QUINTIQ

On the utilities horizon

Strategies and tools for workforce management:
A blueprint for solutions

BRAND STUDIO

Managing and scheduling a utilities workforce requires flexibility and understanding of staffing needs both now and in the future. In high-pressure environments where timing, readiness and adaptability are paramount, it is essential to have the right people, equipment and skillsets in place at the right time to keep your operations moving efficiently and your customers satisfied.

But keeping track of all the moving parts in a utilities workforce isn't easy. There are workers to schedule, planned work and customer issues to manage, and equipment, parts and vehicles to account for. Without a holistic understanding of your resource availability, utilities can lose time, money and manpower. The 2015-2016 HR Systems Survey White Paper, released by Sierra-Cedars, cites a number of functionalities that companies demand when it comes to a workforce scheduling solution, including shift rules, task management, certification management, project management, activity management, workload management and compliance or labor law.

"Companies continue to be challenged to comply with complex pay and overtime rules, and

now companies must ensure that employees are trained and qualified to perform various technical tasks they may be asked to complete," says Doug Utley, partner at ScottMadden, Inc., a management consultancy that specializes in the energy space and has a dedicated human capital practice.

Workforce scheduling software solutions, he notes, can assist utilities in managing workloads, spreading tasks and work orders among available employees in an optimal way and reducing overtime requirements. "Moreover, the ability to manage workload can avoid situations where employees are extended beyond reasonable rest periods," Utley says.

Combining full visibility and control over people, projects and other resources with the ability to harmonize decision-making across the long -and short-term horizons, as well as on the day of operations, ensures that utility companies are successful in understanding the big picture while they reduce overstaffing and increase efficiency and utilization rates.

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Planning ahead

Having a 12-plus month line of sight on the demand for resources like workers and equipment is a boon for utilities. "You have to take resource availability into consideration for any infrastructure development, new service areas that might be covered, or other expansion plans," says Doug Pollard, sales director of the Quintiq Workforce Business Unit.

"Whatever is driving their long-term growth or shrinkage," Pollard says, can be integrated into the planning. More often than not, human resources departments manage long-term hiring forecasts, but adopting workforce planning and scheduling software that extends from the long-term horizon through the day of operations can help utilities better understand future demands on a more granular, or even day-to-day level. Any department that is deploying people who have a rotating schedule, which tends to fall under more operations-focused departments, Pollard notes, is where utilities encounter the most surprises, and situations crop up that they weren't expecting.

One of those unexpected situations is the changing nature of employee skillsets. While it's always a positive to have an employee move up, whether through promotion or new certifications, utilities often have difficulty factoring this into their longer term schedules and plans. Workforce scheduling software, however, can foresee these status changes before they occur, and make sure these ripple effects are accounted for in an operations plan.

Further, if a company plans to hire a large number of employees within the next year to meet staffing needs, workforce scheduling software can account for the training those employees will need during their first year of service. "They might be pulled out of the field for a week or two weeks, or every other month — and that can trip planners up," Pollard says.

ScottMadden's Utley adds, "These same applications can help ensure that employees have the right certifications to perform various tasks

and currency in tasks they perform. These applications also ensure the right mix of skills is brought to bear on complex work packages or outage projects."

Conversely, a comprehensive software solution with good forecasting functionality also has the capabilities to factor in the attrition rate of a utility. Those in charge of creating schedules may not have the visibility into specific attrition rates, and whether they are trending up or down, Pollard explains.

Another unexpected situation that can impact workforce planning and scheduling is one that most utilities do actually expect — outage situations like storms or downed utility lines. "You never know when they're going to happen," Pollard says, "but you know they will happen, and you have a fairly good idea of how often these situations occur in the different areas of your grid."

Without a solution that can take into account all of the people factors, as well as the tools and resources needed for jobs, hard costs like forcing overtime, or requiring additional contract work from outside of the organization — which comes at a premium — can bring down the level of a utility's service and drive up their operating costs exponentially.

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Optimizing utility potential

Using workforce planning and scheduling software allows utilities to put contingency plans in place that account for the reshuffling of resources as priorities in your business change. In addition, it provides a way to schedule planned work, such as maintenance and customer support, into workflows and ensure that they are staffed with the right resources. Costs are reduced with considerations of pairing the best skillsets and equipment to improve fix time and costs. And while these long-term factors can't be dismissed, it's also important to look at needs in the short term as well.

One of the ways workforce scheduling software offers utility planners the ability to optimize their potential is by running through the thousands of different scenarios that can affect their workforce and their bottom lines, and gauging the effects across all of their planning horizons.
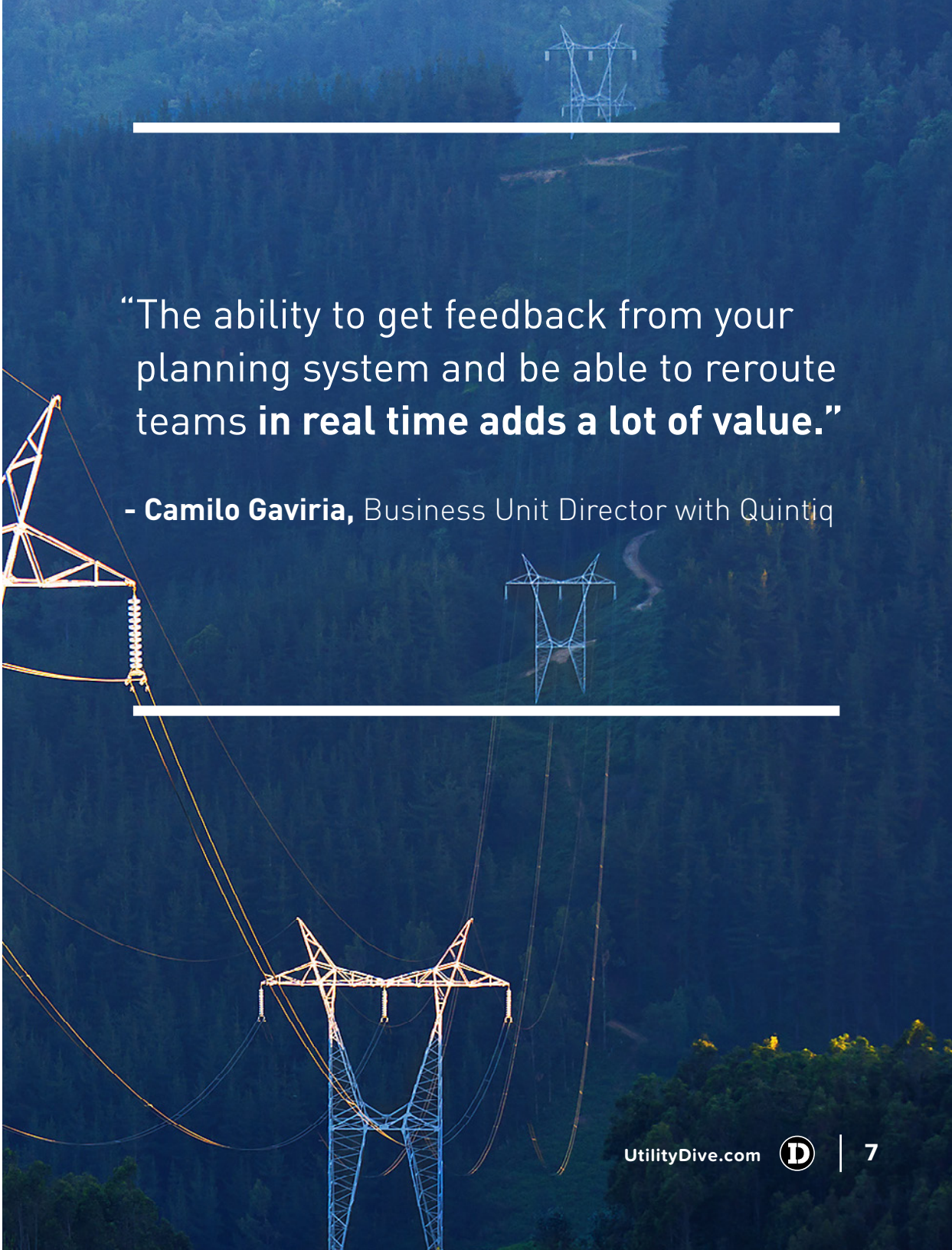
"If you buy 10 more trucks next quarter, or hire 50 more staff, you can see how that will affect your ability to be responsive to new situations on the ground and the additional capacity or constraint, it will put on your resources," Pollard says. "Workforce scheduling software, particularly a platform with optimization built in, empowers planners to analyze scenarios that look at how changing one factor might affect your costs, your response time, or any of your other key performance indicators." These scenarios home in on the ground-level effects of your plans to see how longer-term decisions can trickle down to your day-of-operations execution, he adds.

Better planning of field logistics is another benefit that utilities should be considering as a key factor in reducing operating costs. Pollard notes that several companies use the Quintiq platform to optimize the routing and schedules

of their vehicles to increase efficiency and lower transportation costs. "They don't plan a driver's next stop until he arrives at the current one and checks in. Within seconds the system plots out the next optimal route, which saves money on both time and fuel."

"The ability to get feedback from your planning system and be able to reroute teams in real time adds a lot of value," says Camilo Gaviria, Business Unit Director with Quintiq, based in South America, where utilities often face un-disclosed route closings, or roads that face particular regulations in order to travel them. "Given the complexity of the geographies and regulations we operate around, this added value helps utilities better react to disruptions in their operations."

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The benefits of mobile applications

While utilities can create detailed plans for a project, unexpected events and issues can often knock those carefully crafted plans aside. Having a mobile application that ties directly to a core planning platform allows utilities to leverage real-time information from the field to manage disruptions and adjust on the day of operations.

"We're starting to see the actual integration of work instructions and relevant critical materials in mobile solutions," Gaviria says. "So a maintenance operator can see not only where they need to go and what tasks need to be carried out, but also what materials and tooling need to be available and delegate through online tools what should be deployed in the field." If any of these resources become unavailable, the planning system optimally reacts ensuring the feasibility of the instruction issued to the operator increasing his efficiency."

Mobile solutions also empower workers by giving them the ability to remotely request sick leave or vacation, and select or bid on their preferred shift schedule. Managers can then approve this leave on their own mobile device, see how it affects their schedules, and assign new staff to fill the affected shift.

"The convenience of mobile applications can greatly increase employee satisfaction," Pollard says. "If one of the goals of an organization is to reduce employee attrition rate, the better tools you give them, the more real-time access you provide to control their own schedules, the better off you'll be. It gives people more control over their own work environment."

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-Doug Pollard, Director, Quintiq Workforce Business Unit

Conclusion

"Though workforce management software has great potential, companies should be aware of important cautions," advises ScottMadden's Utley. "To be effective, scheduling time, skills and other data must be in the system. Companies will depend on the currency and quality of these data to fully realize the benefits of workforce management."

However, when utilities take measures to bring all of these crucial data points into their workforce planning and scheduling solution, the results can mean up to a 20% increase in the efficiency of their operations. Integrating planning across all time horizons offers utilities an opportunity to gain complete control over their resources, better respond to demands in the field, and greatly reduce the cost of their operations. Having the full visibility of people, projects and other resources like equipment and vehicles that workforce scheduling solutions provide allows utilities to stay ahead of their staffing needs now and in the future.

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QUINTIQ

The Quintiq planning and scheduling solution allows utilities to maximize the potential of their workforce by integrating all planning processes into a single platform. Decision makers gain full visibility and control over the entire workforce planning process – from long-range capacity planning to daily task scheduling and real-time rescheduling. Quintiq's 100% fit configuration accounts for all labor rules, union agreements, skillsets, and requirements unique to your environment to increase efficiency and lower operating costs.

Learn more about what the Quintiq solution can do to improve your utility workforce today by visiting **www.quintiq.com**

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