

BY DOUG SMITH

entral Ohio is the home to the state's capital, Columbus, which is the nation's 14th most populated city. Ohio's state legislature has been grappling with energy policies for decades. In more recent years, the legislature approved a comprehensive energy reduction program, which allows public entities to finance energy efficiency upgrades outside of their normal debt service. To this end, the state offers an energy loan for efficiency projects. In practice, a city, library, or other municipality has the option to tap into this loan fund to enhance their lighting, HVAC, and controls by using the energy savings to pay off the low-interest loan over a multi-year period.



The state legislature allows public entities to utilize another option for energy reduction: public-private partnerships (P3).

Public-private partnerships have been used to make transformative changes in urban areas by building parking garages and refreshing roadways, among others. Since the 2008 recession, a growing number of public entities have been turning to partnerships to bridge the gap between strained public funding and the increasing need for services and improvements.

Ohio's former U.S. Senator George Voinovich was a supporter of these partnerships ever since he was mayor of Cleveland in the 1980s. The then-mayor was one of the first in the nation to implement the P3 model for a variety of public services including water, sanitation, energy, transport, telecommunications, healthcare, and education.

Voinovich outlined four vital factors to successful P3 relationships: asking for help, securing resources, establishing trust, and communicating effectively. When Ohio voters subsequently elected Voinovich governor in the 1990s, he amplified the P3 model throughout the state.

As the P3 model became more popular over the following decade, the state legislature established energy efficiency portfolio standards for the electric utilities in Ohio. This confluence of policy-based events sparked a P3 opportunity, unlike any other.

THE OHIO STATE MODEL

The Ohio State University main campus is nestled directly north of downtown Columbus. With more than 60,000 students and approximately 46,000 staff, this university is consistently in the top three largest schools in the nation. If Ohio State were its own city, it would easily rank in the top ten largest cities in Ohio. With all those people, it is no surprise that the Ohio State Board of Trustees were eager to analyze energy consumption and develop a P3 plan.

When the board began exploring P3 opportunities in 2014, the concept was not foreign to them. In 2013 the board approved a \$483 million P3 deal to let QIC Global Infrastructure manage their parking facilities in exchange for an upfront investment.

With the successful launch of that P3 and approval from state legislation for an energy P3 deal, the board decided to move forward with an RFP.

In early 2017 several companies came to the table and submitted proposals. The winning proposal was ENGIE North America and Axium Infrastructure. Shortly after the project was awarded, The Ohio State Energy Partners, LLC was formed. This group is comprised of representatives from EN-GIE and Axium that own, manage, and execute the agreement. Ohio State set the precedent, and many often refer to a higher education P3 utility management model as "The Ohio State Model".

YEAR THREE

Roughly three years after the P3 implementation, Energy Services Media (ESM) interviewed Scott Potter, Senior Director of Comprehensive Energy Management at Ohio State. Potter's office—under the office of business and finance oversees the ENGIE Axium energy concession agreement, energy commodity procurement, energy partnerships, and energy policy for the university.

ESM: What are milestones that Ohio State and the partners are looking to achieve in 2020?

Potter: Probably the biggest (milestone) for 2020, which may be the biggest for the entire concession agreement, pending regulatory approval, is we expect to start construction on our new combined heat and power plant. This is something that Ohio State has been considering for more than a dozen years, but it was not until we had the P3 deal that we found a way to manage that upfront cost.

It is a very large project that was approved by the board for construction last summer. The total project, which is two projects put together, is more than \$270 million. That construction is expected to start late spring, early summer. Starting construction will be a significant milestone.

Within the last two years, we have achieved several of the energy conservation measures that were a part of the agreement. We wanted the company to help get our campus to our new efficiency goals, but those projects took a year to complete. This will be the first year since the concession was executed that we have a full year to look at the meter and say, "Look, we changed these 100,000 lights, and we upgraded these 14 buildings, and here's a year's worth of meter data to prove the benefit."

ESM: What have been the challenges of the concession agreement, and how did you work through them?

Potter: I think the biggest challenge has been and continues to be integrating a public mentality with a private mentality. Two of the P's (of a P3) are very different. To get the partnership—the third P—to work, you have to figure out how to coordinate the public entity with the private entity. The private entity is accustomed to doing things at the speed of business. A public entity, like Ohio State, is a shared governance body that does things much slower and more methodically.

The shortest-term plan that Ohio State looks at is a fiveyear plan. A single capital project may be three or four years in development before it ever gets approval to go forward for design. Both sides have had to learn how to integrate two mentalities and take the best of both sides without undermining the mission and integrity of either. We are a public institution, so we have to do things publicly, but I think we are managing it well.

- ESM: Looking back at the contract process, was there anything that was overlooked that Ohio State has revisited within the last year?
- **Potter:** Definitely. Fortunately, we expected there would be, even though we spent years on the project and the contract is 2,600 pages long, we knew we would miss something. The current contract is the third amended contract, and we are very pleased with it.

There has not been anything major, but one example is, we realized early on that we did not build in a mechanism for the company to charge us—or for us to charge them—for something that was previously unthought of. We built in this beautiful mechanism for the regular fees and capital investments, but we did not think about the one-off unknowns. In one of the amendments, we put in a mechanism that said we could mutually agree to a payment structure for non-utility items, such as certification and application filing fees.

ESM: How do you handle performance pitfalls or unmet KPIs?

Potter: If you look at our KPIs, we did a few things. One, we limited them. The KPIs are only on the most important measures. When we first started the process and looked at performance standards, our first draft list was over 250 performance standards. Ultimately when the contract was done, we boiled that down to 13 KPIs. It was really for the things that would affect the operations, mission, and the continuity of the university.

Two, we set performance standards up in a way to make missing KPIs potentially very severe, but we also built-in scalability. We have an extremely high-reliability requirement for our power on campus. We require five nines of reliability—99.999% available. That means that if a single building is out for 20 minutes in the course of one year, they may miss that mark.

We also built-in the notion of forgiveness. Everybody misses the mark by a little at some point. So, if there is a minor unplanned outage today, and it is the only one that happens this year on chilled water, it is going to get checked in their box as having an unplanned outage. But there is no penalty. However, if a particular event becomes repetitive or is catastrophic, the penalties escalate quickly. We tried to build in a reasonable scale of forgiveness but make 'the hammer' on the back end big enough that the company will take it very seriously. We can tell you, to date, the company is positively hypersensitive about their KPIs.

- ESM: Out of those 13 KPIs, is there a KPI that is the most challenging?
- **Potter:** Definitely. It was not the one we thought it would be. We all thought it would be the availability of electrical power, but it turned out to be the availability of chilled water. We have learned you can make the chilled water plant very reliable, but if somebody in a building—who is not tied to the KPI—turns on a giant cold water spigot and leaves it on, it has the potential to momentarily draw down the pressure of the distribution system. This triggers an alarm and causes an outage.

Ultimately though, the KPIs are not as important as the partnership. So, we want to be reliable, but we are not



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interested in penalty charges. If we have to levy penalty charges, things are not going well. If the operator performs very poorly on the KPIs, we have the ability to remove the operator but keep the concession agreement and the P3 deal intact.

ESM: What is the biggest lesson learned?

Potter: Many universities will shy away from considering something like this because of its complexity. But with-in the complexity is the opportunity. If you go slow and methodically, you can do it. Something the company has taught me is that your first answer to any disagreement or question cannot be, "Let's go to the contract." I think the university picked its partner well. In hind-sight, I think the partnership aspect of the deal is even more important than we really understood at the time. The company has helped us understand that the contract is there to support the partnership, not the other way around. Both their CEO and my team try never to say, "Well the contract tells you we get 'XYZ'." Let us talk about the issue first, and if we need to fall back to the contract, we can.

ESM: What advice would you have for other Higher Education institutions who are interested in pursuing a project like this?

Potter: Go slow.

This is not a market opportunity that will disappear if you take your time to get to it. We are talking about utility systems that will always exist and will always need to be operated. The opportunity will always be there. Go slow and be methodical.

Partner with the appropriate outside consultants, get the right legal and financial consultants. It is important, from my perspective, that they be from outside because only those kinds of entities can keep you from comfort blindness, and they can help you see.

Ohio State Energy Partners was able to attract a \$1.165 billion investment through their P3 with ENGIE/Axium. No matter how big your project, the goal should be to lean on the experts to provide solutions to your energy needs.

As Ohio State's Potter said, "We had to admit that we were not experts at utility operations. We are experts in education and research. By finding the expert in utility operations, we have strong confidence that we will be able to achieve our efficiency goals better, cheaper, and faster."

More information can be found in Ohio State's 2019 Comprehensive Energy Management Annual Report, available March 2020. The report details the first two years of the partnership, with data from 2018 and 2019.



Scott Potter

Senior Director, Comprehensive Energy Management, Ohio State University

As Senior Director of Comprehensive Energy Management, Scott has primary responsibility for the oversight of the Ohio State University Energy Partnership agreement. He serves as the university liaison to Ohio State Energy Partners. Scott's office works to ensure that the enterprise-wide energy profile is as efficient and affordable as possible, while also sustainably meeting the university's operational needs. This includes oversight of Ohio State energy procurement strategies and transactions.

Scott has more than 28 years of public and private sector utility experience. Prior to joining Ohio State, Scott was the director of utilities at the Public Utilities Commission of Ohio. Scott is a graduate of The Ohio State University and the University of Southern California. He currently serves as the President and Trustee for the Ohio Energy Project, a non-profit organization dedicated to energy and leadership education for Ohio's K-12 students and teachers.