



# **WORKSITE PERFORMANCE SOLUTIONS: DRIVING SAFETY, PRODUCTIVITY AND SUSTAINABILITY**

Helping Customers Optimize Worksites to  
Maximize Performance

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## Introduction

On large worksites, time is more than money, it's a competitive edge. Identifying ways to work more efficiently and effectively while meeting key goals helps companies stay ahead of the curve, especially in the face of skilled workforce shortages.

People and equipment have always been essential to bringing projects to completion on time and on budget, but in the age of digital technology, another player has emerged as pivotal: the worksite itself.

Today's most productive, profitable worksites are connected worksites. The data they generate gives companies unprecedented control, enabling more strategic decision-making and unlocking opportunities to streamline and automate processes. For larger enterprises, they simply make sense.

United Rentals is committed to helping large customers create next-generation connected worksites through a portfolio of offerings called Worksite Performance Solutions™. This diverse group of equipment, tools, services and solutions improves worksite performance by connecting people and equipment through data. Customers can choose to deploy any number of the offerings across projects to realize significant tangible benefits.

Read more about Worksite Performance Solutions, what it encompasses and what it means for companies looking to maximize their success.

# Worksite Performance Solutions

In today's intensely competitive construction, manufacturing and industrial environments, companies must innovate to stay on top. United Rentals developed Worksite Performance Solutions in response to customers' desire for tools to help them increase safety, productivity and sustainability.

Worksite Performance Solutions adds to the company's existing core offerings: the world's largest fleet of rental equipment and specialty solutions for every project phase.

The end goal is not the digitally powered worksite itself but the results it enables. United Rentals collaborates with each customer to identify practical solutions that pay off at scale, maintaining a relentless focus on outcomes. Often, these solutions catapult customers toward their goals by introducing new ways of working.

## The value of a connected worksite

Today, next-generation connected worksite technology is capable of linking nearly every part of a worksite, from the perimeter gate to the back office. The data it produces can be game-changing. Companies can leverage it to help ensure that:

- The right people enter the site
- The right type and amount of equipment is on site
- The right people are using the equipment and using it properly
- The equipment is fueled or charged and ready to go
- The equipment is maintained efficiently and effectively

Data from a connected worksite can also help companies:

- Optimize the labor force
- Reduce fuel consumption and greenhouse gas emissions
- Shrink tool loss
- Monitor worker safety

## Total Control®: The heart of it all

Underpinning Worksite Performance Solutions and the efficiencies it enables is Total Control, United Rentals' cloud-based worksite management platform. Total Control does more than gather and process data from across the worksite; it renders the data actionable through reports, interactive maps and other tools, and it unlocks the power to streamline and automate processes.

United Rentals has spent decades evolving the platform to make it more valuable and easier to use. Today Total Control helps companies maximize the value of people and equipment and provides unique tools, such as the groundbreaking Estimated Emissions dashboard.

With Total Control at its center, Worksite Performance Solutions drives performance in three main areas: productivity, safety and sustainability. Learn more about each in the following pages.



## Worksite Performance Solutions: Enhancing Safety

Elevating performance begins with augmenting safety. After all, productivity improvements that compromise safety aren't improvements. Worksite Performance Solutions tools offer novel ways to enhance worker safety and site security, and in turn, keep projects moving forward at pace.

### Worksite access management

Access management is one of the most important areas in which United Rentals is innovating solutions for its customers.

Busy, high-traffic construction, industrial and other worksites are potentially dangerous environments, which makes the worksite perimeter the literal frontline of any safety program. United Rentals offer several products to help secure the perimeter as well as sensitive buildings and hazardous areas, including fencing, vehicle access control and the latest addition, smart turnstiles.

These modular units, available with one to 10 lanes, integrate with fences and contain a card reader. To move through, workers swipe or tap an ID badge equipped with a radio-frequency identification (RFID) tag. Entrants are authenticated via third-party workforce management solutions that issue badges for site access.

Turnstiles increase visibility and accountability by creating a readily accessible digital log of who entered the site, building or area. In the event of an emergency, real-time entry and exit data can be searched to facilitate a faster, more effective response.

## Equipment access management

While most large companies have some type of site access management solution in place, the same cannot be said about equipment access management. Preventing unauthorized operators from using equipment is undeniably a critical step in reducing accidents and mitigating liability, yet on sprawling worksites, it's easier said than done.

Keypad ignition locks, available on thousands of United Rentals machines, are one effective answer. Universal PINs can at times be administratively burdensome on some projects, however. Assigning badge-based access from United Rentals represents a cutting-edge alternative.

United Rentals is leading the industry in offering a single-badge solution for both worksite access management and equipment access management. The same badge used at entry points provides equipment access based on user profile data, which may include operator training and certification. To unlock equipment, operators swipe their badge on a card reader added to an ignition keypad lock.

Equipment access privileges can be assigned by trade, by group or by individual, and for specific pieces of equipment or for equipment category classes.

Badge-badged equipment access management further enhances safety by providing accurate real-time and historical insights into equipment usage, including who was operating the machine when a safety incident occurred. Workers who misuse equipment may be identified as candidates for additional safety training.

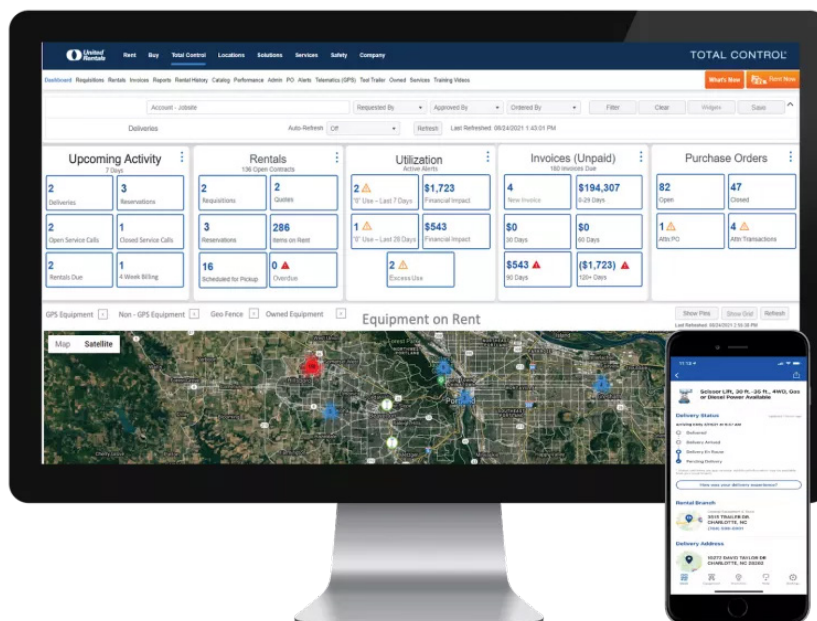
If a company needs to revoke a worker's right to access equipment or the worksite, changing the permissions assigned in the worker profile restricts access immediately.



# Worksite Performance Solutions: Maximizing Productivity

Worksite Performance Solutions offerings combine to provide a complete view of how well a worksite is performing and reveal hidden opportunities to maximize uptime and derive more value from equipment. When people and equipment perform at the highest level, breathing room can suddenly appear in the schedule and budget.

Connected worksite technology drives productivity gains by reducing equipment-related downtime, optimizing utilization and streamlining processes.



## Maximizing equipment uptime

Equipment is an investment. The more downtime it experiences, the less return it delivers. Telematics holds the key to reducing planned and unplanned downtime through improved maintenance and proactive alerts.

Implementing and sustaining an effective preventive maintenance program is challenging, especially when equipment is moving from worksite to worksite. Odometer readings and engine hours provided by telematics devices enable companies to perform just-in-time preventive maintenance, which keeps equipment in top operating condition while helping to ensure that it's neither under-maintained nor over-maintained.

Customizable diagnostic alerts enabled by Total Control further reduce equipment downtime. With low-fuel, low-charge and low-DEF alerts, for example, companies can keep equipment continually ready to operate without manually checking the status of each machine. United Rentals' service teams leverage the same telematics data and service alerts, as well as engine fault codes, to perform maintenance on its equipment to better serve customers.

## Optimizing utilization

Every piece of equipment on a project should work hard to deliver maximum results—but not too hard. While under-utilization threatens the bottom line, over-utilization can result in breakdowns and productivity losses due to lack of equipment availability.

Total Control users can open the United Rentals Mobile App to find each piece of rented telematics-enabled equipment on a map and click to see when it was last used. They can easily generate utilization reports that help them track and manage utilization to optimize fleet type and fleet size.

When it comes to optimizing tool utilization, United Rentals offers a variety of solutions that boost productivity at the same time. These include:

- Bluetooth tag systems managed through Total Control
- ProBox OnDemand™, an access-managed connected tool storage box that automates tool tracking and alerts managers when tools don't make it back to the box
- Supplies OnDemand, an automated, access-managed storage and distribution system that provides 24/7 access to PPE, consumables and parts

## Driving automation

The lion's share of money spent on projects is spent on people. Helping them work more efficiently is central to maximizing output. Automation is one of the fastest routes to increasing operational efficiency.

How does a connected worksite enable automation? With smart turnstiles and other digitally connected access management solutions, the worksite itself takes over the role of authenticating entrants, freeing security personnel to perform other tasks. Similarly, badge-based equipment access management reduces time spent assigning PINs to each worker. It also streamlines payroll processes and reduces administrative overhead by automatically generating attendance data.

United Rentals' connected worksite technology also automates the process of calculating carbon emissions generated by equipment. More on that feature in the next chapter.







## Worksite Performance Solutions: Increasing Sustainability

Many large companies and project owners are setting sustainability goals and striving to meet them without compromising productivity or profitability. Connected worksite technology has a considerable role to play in helping them report their emissions and meet their emissions targets.

Working as a deeply integrated partner on large projects, United Rentals guides customers in identifying the most practical approaches to lowering emissions using advanced tools and connected equipment.

### Emissions tracking

Engine usage data from telematics devices help companies measure—and therefore manage—greenhouse gas emissions. For telematics-enabled owned and rented equipment, Total Control provides engine hours, fuel consumption and other data used to calculate emissions for sustainability reports.

In 2023 United Rentals launched the Estimated Emissions dashboard, which automatically calculates the estimated metric tons of carbon dioxide equivalent produced by equipment on the worksite. It saves countless hours for companies that typically perform these calculations manually.

The first-of-its-kind dashboard presents easily digestible, shareable data that simplifies reporting and drives decision-making. Data includes current and historical estimated carbon emissions from individual pieces of equipment, equipment category classes and even worksites. Dynamic data visualizations highlight key information such as the year-over-year emissions and the worksites and equipment category classes with the highest emissions.

Insights into the specific pieces of equipment and equipment types that produce the most emissions on a particular worksite provide targets for improvements. Companies can consider substituting alternatively powered equipment for their biggest emitters when feasible. United Rentals' fleet includes a wide array of electric equipment, cleaner-burning generators, stand-alone batteries and battery energy storage systems.

## **Battery energy storage systems**

Connected worksite technology connects people and machines. It also connects machines and machines. A hybrid power system is a prime example, one that helps drive sustainability results.

These systems, which pair a portable power generator and a battery storage system (BESS), allow companies to significantly downsize their generators, reduce their reliance on petroleum-based diesel fuel and dramatically shrink their fuel spend. The generator charges the BESS batteries as it runs, and the BESS carries the load on its own when the load is low.

United Rentals has taken the bold step of partnering with equipment manufacturers to develop innovative, plug-and-play hybrid power solutions for its customers. Some of the newest offerings designed for large customers include the Hipower EHR Solar Battery Generator microgrid and a battery energy system designed to power a tower crane.

## **Remote environmental monitoring**

Companies often waste considerable fuel, at considerable cost, running temporary HVAC equipment. One more way to curb fuel use and resulting carbon emissions is through remote environmental monitoring.

Environmental monitoring from United Rentals uses wireless sensors placed in strategic locations to continuously measure and record temperature and humidity and even concrete maturity and ground thaw. Users can access this information from a computer or smartphone. Alerts sent via text or email notify them when levels exceed predetermined thresholds. Adding WEDGE Smart Climate Control to HVAC equipment allows users to remotely adjust the thermostat using the WEDGE dashboard.

Remotely monitoring and adjusting heaters yields productivity and safety benefits in addition to sustainability benefits. It reduces the number of onsite personnel required to monitor environmental conditions and eliminates the need for them to climb stairs or ladders or otherwise make their way to the heaters at night.

# Conclusion

As the needs of its customers evolve, so does United Rentals. Worksite Performance Solutions positions United Rentals as the one-stop-shop partner equipped to assist large companies in realizing greater safety, productivity and sustainability through digital technology.

The unique portfolio represents innovations across the connected worksite landscape. Rather than championing technology for the sake of technology, United Rentals works shoulder-to-shoulder with project managers and owners to identify and implement practical, cost-effective solutions that deliver measurable, repeatable results.

In business sectors from construction to manufacturing to petrochemical, the size and complexity of projects will only increase. Continuous improvement is fundamental to ongoing success. By embracing new ways of working, companies can stay nimble, prepare to respond to novel challenges and achieve unprecedented performance. With Worksite Performance Solutions, United Rentals joins and supports customers on the front lines of these efforts.



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