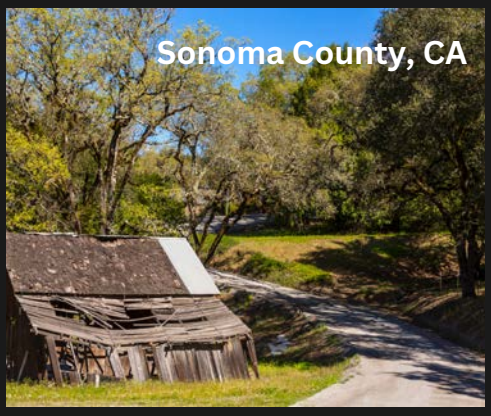
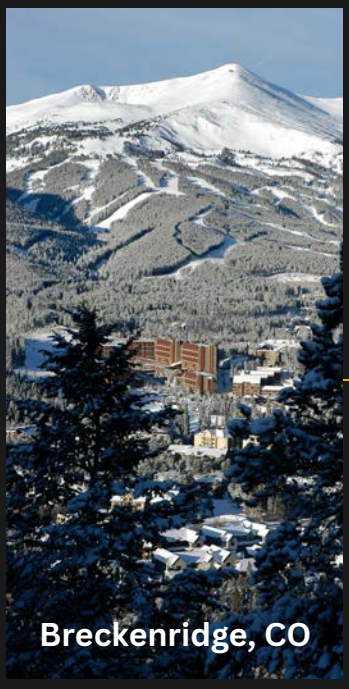
Broadband and the Environment

Next Century Cities

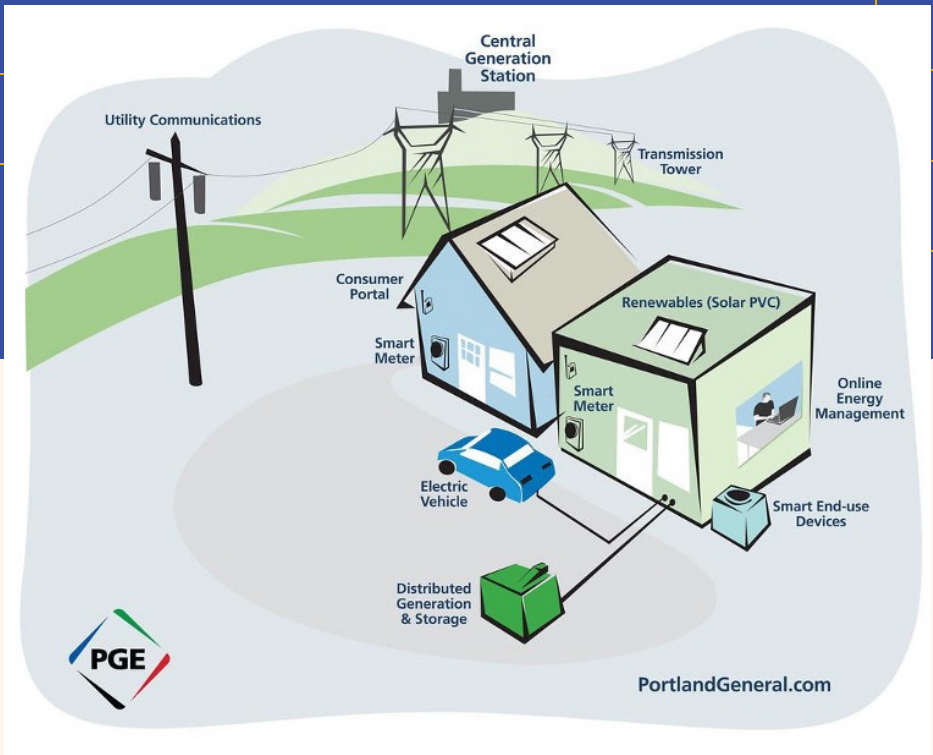
April 2023





The Internet and Your Carbon Footprint ◆ Cybersecurity and Climate Change ◆ Broadband Infrastructure and Climate Resilience

inside



ADDRESSING CYBERSECURITY RISKS IS NECESSARY TO MITIGATE CLIMATE CHANGE

BY CORIAN ZACHER

When the FCC released the National Broadband Plan in 2010, it included recommendations related to broadband's impact on energy and the environment. One suggestion centers around incorporating broadband into the electric grid. Since the Plan was released, many electric grids have yet to be updated, and those that have face cybersecurity risks that were not anticipated in 2010. U.S. residents are experiencing the direct impact of these challenges in the form of unreliable, and sometimes exorbitantly expensive, electric service.

States like California and Texas have made headlines over the last several years due to climate-related disasters. Droughts have increased the risk of fires along the Pacific coast. Meanwhile, hotter summers and colder winters have devastating consequences on the aging power grid in the South.

Incorporating broadband connectivity in electric grids provides more accurate, real-time data that can help operators control energy loads while saving money. Connected electric grids can help mitigate the direct effects of climate change on residents while also reducing electricity's carbon footprint in the first place.

Continue reading **here**.

THE INTERNET IMPACTS THE ENVIRONMENT MORE THAN YOU REALIZE

BY RYAN JOHNSTON

Connecting every household to high-speed, reliable broadband has been the goal of federal agencies, funding programs, and a myriad of others for years. Universal connectivity allows seniors to age in place, children to learn from home, and parents to work remotely, among countless other important uses.

> **One hour of streaming or video conferencing can emit between 150 and 1000 grams of CO2 into the atmosphere.**

One thing about the Internet that is frequently forgotten is how our connectivity impacts the environment. When we consider connectivity, whether or not the connection works is a primary concern. Oftentimes we don't think about all the network elements that relay broadband from backbone infrastructure into our homes.

The electricity required to run cellular towers, data centers, and computers in addition to recharging our phones and laptops accounts for almost 4% of global greenhouse gas emissions. For example, it is estimated that a regular text-only email produces up to 4 grams of CO2, and an email with a large attachment produces up to 50. The energy needed to run your computer to the multitude of servers that instantaneously receive and pass on the email continually usurp power.

Similarly, one hour of streaming or video conferencing can emit between 150 and 1000 grams of CO2 into the atmosphere, depending on the service.

Continue reading **here**.

CLOSING THE DIGITAL DIVIDE IS ESSENTIAL TO ACHIEVING ENVIRONMENTAL JUSTICE

BY BRIAN DONOGHUE

In recent years, municipalities across the country have faced growing challenges related to climate change and the need for improved digital connectivity. Perhaps now more than ever, policymakers recognize that the intersection of broadband and climate policy is critical for addressing these challenges. In this reflection, I explore three key intersections of broadband and climate policy and how they shape the United States' response to pressing environmental and connectivity issues.

Broadband access is essential for promoting clean energy solutions, reducing greenhouse gas emissions, and fostering a more sustainable future. As the world becomes increasingly connected, the demand for data and energy-intensive digital services grows, contributing to global emissions. However, broadband infrastructure can contribute to climate change mitigation when deployed effectively.

Expanding broadband access enables remote work, online learning, and telemedicine, among other things. The online availability of these services and activities can decrease the need for travel and its associated greenhouse gas emissions.

Continue reading **here**.

NCC IS ADVOCATING FOR YOUR COMMUNITY

California Needs Local Input to Develop a Robust Broadband Equity, Access, and Deployment Program

Stripping municipalities of control in broadband programs adds unnecessary obstacles to closing California's digital divide. In comments submitted to the California Public Utilities Commission (CPUC) on April 17, 2023, Next Century Cities reiterated the dire need to include local leaders in state broadband policy. You can read NCC's comments **here**. Continue reading this blog post **here**. The CPUC is hosting workshops across the state that will inform billions of dollars in broadband spending. **Register here**.

Next Century Cities and Municipalities File Comments on Developing a National Spectrum Strategy

In coalition with the City of **South Bend, Indiana**; City of **Boston, Massachusetts**; City of **Syracuse, New York**; and Access Humboldt, Next Century Cities submitted comments in response to the National Telecommunications and Information Administration's (NTIA) Request for Comment on the Development of a National Spectrum Strategy. The April 17th comments emphasized the importance of a comprehensive, collaborative, and forward-looking approach to reallocating and sharing spectrum. Read NCC's filing **here**. Read the full blog post **here**.


Sacramento, CA

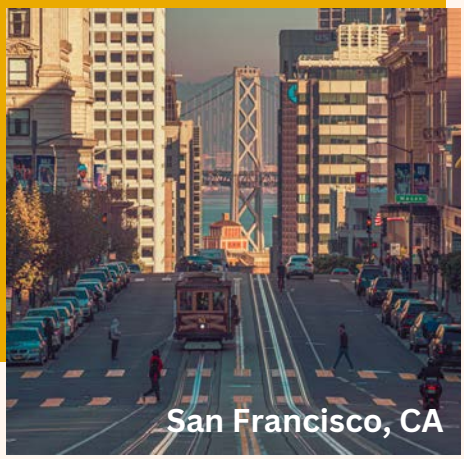
OPPORTUNITIES FOR MEMBERS

The **National Summit on State Planning for Digital Equity and Economic Inclusion** takes place in Atlanta, GA from April 27-28, 2023. Learn more **here**.

The City of Long Beach, CA is hiring for a **Digital Equity and Inclusion Program Coordinator**. Apply **here**.

NTIA is conducting **listening sessions on the Digital Equity Act Request for Comment**. Join the final listening session on 4/28/23 at 3:00 p.m. ET. Register **here**.

The New Mexico Technology Council is looking for presenters for the **New Mexico Tech Summit** on September 7-8, 2023 in Albuquerque, NM. Learn more **here**.



The Aspen Tech Policy Hub is hiring for an **Interim Director/Interim Associate Director** position! This is a temporary role (with the possibility of an extension). Learn more and apply **here**.

As part of the FCC's ongoing efforts to combat digital discrimination, they have established a **Broadband Access Experience Form** where consumers can share their unique experiences and challenges in obtaining broadband Internet access.

The National Broadband Resource Hub is a *free* online community for government leaders and nonprofits working to expand broadband access and affordability. It includes: A Resource Library, a Community Conversation Forum, and a Help Desk. Visit today at **www.broadbandhub.org**.

What is the National Broadband Resource Hub?

www.broadbandhub.org

Register here for the next Broadband Hub webinar discussing how to make the most of technical assistance on **May 18th at 2:00 p.m. EDT.**

Click to view recent posts:

- **What comes first when putting together a Public-Private Partnership for broadband: Designing the network or choosing an ISP partner to operate the network?** (April 17, 2023)
- **What's keeping your community from getting involved in local broadband planning? Here's a greatest hits list of skeptical questions we've heard.** (April 13, 2023)
- **What are some of the top reasons communities don't get adequate bids on their RFPs?** (April 3, 2023)