



About The Digital Climate Alliance

The Digital Climate Alliance (DCA) is a coalition of forward-thinking companies that are committed to using digital tools to decarbonize the economy. Alliance members recognize the urgent need to address the climate crisis and believe in the transformative impact of technology to drive significant emissions reductions.

Our homes, cars, and buildings are all being integrated with “smart” devices that allow them to be connected to the internet and cloud computers and utilize artificial intelligence (AI). DCA sees an opportunity to integrate climate policy with interconnected data and digital tools. The result—“Smart”er Climate Policy. The economy’s digital transformation will have significant implications for efforts to reduce greenhouse gas emissions and deliver products and services that consumers need and want. Yet, scaling digital solutions to address climate change will not happen on its own. It will take purposeful action by both the public and the private sectors.

Smarter Efficiency

New sensor systems and smart meters, Internet of Things, AI, machine learning, and digital twin technologies transform real-time data into actionable insights to inform strategic decision-making and enhance energy and operational efficiency for the buildings and industrial sectors. There is an unprecedented opportunity for the Federal government to advance smarter management systems, through investing in smart technologies, encouraging technological innovation, and promoting research, development, and demonstration. These will catalyze greater sustainability outcomes.

Smarter Supply Chains

Supply chain transparency is a valuable tool, enabling companies to swiftly adjust to disruptions. The next step is to improve supply chain sustainability by standardizing emissions reporting and improving the interoperability of sustainability data from one company to the next.

Smarter Food and Water

The domains of water and food don’t exist in siloes but are interrelated in ways that can bring together policymakers, agriculture and water planners, practitioners, and researchers invested in digital climate solutions. The Federal government can accelerate market-based and climate solutions by utilizing and promoting digital tools and technologies in food and water management. Federal research into the critical ag-water-energy nexus is a major opportunity to scale system-level digital innovation across these sectors, present new ideas for cross-sector engagement, promote greater access to real-time data and information sharing, and create new markets for efficiency and sustainability solutions.

Smarter Electricity

Digitalization can transform and optimize the operation of our electricity grids. Digital tools are enabling utilities to better manage power generation, distribution, and consumption, thereby reducing costs and enhancing reliability. Additionally, by using data analytics tools, utilities can identify areas of inefficiency, predict demand and supply patterns, and make informed decisions about the deployment of resources.

POLICY RECOMMENDATIONS

Digital Solutions for Data Centers

Data centers are an integral part of modern-day society as they store and process massive amounts of data, from personal information to business data, and everything in between. However, data centers also consume an enormous amount of energy and have a significant impact on the environment. With the growing demand for data storage and processing, it is critical to address the need for sustainable data centers that can reduce their environmental impact while still meeting the growing demand for data.

In March 2023, DCA released a white paper, "[Sustainable Data Centers: Powering the Digital Revolution](#)," which explored the importance of sustainable data centers, their impact on the environment, and potential solutions to reduce their carbon footprint. Specifically, the paper proffered policy recommendations to improve the sustainability of data centers, including:

- Enabling "as-a-service" models for the public sector, including addressing barriers at the federal, state, and local levels.
- Identifying the next generation of performance metrics, trends, and improvements to develop the baseline for future policy actions.
- Promoting research and development on data center power and cooling efficiency.
- Developing a sustainability roadmap for the data center industry focusing on decarbonization, water, and energy.

Digital Solutions for Smart Buildings

To accelerate decarbonization of buildings, digital tools need to be utilized throughout every stage of the building's lifecycle. DCA is working on innovative digital solutions to make buildings smarter and more sustainable. By incorporating Building Information Modeling in design, low embodied materials during construction, and enhanced energy management systems for operations, we can ensure a data-driven transition that will have a lasting impact on our world.

To help the Federal government responsibly maintain and improve public buildings—which will also reduce buildings carbon emissions—the General Services Administration needs the ability to access and utilize the full amount of annual Federal Buildings Fund revenues and collections.

