Data science and utilities: It takes two to make data-driven decisions

By Tom Martin
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The year 2022 was big for data science implementations and success in the utility industry. That's because utilities are buying, implementing, and using data-science solutions in increasing numbers, with growing confidence, efficiency, and urgency, as they face the challenges and embrace the opportunities presented by the moment at hand. This moment is one keenly felt by all utilities. They're juggling multiple priorities—decarbonization, reliability, equity—all while facing downward cost pressures and increased public scrutiny.

Data science and utilities: The great convergence is near

It won't be long before the proven benefits of data science are part of the narrative uniting all utilities in their quest to become more environmentally responsible and reliable.

Read more in Tom's article, Data Science and Utilities: The Great Convergence is Near, published by T&D World.

Read the article

If this sounds difficult, that's because it is. But data, and the unlocking of its value via data science, are turning out to be the solution to rising to this challenge. Utilities are indeed having a moment, and with data science, they're getting a taste for how they can meet and exceed it.

How data science is changing the conversation

Last year, we hosted a data science conference with executive leaders from electric, natural gas, and water utilities across the country. But we didn't convene this group to sell anything—instead, we listened as utility leaders discussed their shared challenges and how each is tackling them using data-driven decision support.

The utility industry isn't one to chase the flashiest new object. It's an industry that's careful in its embrace of technology, valuing experience over emerging innovation. But that's where data science is changing the conversation. Data science is no longer brand new or even particularly risky. Just about *every* utility has now stood up some version of an in-house analytics team, whether that's a full-blown group of data analysts or an FTE dedicating some of their time to benchmarking how other utilities are using data to solve a particular problem or set of problems.

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Now that everyone has "a line in the water," the conversation is shifting to "how to catch more fish" with data science. One of the answers, and one we're intimately familiar with, is that teaming with outside resources to accelerate and magnify the positive impacts of data science across use cases is now not only accepted but *preferred*.

Think about it. The advantages of partnering with an expert data science resource to get the most from your data investments are many. First is speed to value. Your data science partner likely has access to approaches—and hands-on experience implementing them—that have worked for your peers. They probably also have knowledge that can streamline the use of data science and AI in your vegetation and storm management, undergrounding, and capital deployment programs and initiatives on the grid-infrastructure side and demand response participation, EV adoption prediction, and data-driven equity program design on the customer engagement side.

Embedded in the speed-to-value benefit is access to best practices. Namely, there's no reason for you to make the same mistakes others have already learned from. An experienced data science partner knows many of the pitfalls *before* you approach them, and that's worth its weight in gold. You get to learn from their innovations while avoiding the pitfalls. Working with a partner who has successfully mastered the process multiple times with your industry peers enables you to be a fast follower.

There are many other benefits to teaming with a skilled data-science provider—a firm ready to augment the talents of your internal team and respect the differences that make your utility unique while also tapping into the commonalities all utilities share in making data work faster and more efficiently in service of your decarbonization, reliability, equity and cost goals. But the good news is that our industry has already realized this.

Ready to get to know data science better?

Fill out this short form to start a conversation about your needs and how we can help.

It takes two

We don't need to sell the idea that great data science is necessary to rise to this unique moment, or that it takes more than an internal team to do this optimally. Senior utility executives already know it takes two because they're already doing it and loving the results.

E Source certainly hasn't built every possible data science solution that every utility might need, but

once a utility has brought in some of our tried-and-true solutions around vegetation, storm, capital optimization—you name it—and laid the foundation for how data-driven decision-making can support the organization more broadly, then internal analytics teams can start rapidly building additional use cases on top of that risk-spend efficiency approach.

The story doesn't end there! Check out Tom's full article, Data Science and Utilities: The Great Convergence is Near, published by T&D World for even more information.

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