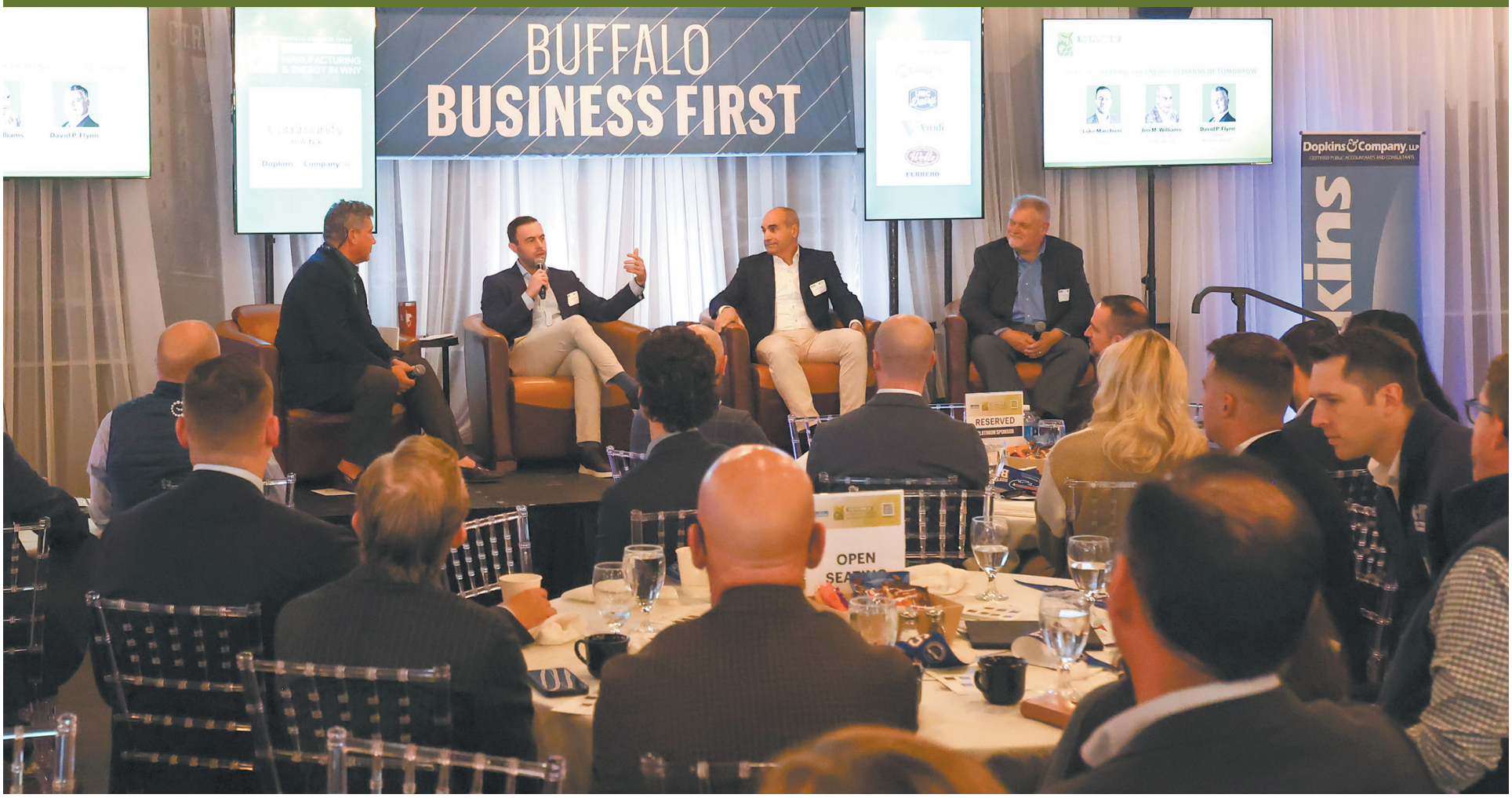

PHOTOS BY MARK MULVILLE

Buffalo Business First the Future of Manufacturing and Energy event at RiverWorks in Buffalo on Thursday, October 22, 2026.

State needs to be smart on policies supporting energy investment

Western New York's manufacturing sector is evolving and bringing with it challenges to meet increasing energy demands.

How does the region ensure its energy infrastructure keeps pace?

Business First President and Publisher John Tebeau invited three area leaders in the energy field to answer that question and discuss their outlook on the future, coming changes and biggest opportunities, and offer what businesses should be thinking about now as they prepare for the energy demands of tomorrow.

Joining Tebeau were:

- David Flynn, partner, Phillips Lytle LLP
- Luke Marchiori, executive vice president, EnergyMark
- Jon Williams, founder and CEO, Viridi

Their discussion was part of Buffalo Business First's recent event, The Future of Manufacturing and Energy in Western New York.

CHALLENGES

The investment required around transmission and distribution systems in New York State will top $1 trillion, Flynn said, but the high price will not deliver much impact.

"The troubling part is that level of investment would basically maintain the status quo. It would not envision large new data centers. It would not accomplish a major economic development scenario," Flynn said. "It is just the electrification of our existing businesses and our homes, which will require a lot more energy particularly at peak times. The cost of maintaining that is just huge with not a lot of net benefit. Energy storage will be an important part of shaving the peak off of that."

Who foots the bill and how do we get the biggest bang for whatever investment we need to do? Those are the critical questions, said Flynn, a member of Phillips Lytle's cryptocurrency and blockchain practice team and data centers practice team. He also advises clients on business development issues and the regulation of energy before state and federal authorities.

For Williams, the challenge will be meeting future demand on an electrical system that is 100 years old. It has worked well over the century because the system has built-in redundancy and the demand was small. Right now at any hour of any day, demand is less than one-third of the energy that is generated, he said.

The challenge is peak demand, he said.

"There's a moment in time that might last 15 minutes, it might last half an hour, it might happen three days a year where we get to 1.2 or 1.1 terabytes. When we hit that peak, we're basically leveraging every system in our grid to feed that power," Williams said. "All of us pay for



that peak. A demand charge is essentially a charge that says as the utility has to be ready to deliver 1.5 terabytes. Even though you are not buying it, they are going to charge you for it."

Viridi Parente, founded by Williams in 2009, is a point-of-use energy technology company that is revolutionizing the way energy is storied and used. Williams is a nationally recognized industry leader in fail-safe battery energy storage systems, which use specialized passive safety architecture to stop thermal runaway at the individual cell level, preventing chain reactions, fires or toxic gas propagation.

Storage frees up that capacity, he said, if storage is put behind the meter base loads and can go from 400 gigawatts to base loads of 900 gigawatts. The price comes down when more units are pushed through the system, and there is more utilization out of that asset, Williams said.

CONTROLLING COSTS

EnergyMark, is an energy supplier that provides customized electricity, natural gas and renewable energy solutions for businesses, helping to reduce their energy costs and achieve sustainability goals.

In the past the company operated on the commodity and procurement side, adjusting rates, and renewing contracts, Marchiori said. He oversees EnergyMark's electricity supply portfolio and day-to-day operations and advises large customers on energy procurement, market risk, infrastructure planning and grid-related strategy.

"That is still a really large part of what we do. But the future of what we do will be like an energy concierge or an energy quarterback," Marchiori said. "We are looking deeper and for different ways to help clients save money, such as through intelligence dashboards that we are building out for people so they can compare costs per square footage. Or they can look at key performance indicators and bringing energy into the equation for manufacturers."

NUCLEAR OPPORTUNITIES

New York State is viewing nuclear energy as a real opportunity, and Dunkirk and Rochester have expressed interest in hosting, which speaks well for the region in playing a role in the nuclear future of New York, Flynn said.

However, it will be a decade or more before nuclear units are up and running, waylaid by inevitable litigation, the design process and evolving technology.

So what should happen in the meantime?

Flynn is hopeful that state leaders will recognize the role that natural gas can play as a bridge to nuclear power. It is cleaner and less carbon-intensive than old coal-fired generation and can be a bridge to nuclear, which is carbon-free, he said.

"We have to have other energy sources to bridge from where we are today to where we want to be tomorrow," Flynn said. "Natural gas can be tied to the evolution of nuclear energy."

CLCPA

New York's Climate Leadership and Community Protection Act intended to reduce greenhouse gas emission by 85% by 2050 from 1990 levels with interim targets of 40% by 2030 and 60% by 2040. While there has been a roll back and hold put on the deadlines, Flynn said, the CLCPA was fatally flawed by not having a well-thought-out bridge to those goals.

Political leaders have come to recognize that the mandates are unachievable for decarbonization, a move to renewables and elimination of carbon-sourced energy in the state, he said.

"Those mandates look good on paper and over a longer period of time may be achievable and laudable as goals, but there is just no way that businesses and individuals can accomplish those things and for our economy to be able to absorb those kind of changes as quickly as they are being mandated," Flynn said. "We are going to continue to see evolvement of this whole process that reflect the determination that we really cannot achieve these goals. We have got to be able to meaningfully progress from where we are, but we have got to do it in a way that is not fatally flawed."

Williams agreed that there were

PANELISTS



DAVID FLYNN
Partner
Phillips Lytle LLP



LUKE MARCHIORI
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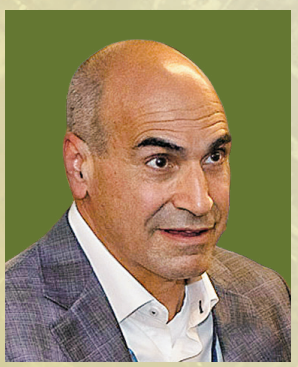

JON WILLIAMS
Founder and CEO
Viridi





missteps in the CLCPA, though the reasons for the legislation were good. There were two fundamental issues that pushed it, Williams said.

Notably, 20 years ago California was the 8th largest economy worldwide, and at the time it had no renewable energy. Since then it has invested in renewable technology, and today 80% of that state's grid is powered by renewables. It has since become the fourth largest economy in the world along with the United States, China and Japan.

"There is a pretty strong case that economic development and renewable technologies track. California is the example of that," Williams said. "The other piece is that fossil generation is about 20% efficient, even in gas if we bring in a unit of energy, 80% of it goes up the stack. We get 20% of that unit of energy as output into our use. Electricity is about 95%, so for one unit of energy we get 95% of that as output in use. From an engineering standpoint and from an economic standpoint, there are pretty strong drivers to say a move towards sustainability and electrification is good."

Where the effort falls down is in the policy driving it.

"They set all these big objectives, and they made it law, but they didn't fix any of the permitting or application process or approval process to get it done," Williams said, "and they did not use the state's authority to create areas where they were going to do it that was smart."

For example, a sizable solar farm was planted in a rural area that had no grid connection, causing utility to spend $10 million to move the energy to a solar farm that cost $2 million.

BATTERY STORAGE

Battery energy storage can have the greatest impact and create more resiliency and reliable energy, Williams believes. He explained by way of one of his clients.

A Delaware-based bank had about a 15 megawatt-hour connection to the grid, a big connection to handle all of its processing, and a 5 megawatt-hour solar array on the property.

When the sky would cloud over, the energy would hit the grid and peak charges would spike.

"In that instance, the solar made it worse," Williams said. "So we put a battery storage array on that property, and they have been off the grid for the last 12 weeks. They disconnected the grid because the solar generation has enough intermittent energy to power the whole facility, the batteries make the intermittent energy baseline."

DATA CENTERS

There is much fear in some circles that data centers will drive up the cost of energy for the communities in which they are located, though some counter that the centers have the ability to generate their own power and excess power that gets added to the grid.

If demand is going to increase, so will costs, Marchiori said, but there are solutions.

"I think what you are going to see is companies will BYOG, bring your own generation. Companies are going to start taking control of their energy cost. They might have battery storage on-site, they might have rooftop solar, and then they take advantage of timing the market with hedges and swaps, which is what we do for them on the supply side," Marchiori said. "I also think that the data centers should probably pay their fair share of transmission upgrades like upstream on the grid."

Data centers should be required to generate one-and-a-quarter times the energy it consumes and export that energy back to the community, Marchiori added.

The technology also has evolved to address another fear: noise.

"The data density that you are looking at for AI data centers is off the charts, when you compare it to old-school, air-cooled bitcoin. There is no way you could cool an AI data center with air. You need liquid cooling," Flynn said. "Most of those systems are now closed loop or mostly closed loop and it is just a much different scenario from a water-use perspective as well as a noise perspective."

BACK ONSHORE

Energy storage systems and the technology inside them have been designed and manufactured outside of the United States for several decades, a strategy that companies believed was the most economical, Williams said.

"I understand why we got rid of it. It was a huge headache that we pushed offshore," he said.

Industry is rethinking that. Though cost-effective, that approach took the entire supply chain of getting to a new product, captive knowledge of how to make the systems, the R&D, the labor training, production knowledge and gave it to another country, he said.

"We lost that muscle; we lost the ability to innovate the next product from a manufacturing standpoint," Williams said. "It is time to ramp back. We have to learn to do it, we need to build the educational facilities, we need to get young people excited about it. From a national standpoint, from just a quality-of-life standpoint, manufacturing in our region, in our country, will be why we are in a better place in 10 or 15 years."

ENERGY ECONOMY

Future investment and development will hang on a well-developed, supported backbone of energy, Flynn said.

Policymakers need to take a long-term view and make decisions that build out the energy backbone without high costs or limiting development. Past decisions did not reflect such insight.

"I remain hopeful that we can see a path forward and that we can have a transition to a new energy economy, which in and of itself can be a huge economic driver, but doing so in a way that allows us to manage the costs and have those entities that are responsible for those costs and be responsible for them," Flynn said. "That is a critical path forward."