



Broadband Infrastructure Grant (**BIG**) Program

*Getting started with your CENIC connection
Conditions & Expectations for Participation*



CENIC and CalREN

Jaime Augst

CENIC Research Specialist

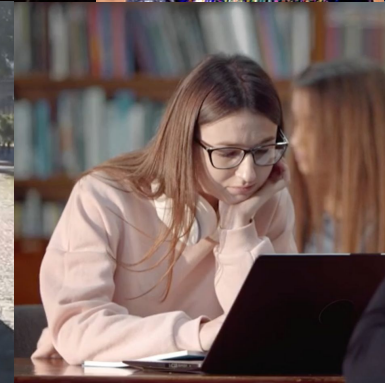
CENIC is a 501(c)(3) with the mission to advance education and research statewide by providing the world-class network essential for innovation, collaboration, and economic growth.

Charter Associates:

- University of California System
- Stanford, Caltech, USC
- California State University System
- California Community Colleges
- California K-12 System
- California Public Libraries
- Naval Postgraduate School

Other Members Include:

- Scientific and Cultural Institutions
- Private Colleges and Universities
- Hospitals and Specialized Medical Institutions
- Biomedical, Space, & Environmental Research Organizations
- Tribal Nations



The California Research and Education Network (CalREN) 27 years of connecting California

- **8,000+** miles of optical fiber
- **Members in all 58 counties** connect via fiber-optic cable or leased circuits from telecom carriers
- **Over 12,000 sites** connect to CENIC
- Operated by a **501(c)(3) organization** chartered and governed by its members
- Collaborates with over **800 private sector partners** and contributes **> \$100,000,000** to the CA economy

20,000,000+ Californians use CENIC



CENIC Benefits to California Institutions

CENIC's California Research and Education Network (CalREN) is a multi-tiered, high-performance network serving the majority of research and education institutions in the state.

CalREN broadband offers CENIC member institutions supremely reliable, efficient, and cost-effective access as well as these benefits:

- Access to a state-of-the-art network
- Lower costs on circuits and equipment
- Unlimited broadband use
- Network design expertise
- Circuit procurement, lighting, and support
- Federal and state subsidy assistance
- Cloud connectivity and content services
- Scaling services to the need

K-12 Online Learning & Testing



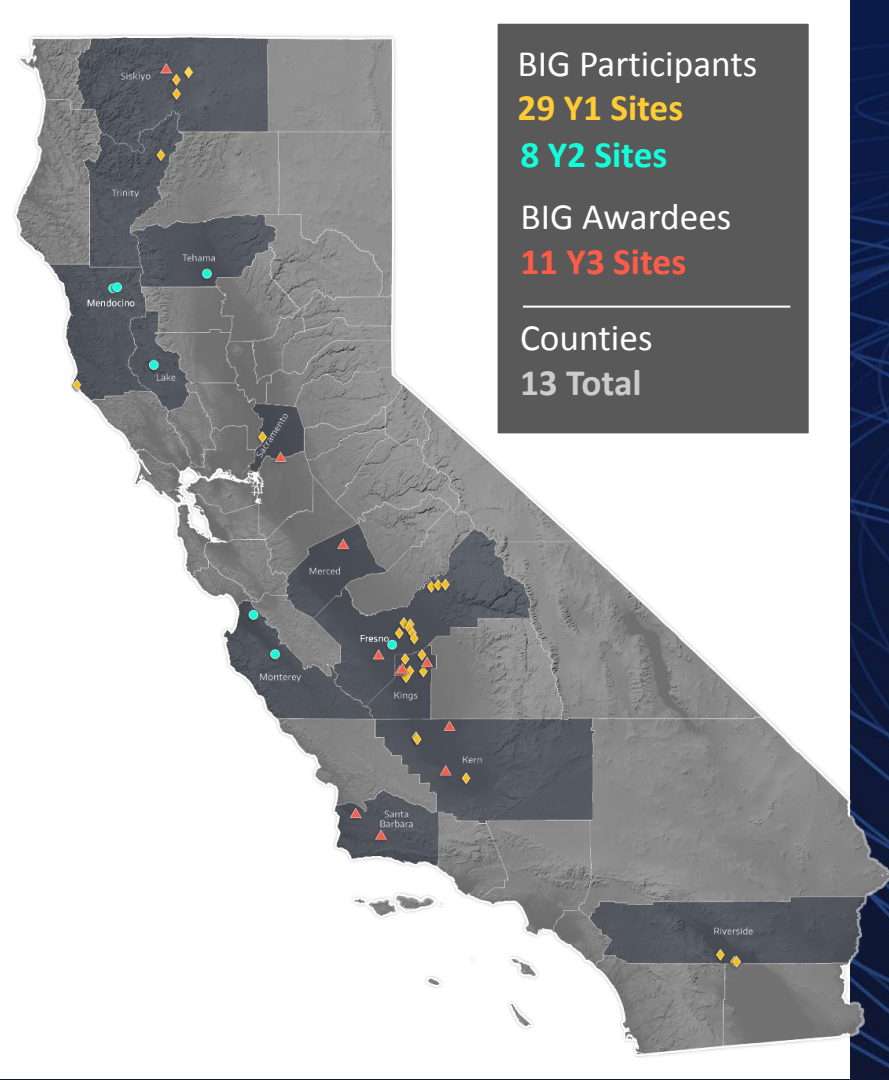
Connected schools receive high-quality, scalable, and reliable service. K-12 data is treated the same as big data produced by research. California set a record when 570,745 students simultaneously took the California Assessment of Student Performance and Progress (CAASPP) test. Before recent upgrades to their connections, some schools could only test 20 students at a time or were unable to perform online testing at all.



K12 Broadband Projects

Kim Lewis

CENIC Vice President of Government Relations



The Broadband Infrastructure Grant (BIG) project was funded to identify and implement fiber-based broadband solutions to the most poorly connected school sites in California in order to enable digital learning opportunities for students.

Eligible Schools:

- Offer K-12 instruction
- Lack 1 Gbps fiber broadband
- Meet CDE's definition for public schools

Broadband Infrastructure Improvement Grant (BIIG) & Broadband Infrastructure Grant (BIG)

BIIG (2015-2021)

Administered by ICOE through the K-12 High-Speed Network (K12HSN) program, with implementation by CENIC through contract with ICOE

- Funded broadband for public K-12 sites with insufficient capacity to administer annual statewide online testing (CAASPP)
- Funding
 - BIIG 1.0 - 165 sites
\$26,689,000
 - BIIG 2.0-2.5 - 272 sites
\$50,000,000

BIG (2019-2024)

Administered and implemented by CENIC, in consultation with the Department of Education (CDE), Department of Finance (DOF), and State Board of Education (SBE)

- Funds fiber-based broadband solutions for public K-12 sites lacking broadband fiber connections (not tied to CAASPP)
- Funding
 - \$12,700,000
- Focus on fiber to the school to deliver reliable, scalable broadband

BIG AWARD BENEFITS

The California Department of Finance (DOF) and State Board of Education (SBE) approved prioritization of projects based on lowest per student cost to deliver fiber-based broadband, thereby connecting the largest number of schools and students with available funds. Some schools are co-located, allowing them to share a single connection.

- **Special Construction:** BIG pays the one-time costs of delivering fiber-based circuits into schools
- **Site Readiness Cost:** BIG provides technical resources and pays for work required at the school site to connect the new broadband circuit
- **Equipment:** BIG purchases and installs network equipment at the school to connect the new circuit
- **On-site Integration Assistance:** Through BIG, schools may procure additional on-site technical support to integrate broadband into their local networks
- **Monthly Recurring Costs (MRC):** Monthly recurring carrier costs will be billed directly to CENIC and paid through the grant for 6-18 months, depending on date of installation
- **E-rate Assistance:** CENIC filed for E-rate for all BIG circuits and will provide E-rate consultation to BIG schools to facilitate continued E-rate and CTF discounts when schools assume monthly recurring costs

OTHER COSTS TO BE CONSIDERED

Ongoing service provider costs will be listed in the Memorandum of Understanding. BIG has limited funds, and additional costs to the school that must be considered are:

- **Ongoing support or connection fees from the County or District:** Depending on the policies of the county or district, there may be annual or monthly fees for ongoing support of the connection.
- **Upgrades to other equipment to accommodate additional bandwidth:** Certain local network equipment is bandwidth restrictive and is generally not covered by the grant funds.
- **Additional configuration support:** BIG professional services will assist in integrating the new connection, but there is potential for other configuration or installation costs or improvements that fall outside the scope of BIG funding.
- **Ongoing troubleshooting:** After integration, CENIC will provide the service provider with a Letter of Authorization, allowing the site to call into the service provider directly for support. The site may be responsible for troubleshooting when experiencing issues or outages.

The background features a dark blue field with a complex network of thin, light blue lines and small circular nodes, resembling a digital or network structure.

Steps to Getting Connected

Son Nguyen

CENIC Program Manager

BIG Recipients: Your Next Steps

To receive new fiber-based broadband connectivity through the Broadband Infrastructure Grant (BIG), awardees will be required to complete the following steps:

1- Memorandum of Understanding (MOU): CENIC will provide an MOU which awardees must sign, agreeing to cover specified monthly recurring cost (MRC) of the service by transferring the contract from CENIC to the school, typically 6 to 18 months after start of service, through a process known as supersedure.

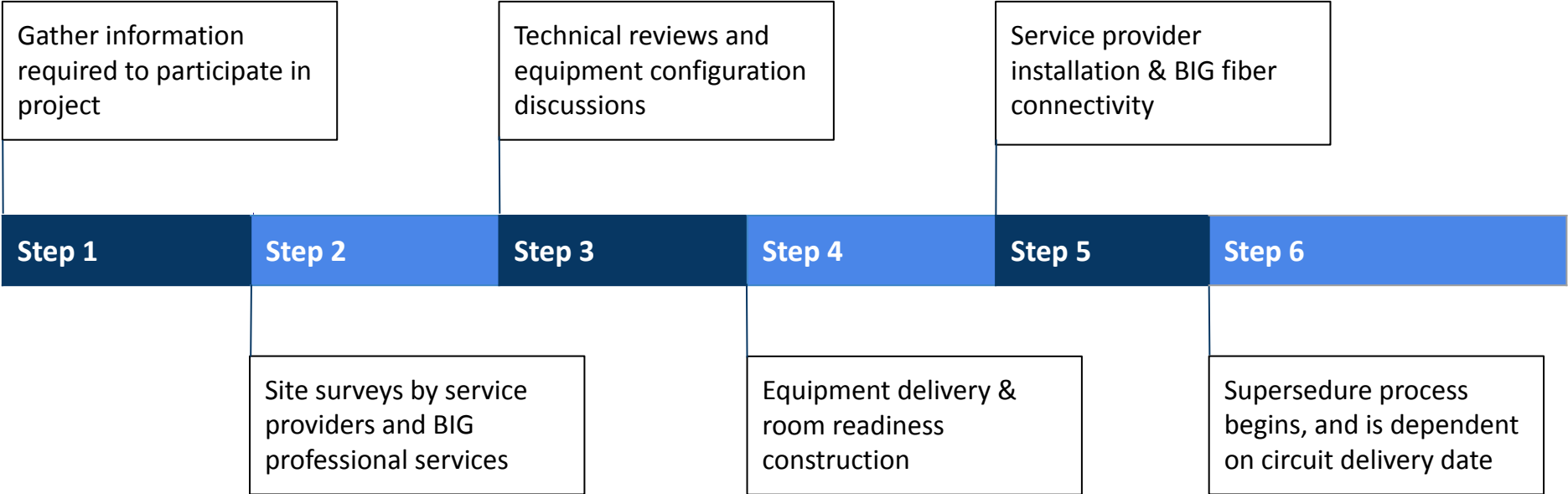
2- Contact and Site Information: Eligible sites must complete CENIC's survey to provide contact information, as well as additional site-specific information.

3- Communication: Awardees will need to communicate regularly with the BIG project team to schedule on-site activities and share project updates.

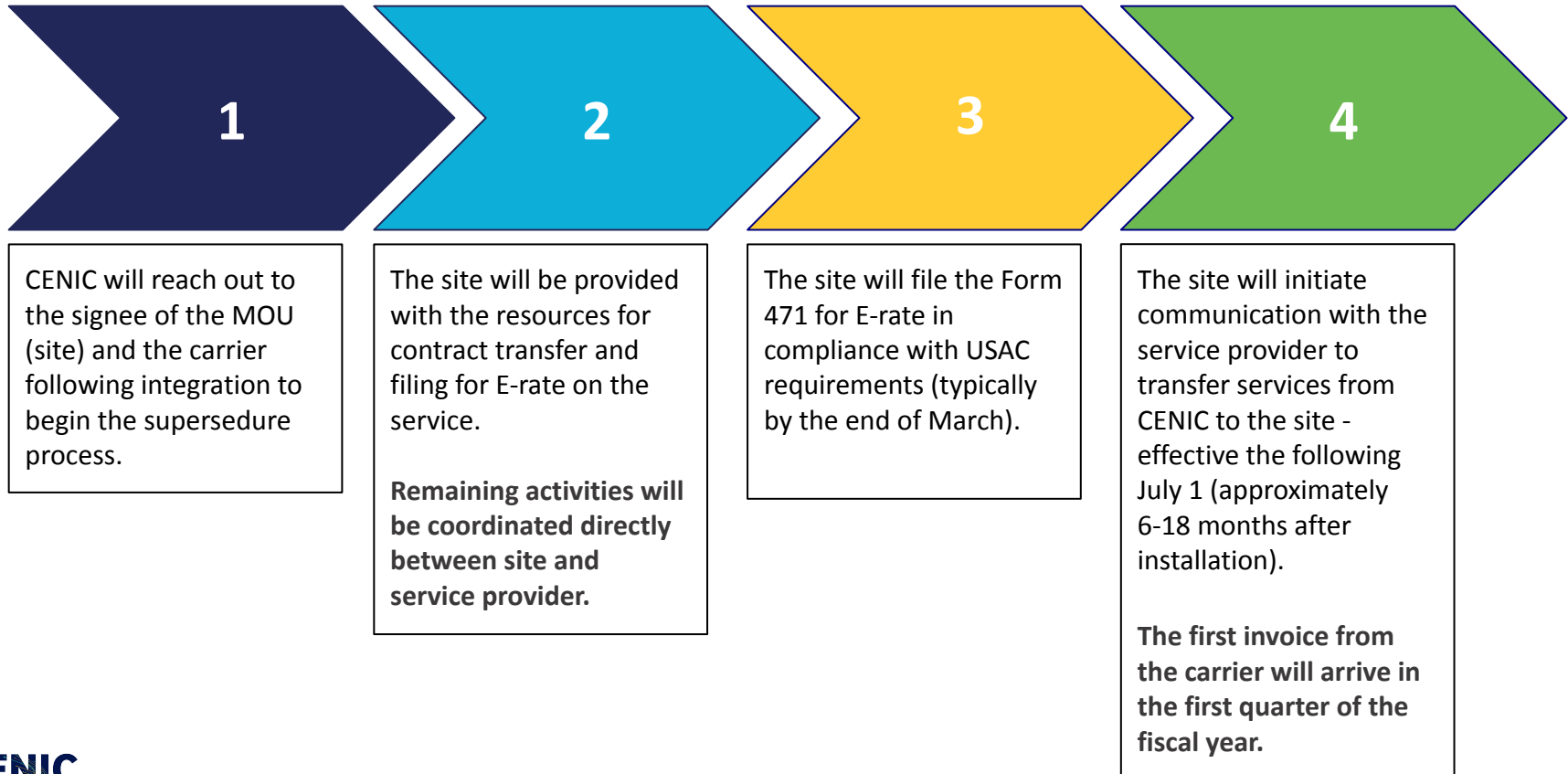
- *Communication may include CENIC staff, consultants, contractors, service providers, and district and COE IT staff. Please be sure to "cc:" all parties on BIG-related communications.*

Thank you for your diligence completing these important steps.

Next Steps & Connection Process



Supersedure Process: Transferring Responsibility for Payment



The background features a dark blue gradient with a complex pattern of thin, light blue lines that swirl and intersect. Scattered throughout are small, semi-transparent blue dots of varying sizes, some appearing as if they are part of the line network.

Question & Answer

FAQ

If other sites in the district need fiber broadband assistance, will they be eligible for grant funds? We are collecting information on additional sites with low or no network connectivity and continue to explore opportunities to connect them, based on availability of funding and resources to support future projects. Please bring these sites to our attention. You can go here to submit your application: <https://cenic.org/initiatives/big>

Do I need to fill out anything to participate? Yes, awardees must complete and sign a Memorandum of Understanding, committing the school to pay ongoing monthly recurring costs and providing site contact information, along with other information requested in our survey form.

When will I know my costs and how were those costs determined? Ongoing costs will be listed in the MOU and are based on quotes from service providers who responded to CENIC's RFP.



For additional information, please contact:

bigprogram@cenic.org

Son Nguyen
Dave Wills

Resources

BIG School Eligibility Survey: <https://forms.gle/rpZBhHPqjRVYvPjo8>

Learn More about CENIC: cenic.org

Read more stories about CalREN and how CENIC members use the network on our blog: cenic.org/blog

Glossary of Broadband Terms:

<https://docs.google.com/document/d/1MydomzKUdpaRIhOmfUePs2iy4IOUZVxVdNEVbbS11ac/edit?usp=sharing>

Blog Posts & Presentations

- [The Broadband Infrastructure Grant \(BIG\) Identifies and Connects Schools to CalREN](#)
- [Broadband for Every California Household: One Gigabit or Bust!](#)
- [Understanding Network Impacts of Increased Online Learning](#)
- [Broadband in K-12 Schools Boosts Teaching Practices and Learning Outcomes](#)

Social Channels:

- LinkedIn: <http://www.linkedin.com/company/cenic>
- Twitter: <http://www.twitter.com/CENICnews>
- YouTube: <https://www.youtube.com/channel/UCusC8odlj2ukhXYIfaAGobQ>

The background features a dark blue gradient with a complex pattern of thin, light blue lines that swirl and intersect. Scattered throughout are small, semi-transparent blue dots of varying sizes, some appearing as nodes in the network of lines.

Thank You