

The Experts on Turbines, PSM; Grid Connections, S&C; Distribution Data, Itron

Conversations with Alex Hoffs,
President of Power Systems Manufacturing, a Hanwha Company;
Anders Sjoelin, CEO of S&C Electric;
Tom Deitrich, CEO of Itron



Decarbonization is here to stay, as are the continued technological advancements to get the energy and utilities industry where it needs to be to meet clean energy goals. With so much going on, Public Utilities Fortnightly shares here conversations on the latest on turbines, grid connection, and distribution data.

It's important, as getting to an upgraded grid that can handle more renewables to reach lofty pollution-free goals requires a confluence of well, everything these businesses have to offer. They have much to offer too, as you will read here about these leading companies and the work they are doing helping utilities get where they need to be.

A trio of heavy hitters, but more important, experts, Power Systems Manufacturing President Alex Hoffs, S&C Electric CEO Anders Sjoelin, and Itron CEO Tom Deitrich bring you inside the latest advancements in the clean energy revolution. There is much to discover.

Tom Deitrich Itron CEO

PUF's Steve Mitnick: What most excites you about what Itron is doing with its industry partners?

Tom Deitrich: We have a wide range of partners, a rich ecosystem that helps us change the way utilities and cities deploy technology, as no longer can a utility buy a fixed capability, deploy it, and amortize it over ten or twenty years. The world changes too quickly to do that type of long-term planning.

What is most exciting is helping us, collectively, to have infrastructure that is more agile. The way technology can be deployed still has a certain capability, but you can add to it at the speed of software in a way that allows that capability to adapt and change as the needs change.

The old way doesn't work in a volatile, rapidly changing world. One way to deliver this concept is Distributed Intelligence, which is our solution to provide edge-computing capability.

It's almost like a smartphone concept. Not a consumer device, that's not my point. But the idea of having downloadable applications into an endpoint at the edge of a utility's distribution grid to do different things.

When you bought your first smartphone in 2007, you didn't know that mobile banking was going to be a central part of your life, and today it is. It's integrated. So, when a utility buys an endpoint from Itron, traditionally, they knew they wanted to measure and report something, and that was the capability they had.

Now, with the latest generation of endpoints, the utility can download an application to understand if there's a safety issue, if there has been a meter bypass – somebody's stealing electricity. The utility can recognize if there's an electric vehicle behind the meter, and then contact the consumer to understand time-of-use enrollment.

Utilities can trigger demand-response events through

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applications or understand location awareness. Location awareness allows the utility to know when a particular endpoint is connected to a distribution transformer, and electrically, where does that distribution transformer live in relation to the feeder.

So, you now can start to map and understand in real time what's happening across the distribution grid to make things more efficient for the end consumer and utility. We can save natural resources; we can reduce costs of operation.

A lot of good happens when you develop this agile capability. You can more adroitly cope with volatile weather, changing usage patterns, integration of renewables, and balance supply and demand.

A lot of good happens when you create a more agile infrastructure. That's what I am most excited about. It is certainly a technology play, but it is a fundamental shift in terms of how utilities can interact with the technology deployed to provide a better quality of service in a volatile world.

PUF: If you look at five, six years ago to today, and then say, three years out, how is Itron providing more value to companies and all the players?



The regulatory environment is important in our business and being a resource with industry regulators to be a trusted partner. But it all starts with that notion of integrity and making sure you show up every day with a view to help all of the constituents.

Tom Deitrich: Looking ahead, there are some parts of our value proposition that I don't want to change. What brought us here is a critical part of continuing to be a trusted partner. We want to make sure that what we develop has our utility customers' needs in mind.

What we develop must help the customers holistically, whether it's an efficiency play or with their consumers to help the communities in which they operate, or improve the use of natural

degree view of what's going on around them. That's customers, employees, stakeholders, and investors.

For example, the regulatory environment is important in our business and being a resource with industry regulators to be a trusted partner. But it all starts with that notion of integrity and making sure you show up every day with a view to help all of the constituents.

How do you find your way? You have to be looking three

resources and create more sustainability. That is what the company's been about for forty years and what we stand for. That brand promise, that integrity, is what we carry forward.

What does change though, is making sure the offerings we provide, embody that agility I talked about earlier. When you do that, your business model changes.

How we work with our customers for more co-development, it is longer-term relationships where you are adding incremental capability to a deployed system. We have six million endpoints capable of distributed intelligence in the field today, and that's growing rapidly.

There are tens of millions more in backlog yet to come. There are seven million downloadable applications running in the field today, and more on the way.

More than twenty applications in development with us, with our utility and ecosystem partners, creates this rich future. It allows us to balance the grid in a way that is far more interesting in the distributed energy resource world.

Whether you're talking about integrating renewables in the big generation side or at the edge of the grid, we want to help our utility customers deal with that rapid change and deploy that capability.

That's what I want us to be known for in the years ahead, without disrupting the notion of the brand promise we have today of being a reliable partner.

PUF: How do you figure out where to focus your time and energies within Itron?

Tom Deitrich: It is the vaudeville act where you've got the guy who's racing back and forth trying to keep all the plates spinning. But I view the role of any senior leader to understand a three hundred sixty-

hundred sixty degrees and build a team that's capable of doing that. Trusting in those relationships and working closely to align your needs with those stakeholders is the way you build a resilient company.

PUF: With the IRA and IIJA there're a lot of dollars coming. What role does that have impacting what your technology and services can do for the transformation?

Tom Deitrich: There are two parts to answer that question. First, we asked our customers to understand the needs of utility executives, and the result of that research is available.

We interviewed utility executives all around the country to understand what was high on their minds, and what are our customers' more urgent and unmet needs?

Then reading the IIJA or IRA language and playing matchmaker. What needs do they have? What solution can we provide? Where can you apply the two? And then you align.

It is a complicated set of dynamics. Part of that research I mentioned, one of the toughest parts about all of this is understanding what's in the rules and regulations, how does the money flow, and how do you simplify that?

How do you create that visibility all the way from a particular program and the fantastic investment number of \$1.1 trillion, and create a project aligning specific needs and do that on an ongoing basis?

What's high on the mind of our customers and in our minds is making sure that information is available. Making sure that matchmaking, between customer need and dollars happens, and working with the government officials to try to simplify the process.

Government officials want the money to be spent, that's why it's been allocated, and how do you facilitate that transfer and make it available? What we find, most often, is customers want to gain access to it, but are not quite sure how to line everything up.

Most often customers are not thinking about projects that they hadn't envisioned before, but largely accelerating existing project ideas they had on their roadmap.

These investment programs give them a funding mechanism to allow things to happen a bit faster. Making sure we create that alignment and match is where we spend time and we have allocated a program office to enable that work.

PUF: The grid transformation is going to be tough. What

INSIGHTS INTO IIJA FUNDING READINESS

Signed into law in November 2021, the Infrastructure Investment and Jobs Act (IIJA) aims to drive infrastructure modernization, accelerate the deployment of clean energy, lower greenhouse gas emissions, and increase consumer-driven sustainability efforts. To fully maximize the benefits, utilities need to know what they are eligible for, and understand where IIJA fits in to their organization's goals, current projects, and customer expectations.

To better gauge where U.S. utilities are in this process, and to get a snapshot of overall awareness, interest, and intent to pursue IIJA funding, Itron surveyed seventy-five U.S. utility executives. Survey participants included mid-level managers or higher who have input on decision making in the electric, gas, and water utility space and are responsible for selling products, working in operations, strategic planning, customer service, and/or administrative services.

The survey uncovered that 69% of utility executives intend on pursuing IIJA funding.

Accelerating existing projects (33%) and advancing strategic initiatives (30%) are among the top priorities for utility executives who are interested in pursuing IIJA funding.

For a complete summary of the survey results and insights, download the report at www.itron.com/ijja.

are the biggest challenges people should apply their greatest energies to?

Tom Deitrich: I think it is, where to start to eat the elephant. There are lots of needs, and every community, every utility has a different set of challenges depending on where existing infrastructure is, what their territory looks like, and what the natural environment would be.

What are they up against? Where do you start to eat the elephant? You've got to do it one bite at a time, as that's the only way to chew through it. But where to begin?

It's easy to get focused on one part of a total solution. For example, "we need to get focused on interstate transmission to get renewables into city centers."

That's a real problem and needs to be addressed. But if you do that without also working on how the distribution system can get power to the edge of the city, you still don't have the power precisely where you need it.

The fundamental issue is you can't continue to think, "Hey, we have unlimited one-way push of electricity." Whether the sun is shining on a house or not, or whether this fleet of EVs needs to be recharged, we can't create enough excess capacity to have it always on at peak levels.

We are going to have to have a distribution grid, which is far nimbler to balance, arbitrate supply and demand, and take those localized actions to put the power where you need it.

It means you need a whole-system approach, and thinking your way through that as to how to eat that elephant one bite at a time so you get benefits along the way.

PUF: What do you want the energy and utilities community to think about Itron?

Tom Deitrich: Number one, we are a trusted partner, so when we do a project, we have your interests in mind. We measure our success through the success of our customers.

Second, I want every young engineer who has a sustainable future in mind, to be thinking the best place to work is Itron, because they are truly contributing to the longer-term success of society at large and developing amazing technology.

That is how I want people to think about us. We have the most proven solutions in our space, including smart networks,

software, services, meters and sensors for gas, water, and electricity.

We are solving our industry's most pressing challenges – grid reliability amid the influx of distributed energy resources and mandates for carbon reduction. Our low-voltage management solution enables visibility and control of the grid from the distribution transformer down to the customer premise and beyond.

We have a strong leadership position and look forward to working with customers, ecosystem partners, and regulators to help accelerate deployment of our solutions. 