
Real-Life Stories

# Case Study: Generalized Emissions

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## BUILDING TOMORROW: SWAPPING GAS FOR BATTERY-POWER

***Pilot Program Brings Cordless Electric Tools and Equipment to a New York City Jobsite in Pursuit of Net Zero Emissions***

Globally, the construction industry produces 38% of the world's total $CO_2$ emissions annually[1] . Due to the vital importance that infrastructure plays across the globe, the industry continues to grow. In fact, some experts estimate that by 2030 the global volume of construction output will grow by 85% – a rate that translates to roughly $ 15.5 trillion[2] . This is great news for construction companies, but also underscores the importance of paying attention to the impact construction contributes to emission pollution.

As the move towards creating more sustainable jobsites gains momentum, industry organizations and governing bodies are working to take steps towards mandates and many companies are setting goals for a 50% reduction in their emissions by 2030.

According to the Environmental Protection Agency (EPA), equipment regularly used within the construction industry – such as equipment that uses traditional fossil fuels – can significantly harm public health and the environment. When you consider that just one (1) gallon of gasoline burned creates approximately 20 lbs. of $CO_2$ [3] (the same as driving 22 miles in a gas-powered vehicle), it's clear that the construction industry will continue to be a large player in emission pollution whilst relying on fossil fuels to power equipment.

While corded power tools don't directly utilize gas, they are frequently used during the initial phases of construction when electrical power is unavailable. Consequently, they are powered by a gas generator, resulting in the same negative environmental effects as gas-powered equipment.

| CONCERNS<br>Associated with Gas & Corded Tools | OPPORTUNITIES<br>Possible with Battery-Powered Tools |
| --- | --- |
|  **WORKER & COMMUNITY WELL BEING** | ■ Reduction in Noise<br>■ Lower Vibrations<br>■ Improved Ergonomics<br>■ Reduced Traffic (No Fuel Runs) |
|  **JOBSITE SAFETY** | ■ Eliminated Cord Tripping Hazard<br>■ Reduced Risk of Fire (Due to On-Site Fuel Storage) |
|  **ENVIRONMENTAL SUSTAINABILITY** | ■ No $CO_2$ or Exhaust Emissions<br>■ No Mixing Gas or Oil |
|  **COST, TIME & LABOR** | ■ No Priming, Choking or Pull Starts<br>■ No Fire Permits Required<br>■ No Gas, Oil Supply and Maintenance |

**Milwaukee Tool partnered with a mid-sized New York concrete specialist company, employing over 200 field laborers and subcontractors, to conduct a six-month pilot program focused on creating a fully cordless jobsite.**

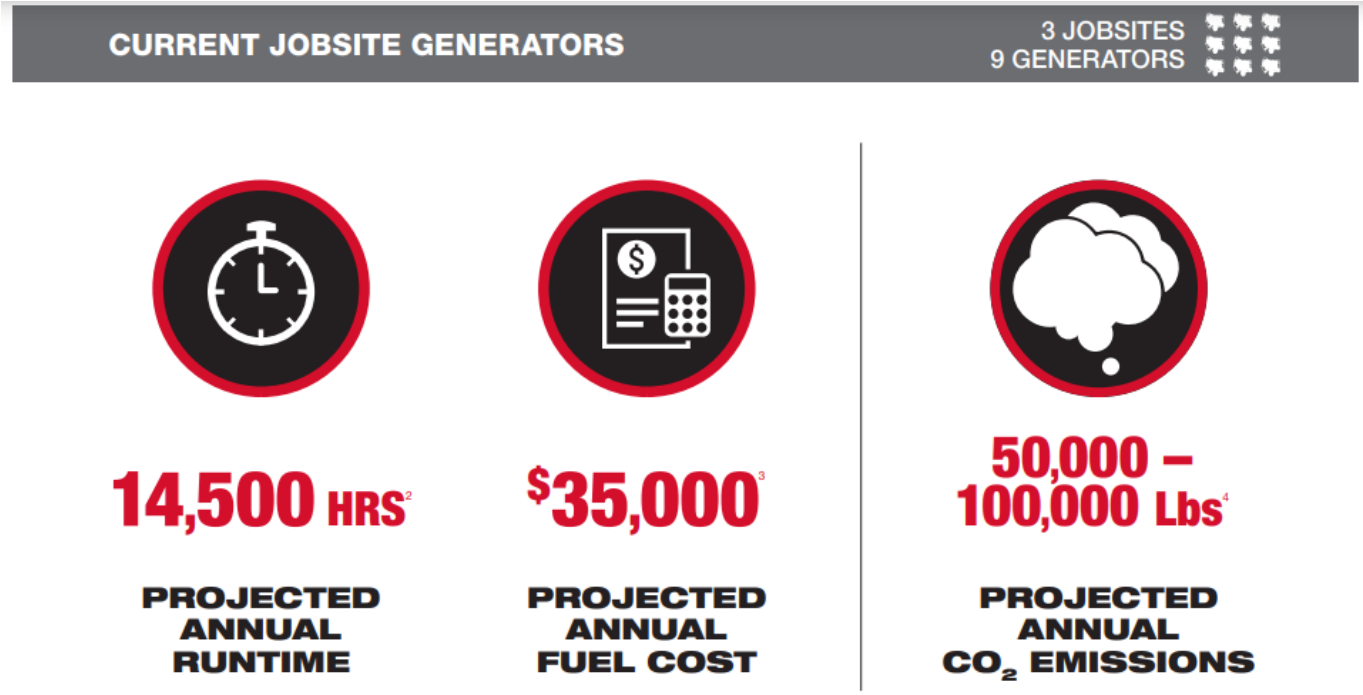
The first step in the program was pure observation. The MILWAUKEE® Jobsite Solutions team got on-site with the contractors to observe the type of work being done, what tools were being used and how often those tools were in use throughout the day. The second step was to collaborate with the MILWAUKEE® Engineering team to build, install and track gas generator usage on the target jobsites. These two steps established the metrics for the success of the program.

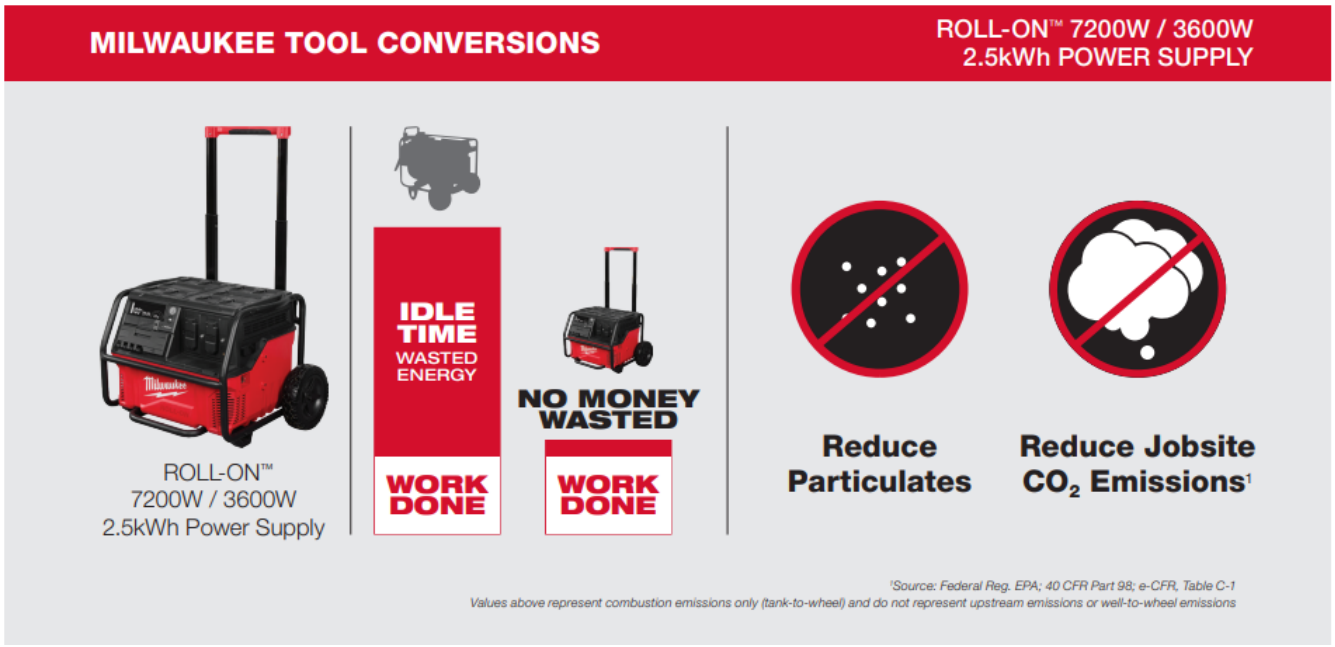
Could Milwaukee Tool's cordless solutions meet performance, productivity and safety needs and reduce emissions from the jobsites?

Operating with roughly 90% corded power tools and all gas-powered small equipment, the company worked with MILWAUKEE® to replace their current tools and equipment with MILWAUKEE® cordless M18™ and MX FUEL™ solutions on active projects.

Through the Cordless Jobsite Pilot, the company sought solutions that could:

- Eliminate the risk of inhaling harmful fumes for both tool operators and bystanders
- Operate safely indoors and in enclosed spaces like trenches and vaults
- Function effectively on remote sites without access to electricity
- Minimize vibration and noise for the user
- Lower maintenance and fuel costs associated with gas-powered motors




As the six-month pilot program wrapped up, superintendents were more than ready to start implementing cordless MILWAUKEE® solutions on the jobsite permanently, especially after hearing from their people using the tools and equipment every day. The company continues to invest in the adoption of cordless MILWAUKEE® solutions on their sites with the hope of having a cordless site strategy for all future projects.

MILWAUKEE® has been leading innovation in battery-powered tool technology for nearly two decades.

As MILWAUKEE® progresses on its sustainability journey, it continues to disrupt the fossil fuel power tool industry, providing users with innovative solutions that reduce reliance on gas and emissions on

jobsites throughout the country.

*Download PDFs of the entire case study here and here.*

*Browse cordless power tools from Milwaukee on MSCDirect.com.*