



Quantum Network

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PRESS RELEASE

Chattanooga launches “Gig City Goes Quantum” to prepare for the Quantum Age

Led by EPB Quantum NetworkSM powered by Qubitekk, initiative starts with goal of completing 1,000 Quantum Learning Activities for World Quantum Day

CHATTANOOGA, Tenn. (March 23, 2023) – This morning at a meeting of the Quantum Economic Development Consortium (QED-C), Chattanooga Mayor Tim Kelly announced “[Gig City Goes Quantum](#),” a new initiative to prepare for education, jobs and business opportunities in the emerging quantum technology sector. [Gig City Goes Quantum](#) will leverage [EPB Quantum NetworkSM powered by Qubitekk](#) to accelerate the commercialization of quantum technologies through collaboration with community leaders, universities, schools and companies starting in Chattanooga and spreading cooperatively across the U.S. Gig City Goes Quantum’s first effort begins on World Quantum Day, April 14, with the goal of engaging people of all ages in 1,000+ Quantum Learning Activities by May 31.

“The launch of EPB’s Quantum Network has positioned Chattanooga to lead in quantum information technology, but there’s still a lot we need to do to prepare our city to thrive in a new quantum age,” said Chattanooga Mayor Tim Kelly. “Gig City Goes Quantum is a collaborative effort to build a new quantum ecology starting right here in Chattanooga, with student education, workforce preparation, and support of companies that are leading the way in translating quantum possibilities into real-world solutions.”

“This partnership between EPB and Hamilton County Schools presents a unique opportunity for us to be a leader in quantum education and create a talent pipeline that is essential for advancing an innovative local economy,” stated Hamilton County Mayor Weston Wamp. “We believe in equipping our students with new skillsets and knowledge that they can apply towards their future career paths, whether it's in higher education or vocational training.”

Gig City Goes Quantum collaborators include educators, scientists, entrepreneurs and community leaders focused on preparing Chattanooga for the emerging quantum sector which holds the promise to revolutionize computing, cybersecurity, healthcare, finance and many other in-demand fields (see Gig City Goes Quantum collaborator list at end).

“The commercialization of quantum technology is a major national priority to advance American ingenuity and security,” said Congressman Chuck Fleischmann (TN-03). “I’m gratified to represent a district with such depth of national science assets, including Oak Ridge National Lab and EPB Quantum Network, and look forward to working closely with the U.S. Department of Energy to share the expertise from our region as resources for supporting innovation across the country.”

[Gig City Goes Quantum](#) will offer educational resources for students (5th grade through university) and anyone with a curious mind thanks to support from Hamilton County Schools, Chattanooga State Community College, the University of Tennessee at Chattanooga (UTC), Chattanooga 2.0, Public Education Foundation Chattanooga, National Science Foundation, National Q-12 Education Partnership and Xairos.

To sign-up for updates, please email GigCityGoesQuantum@epb.net to be notified when quantum educational resources are available at <http://protect-us.mimecast.com/s/VtLWCrkYRDTAwJq6izqT70?domain=gigcitygoesquantum.com> starting April 6. The following events will be broadcast via livestream and open to media:

Friday, April 14 at 10 a.m.

Chattanooga State Community College

Discussion: The Coming Quantum Age by Qubitekk President, Chief Technology Officer and Co-Founder Dr. Duncan Earl

Friday, April 14 at 1:30 p.m.

EPB Institute of Technology and Networking at Tyner Academy

Hands-on Demonstration: Why did Albert Einstein call quantum physics “spooky action at a distance?” by Qubitekk’s Dr. Duncan Earl

Monday, April 17 at noon

University of Tennessee at Chattanooga

Quantum computing (details to be announced)

Wednesday, April 19 at noon

University of Tennessee at Chattanooga

Quantum networking by Xairos Chief Scientist Dr. James Troupe

Friday, April 21 at noon

University of Tennessee at Chattanooga

Quantum sensing by UTC Assistant Professor of Physics Dr. Tian Li

“Gig City Goes Quantum is an opportunity for all of our QED-C members to engage in activities to develop a strong quantum ecosystem,” said QED-C Executive Director Celia Merzbacher. “EPB and Qubitekk’s partnership positions Chattanooga to lead in the quantum space and serves as an example to other municipalities of supporting meaningful progress to advance quantum investments in their communities.”

Although resources at GigCityGoesQuantum.com are available to anyone, educators in particular are invited to register for a free Quantum Education Kit with links to videos and educational resources for use in classrooms. Livestream activities are open to watch online for everyone with interest, and videos

will be archived at GigCityGoesQuantum.com along with access to other free activities developed by national and local educators, physicists, workforce development professionals and entrepreneurs.

In addition to providing livestream Quantum Learning Events, the University of Tennessee at Chattanooga (UTC) recently dedicated an institutional initiative to quantum information science and engineering to establish a program known for excellence in education, innovation and economic development enabled by quantum technology. UTC will also host a quantum node connected to EPB Quantum Network, which is expected to be operational by mid-summer.

“UTC students will have unique access to experiential learning by being able to use a real-world quantum network on our campus through EPB Quantum Network,” said University of Tennessee at Chattanooga Chancellor Dr. Steven R. Angle. “Quantum learning has applications for students enrolled in both STEM and non-STEM disciplines as well as people already in our workforce to upskill their qualifications in anticipation of new applications.”

According to the [Quantum Information Science and Technology Workforce Development National Plan](#), preparing the United States workforce is essential to economic and national security. Current talent shortages could compromise advancements with more job openings than qualified applicants.

“We need ambitious workforce development strategies to prepare the range of talent who will fill tomorrow’s quantum jobs, from physicists who will design systems to the technical professionals who will maintain and repair them,” said Chattanooga State Community College President Dr. Rebecca Ashford. “ChattState’s team is preparing to meet this challenge to ensure Chattanooga can continue to lead in this space.”

“Quantum technology holds the promise for revolutionary, groundbreaking possibilities that change how we all live and work, which is why it’s so important to prepare students for the industry’s future,” Qubitekk President, Chief Technology Officer and Co-Founder Dr. Duncan Earl. “From protecting against cyberthreats and launching a next-generation internet to uncovering life-changing advancements in healthcare, education and other industries, today’s students will be the ones who will make these possibilities reality.”

Today’s announcement follows the fall launch of EPB Quantum Network powered by Qubitekk, America’s first industry-led, commercially available quantum network designed for running equipment and applications in an established fiber optic environment.

“Chattanooga became known for the Gig because of a community-wide effort to foster entrepreneurial and business growth, which invigorated a new economy for the region,” said EPB President and CEO David Wade. “With EPB Quantum Network, exponentially broader opportunities will be possible for new jobs, educational resources and investments that don’t exist today, here or anywhere else.”

Chattanooga’s entrepreneurial community already is mobilizing around the quantum industry with CO.LAB’s focus on [sustainable mobility](#). CO.LAB’s inaugural [MOBILITY Summit](#) on May 9-11 will feature quantum technology and networking advancements, among other topics advancing the equitable movement of people, goods, energy and data.

Today’s announcement took place at [QED-C](#)’s 2023 Spring Plenary Meeting attended by large companies, emerging entrepreneurs and government agencies that share the mission of enabling and

growing a robust commercial quantum-based industry and associated supply chain. Managed by SRI International, QED-C was established by the National Institute of Standards and Technology (NIST) as part of the federal strategy for advancing quantum information science, as called for by the National Quantum Initiative Act enacted in 2018. Dr. Andrew Wilson, Chief of the NIST Quantum Physics Division actively participates in and oversees QED-C. The Director of the Department of Energy Office of Science Dr. Asmeret Berhe provided keynote remarks and Deputy Director of the Air Force Research Laboratory Information Directorate Dr. Michael Hayduk participated as a member of the QED-C Steering Committee.

Several organizations worked together to launch Gig City Goes Quantum and will continue to collaborate to develop strategies for advancing Chattanooga's position as a quantum innovation leader:

- Chattanooga 2.0
- Chattanooga Area Chamber of Commerce
- Chattanooga Public Library
- Chattanooga State Community College
- City of Chattanooga
- CO.LAB
- The Enterprise Center
- EPB
- Hamilton County Schools
- Hamilton County Government
- Public Education Foundation
- Qubitekk
- University of Tennessee at Chattanooga
- Xairos

About EPB

EPB delivers advanced smart city infrastructure and world-class energy and connectivity solutions, including the most resilient smart grid power distribution system in the United States and the fastest internet in the world. EPB gained national notice when it deployed America's first community-wide Gig-speed internet in 2010, later expanding the ubiquitously available service to 10 Gig in 2015 and 25 Gig in 2022. Ever committed to keeping Chattanooga on the cutting edge, in 2022, EPB established EPB Quantum NetworkSM powered by Qubitekk, America's first industry-led, commercially available quantum network designed for private companies as well as government and university researchers to run quantum equipment and applications in an established fiber optic environment.

EPB utilizes its fiber optic network as the communications backbone for more than 200,000 smart switches, sensors and other devices. As a result, the Chattanooga area's power distribution system is the most advanced and highly automated smart grid in the nation. This led the U.S. Department of Energy to name EPB a living laboratory for pioneering smart grid technologies. Since then, EPB has partnered with Oak Ridge National Laboratory, the University of Tennessee at Chattanooga and more than 20 other national research partners to play a critical role in more than \$155 million in smart city research, earning such recognitions as the R&D 100 Award for its work to apply quantum technologies to securing America's electric grid. EPB was also the first major power distribution utility to earn the GBCI's PEER

certification for having a highly automated, modernized electric power grid in 2015 and followed up in 2021 by re-certifying at PEER Gold.

EPB is an independent board of the City of Chattanooga which began serving customers in 1939 and today reaches a 600-square-mile service territory that includes the city of Chattanooga, Tennessee and the surrounding area. Visit epb.com for more information.

About Qubitekk

Qubitekk designs, builds and integrates the hardware and software for quantum networks, precursors to the quantum-enabled internet while championing the growth of a robust quantum ecosystem through education, advocacy and collaboration. Qubitekk's comprehensive entanglement distribution technology is at the core of the Bohr-IV Metro Quantum Network solution deployed at EPB and utilized in its Quantum Network Essentials product line and secure network solutions being developed for drones, satellite communications and the electric grid.

Co-founded by Dr. Duncan Earl, a nationally recognized pioneer in the field of practical quantum applications, Qubitekk holds more patents than any American player in quantum communications and security and has been recognized with an Edison Gold Award and R&D World's R&D 100 Award. Qubitekk's quantum technology is empowering the next generation of solutions for AI, machine learning, automation, sensing applications, cybersecurity and secure communications. The company's growing list of partners and customers includes NASA, GE, Verizon, Juniper, Boeing, the United States Department of Energy and the United States Department of Defense. For more information, visit Qubitekk.com.