

# DIGITAL CLIMATE ALLIANCE



March 23, 2021

The Honorable Tom Carper  
Chairman  
U.S. Senate Committee on Environment and  
Public Works  
410 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member  
U.S. Senate Committee on Environment and  
Public Works  
456 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Peter DeFazio  
Chairman  
House Committee on Transportation and  
Infrastructure  
2314 Rayburn House Office Building  
Washington, DC 20515

The Honorable Sam Graves  
Ranking Member  
House Committee on Transportation and  
Infrastructure  
1135 Longworth House Office Building  
Washington, DC 20515

Dear Chairmen Carper and DeFazio and Ranking Members Capito and Graves:

The [Digital Climate Alliance](#) (DCA) is a coalition of companies developing and utilizing digital technologies and tools to reduce their environmental impacts, as well as enable their customers to meet sustainability and resiliency goals. More and more companies are leveraging digital technologies and tools to reduce climate impacts, improve energy and water efficiency, and drive further innovation. The Alliance's goal is to promote digital technologies and tools to enable 21<sup>st</sup> century solutions, solving climate, water, and energy challenges that impact economic development, business growth, social well-being, and ecosystem health.

According to the 2019 [Exponential Climate Action Report](#) released at the World Economic Forum, "digital technologies could already help reduce global carbon emissions by up to 15% – or one-third of the 50% reduction required by 2030 – through solutions in energy, manufacturing, agriculture and land use, buildings, services, transportation and traffic management. This corresponds to more than the current carbon footprints of the European Union and the United States combined. But it is through the Fourth Industrial Revolution – particularly 5G, the Internet of Things (IoT) and artificial intelligence (AI) – that the digital sector can take the pace of change to the next level." The World Economic Forum report, [Harnessing the Fourth Industrial Revolution for Water](#) also highlighted the opportunities to address critical water issues for the public and private sector by scaling digital technology solutions.

As Congress develops and considers legislation promoting innovative infrastructure investments, the DCA would like to offer its support for the effort and outline recommendations to leverage digital tools to address climate change while promoting economic growth and improving quality of life for all Americans.



**Promote Sustainable Buildings and Infrastructure.** Digitalization is the foundation for a “climate-first” design and build approach, enabling governments, private asset owners, and the architecture, engineering, and construction industry to reduce material use and resource waste. Digital tools can also leverage analytics to reduce energy use and operate assets more sustainably. “Build back better” legislation that promotes economic recovery through smart infrastructure investment should leverage existing data systems and digital tools used in the private sector to design, operate, and maintain buildings and infrastructure that reduce carbon emissions and waste, thereby improving everyone’s quality of life. The DCA recommends the following policy actions to advance our nation’s next generation of smart infrastructure:

1. Provide incentives and assistance for states and localities to adopt digital design and construction management tools to help them design and build more resilient and sustainable infrastructure;
2. Increase support for the U.S. Department of Energy’s (DOE) Building Energy Modeling (BEM) program, and direct it to advance adoption of newest building optimization technology such virtual reality (VR)-based and digital twin technologies, lifecycle design and optimization, sensing and actuation for real-time space management, and adaptive space design;
3. Require federal agencies to give preference to lower-climate footprint products in the procurement of goods and services, including low-carbon materials procurement and processes for vertical (e.g., buildings, transit hubs, airports) and horizontal (e.g., roads and distribution networks) infrastructure;
4. Provide incentives for state and local deployment of digitally-enabled, intelligent transportation technologies to reduce congestion;
5. Deploy ambient environmental sensors in low-income communities and communities of color to monitor environmental conditions, specifically air and water; and
6. Promote the adoption of digital technologies and tools, such as artificial intelligence and satellite data acquisition and analytics, to improve water infrastructure management and resiliency.

The DCA looks forward to working with you in the coming months to build a better infrastructure system – one that leverages digital tools to help our nation address climate change and reduce carbon emissions.

## **The Digital Climate Alliance**

Autodesk, Enel, Intel, Johnson Controls, Nautilus Data Technologies,  
Schneider Electric, Trane Technologies, Utilidata, Xpansiv, Water  
Foundry