

Chicago Tribune

Monday, September 14, 2026 at 5:00 AM CDT

Harley Johnson: Here's why concerns over Chicago's quantum park should give way to hope

By Harley Johnson

The former U.S. Steel South Works site on Chicago's South Side is giving rise to something that hasn't been there in decades — hope. I first saw the site as a kid in the early 1980s, before the steel mill closed and the site sat vacant for more than 30 years. Now, we're turning 128 acres of the site into the Illinois Quantum & Microelectronics Park. I want to share an update on what we're building — and just as importantly, what we're not — so the people of our city can share in the excitement.



The Illinois Quantum & Microelectronics Park is under construction next to Steelworkers Park along the lakefront on June 25, 2026, at the former U.S. Steel South Works site on the South Side of Chicago. (Brian Cassella/Chicago Tribune)

Quantum computing is a new technology that processes information much faster and more efficiently than today's computers, with the power to create breakthroughs in medicine, energy, finance, climate and other societal needs.

Quantum computers are entirely different from classical computers, built on the principles of quantum physics — the science that governs how the universe behaves at the smallest scales.

Quantum is a fast-growing industry, and Illinois stands poised to be the global leader, with the benefits felt at home in South Chicago.

The IQMP is a first-of-its-kind campus where people will engage in research and development to accelerate the scale-up and real-world benefits of quantum technologies. It is not a data center and will not house one on-site. It will be home to scientists, researchers and technicians working to design and build next-generation quantum computers.

The campus will host anchor tenant PsiQuantum's program to build its largest intermediate-scale test system, a critical milestone and testbed for the company's ambitious road map to develop the country's first utility-scale quantum computers, and the National Quantum Algorithm Center, which connects quantum software designers with the industries that need them. IBM's Future Now Center, which will bring 750 full-time jobs to the park, is already hiring young people through an apprenticeship program co-developed with City Colleges of Chicago.

Looking south and east across the lake, you can see the towers and flares of the refineries that represent Chicago's industrial past. The IQMP is placing the South Side at the center of Chicago's future, with technology far more sustainable than the industries that preceded it. The complex will use closed-loop helium cryogenic systems to cool the new computing prototypes, not the water-intensive cooling that large data centers require. Because water at the park will mostly support the buildings themselves and some process systems, the IQMP's water use will be similar to that of a hospital. The park will draw from Chicago's municipal system, the same source that serves homes and businesses citywide, and will not draw from or discharge into Lake Michigan or the Calumet River.

The quantum campus will consume a modest amount of energy comparable to a manufacturing site — much less than the hyperscale data centers many of us are concerned about. The next two buildings on the site, Quantum Works (an office building) and the National Quantum Facility (a research lab), are targeting approximately 30% lower energy use than comparable buildings. A new ComEd substation is being built using existing transmission infrastructure from the former South Works site, bringing new carbon-neutral energy into the neighborhood.

To leave the site better than we found it after a century of steelmaking,

IQMP's developer partners have led a remediation effort that goes beyond state requirements, including an underground barrier wall that permanently isolates legacy contamination, and around-the-clock dust monitoring to protect nearby residents during remediation. The building designs even account for the migratory birds in the area, using bird-safe glazing on every window. We're expanding green space, native landscaping, green roofs and public access to the lakefront, including a cafe near Steelworkers Park.

IQMP is led by educators from across Illinois, including the University of Illinois, where my colleagues and I focus on education, training and scientific advancement. To that end, we're bringing federal funding here to prototype, test and evaluate quantum computers, ensuring the technology delivers real economic and social value to communities as part of the Illinois-DARPA Quantum Proving Ground. The Defense Advanced Research Projects Agency's past work has brought us the internet, GPS, lifesaving vaccines and more. What the agency — and we — will not be doing is testing weapons or running military programs. Our latest federal grant, with the Chicago Quantum Exchange, brings Commerce Department funding to build a facility that attracts and retains small businesses supplying the industry.

None of this work matters if it doesn't translate into opportunity for the people who live here.

We chose this site because of what it once meant to this proud community. When I talk to South and Southeast Side residents in community centers, schools and churches, our discussions always turn to jobs for their children, grandchildren and neighbors. Just as U.S. Steel was once an engine of economic growth and opportunity here, the IQMP is designed to be one for the future.

Our work will be powered by human expertise, unlike a data center, which creates relatively few long-term jobs after construction. We will ramp up to over 1,000 fulltime jobs in the next few years, and our campus will grow into an innovation ecosystem that can support thousands more, from engineers and physicists to technicians, tradespeople and human resources professionals. Over the next few decades, the IQMP and Illinois' broader quantum ecosystem are expected to generate billions of dollars in economic impact for the neighborhood, our city and our state.

The IQMP only succeeds if South Side residents see themselves as part of this emerging industry. That's why, as students head back to school this fall, we're deepening our partnerships with Chicago Public Schools, Chicago State University, City Colleges of Chicago, Science Olympiad, Saturday Morning Quantum and other partners, so young people aren't just watching this industry rise, but preparing to be part of it. When I joined hundreds of CPS kids at their quantum-focused after-school Minecraft program

last spring and saw their energy and excitement, I knew we'd found the right place to grow an industry with impact for generations.

The next chapter of quantum technology is going to be written somewhere. I'm proud that Illinois, and this community in particular, is choosing to write it here.

Harley Johnson is the CEO of Illinois Quantum & Microelectronics Park.