode after a period of inactivity.
- GenSets achieve an impressive 80%+ reduction in nitrous oxide (NOx) and particulate matter (PM) emissions, in addition to up to 50% CO2 savings capability in switching and road switching service.
- GenSet locomotives are significantly quieter than existing locomotives; they achieve the most stringent noise level requirements for off-road capital equipment.
- In contrast to existing locomotives, GenSets can be started up as quickly as a truck engine, avoiding the need to leave engines idling for long periods of time.
- GenSets utilize an engine load sharing system which evens out the wear and tear between each engine to reduce maintenance requirements by 35% or more.
- GenSets are certified as ultra-low emissions locomotives; they meet and exceed all current EPA railroad emission standards for locomotives (Tier II).

GenSet Locomotives on the CSX Network

- CSX currently has eight GenSets in operation - four in the Barr Yard located in Riverdale, IL, and four in the Rougemere Yard in Dearborn, MI.
- The GenSets retrofits were purchased through a public-private partnership with funding from a Congestion Mitigation and Air Quality (CMAQ) grant. This grant calls for 20 percent of the required funds to come from the private sector, with the remaining 80 percent coming from the public sector.
- The GenSet locomotives retrofits were performed by a Mt. Vernon, IL-based company – National Rail Equipment Company.