

Climate Pledge Arena Seattle

 CASE STUDY

Customer

Built nearly six decades ago on a 74-acre entertainment complex as part of the World's Fair, the Seattle Center Coliseum—reborn in 1995 as KeyArena—has now been transformed once again.

After working with global sports and entertainment company Oak View Group and the Seattle Kraken to strike a naming rights deal, Amazon announced that it wouldn't name the arena after a corporation. Instead, the name would recognize the e-commerce enterprise's commitment to The Climate Pledge: a call to organizations to achieve net zero carbon by 2040.

Climate Pledge Arena—home to the NHL's newest franchise, the Seattle Kraken, and the WNBA's Seattle Storm—is a unique mix of the past and the future. While Seattle Center Coliseum's landmark façade and roof were preserved, everything underneath and inside the iconic structure is new. It's also the first arena in the world powered solely by renewable energy.

To create room for 18,000+ seats, contractors dug 15 feet deeper into the ground while also going wider to double the existing square footage. In and around the arena, fans will enjoy ultra-fast wireless speeds supported by 5G as they download and stream content, video chat, collaborate and take advantage of immersive experiences.

The arena's sustainability goals include net-Zero Carbon Certification from the International Living Future Institute, elimination of single-use plastic, water conservation and 97% waste diversion. To track progress, it plans to share data about energy and water use on a quarterly basis, as well as how much waste is diverted from landfills.

To help Climate Pledge Arena become the world's most sustainable arena, Belden provided fiber and copper solutions backed by environmental product declarations

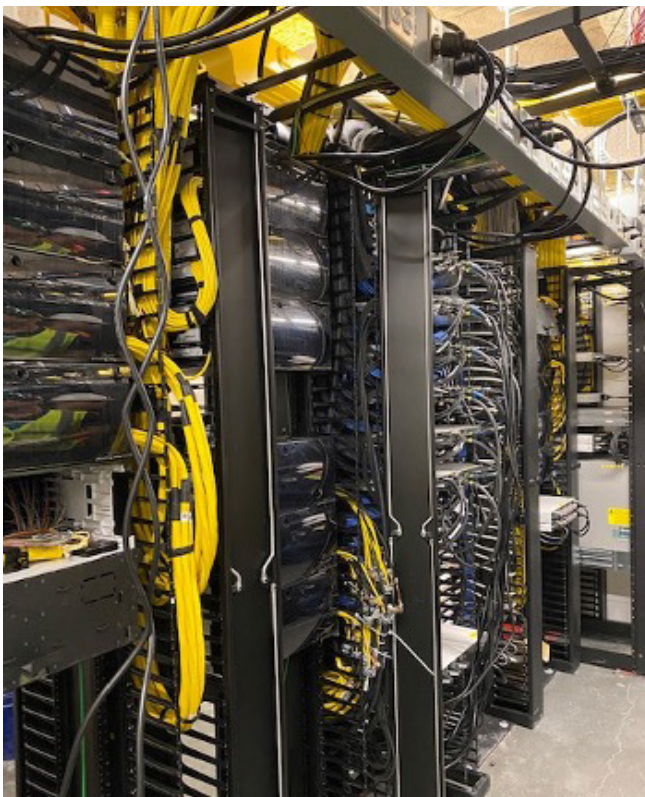
Challenge

Climate Pledge Arena wanted to work with partners that were committed to change, including manufacturers that could provide accurate data about the environmental impact of their products.

In addition, the location of the project—in the heart of Seattle’s Uptown neighborhood at Seattle Center—would make it difficult to receive deliveries, so manufacturers needed to be creative in terms of getting products to integrators to complete the work.

But the biggest challenge of all involved maintaining a completion date of October 2021—despite the onset of a global pandemic. During groundbreaking in December 2018, no one knew that COVID-19 would strike during the second half of the project. Because Seattle was one of the first U.S. cities to roll out restrictions, plans for jobsite access, shifts and crew size were reexamined to comply with guidelines.

To reach the target completion date, it was important to maintain a safe, healthy jobsite while also sticking to the original timeline—even though it was created without social distancing and jobsite limitations in mind.



Discovery

In 2016, Belden began conducting product lifecycle analyses as part of its commitment to measuring and reducing the environmental impact of its products. This data could be used not only to measure performance and track progress, but also to provide Climate Pledge Arena with the information it needed to make informed decisions about products.

Over time, Belden had also established a trusted relationship with Oak View Group, which led arena redevelopment and operations. Belden’s end-to-end cabling and connectivity solutions are used in many of the company’s projects across the country.

Solution

To meet ambitious sustainability objectives, Climate Pledge Arena followed sustainable construction practices and sourced environmentally responsible materials. Thanks to environmental product declarations (EPDs), certified by a third party, Belden was able to share product-lifecycle data so the arena could make informed decisions. EPDs disclose the environmental performance of an individual product based on a lifecycle assessment (LCA), which examines raw material acquisition, manufacturing, marketing, distribution/shipping, use of the product and product disposal.

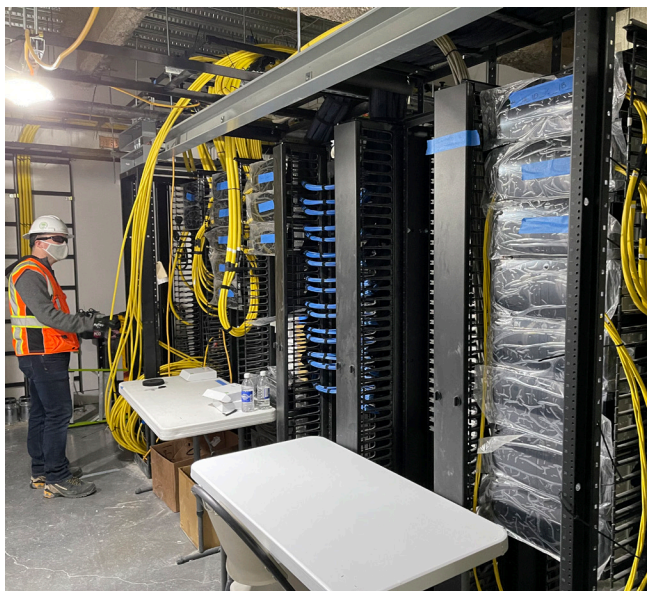
To create its enterprise network infrastructure, the arena relied on Belden FiberExpress cable, Fusion Splice-On Connectors and Enterprise Closet X® (ECX) Patch Panels, as well as REVConnect®



Category 6A cable, REVConnect Connectivity and racks and cabinets. Digital Electricity™ Cables also support the arena's distributed antenna system (DAS) infrastructure for enhanced cellular connectivity.

The fast and reliable termination process offered by REVConnect Connectivity saved valuable time while also reducing rework. Upon termination, connections can be tested to ensure proper performance. From there, cables can be pushed back into the wall or ceiling so finishing contractors can complete their work. Afterwards, a jack or plug body and faceplate can be installed. This process allowed low-voltage installers to complete work to a certain point and then vacate the site so other contractors could come in, preventing trades from crossing paths to create a safer work environment.

Fusion Splice-On Connectors were used to combine the benefits of fusion splicing with the simplicity of a field-installable connector to improve installation



performance and reliability over mechanical splice connectors. Because no crimping, polishing or adhesives are required for termination, errors and installation time were reduced.

On big projects involving hundreds of miles of cable and tens of thousands of connectors, unexpected issues and challenges are bound to arise—especially amid a pandemic when workers are under increased pressure and tighter schedules. When a few of the 7,000+ fiber connectors were damaged while still in their original packaging, Belden was able to move quickly to get replacement components right away—even amid material shortages and shipping delays.

“On projects like these, something always goes wrong,” says Josh Miskar, principal at manufacturer representative firm Axiom Technologies. “But Belden did a really great job of making any problems right, and everyone is very pleased with how things were handled.”



Results

Despite the pandemic, Climate Pledge Arena opened right on schedule in October 2021.

“At the time, every manufacturer was having problems producing material, and there were ridiculously long lead times everywhere,” says Miskar. “During this project, integrators came to us several times saying, ‘Hey, we need something right now.’ Even when no one across the country had REVConnect Jacks, Belden was able to get 400 delivered in less than a day. Despite manufacturing not being able to get raw materials, they’ve been able to make sure the job doesn’t slow down.”

As the world’s most progressive and environmentally responsible entertainment complex, Seattle’s Climate Pledge Arena is setting an inspiring new standard in green, sustainable design while encouraging other organizations to make strides toward reducing carbon emissions through regular reporting, carbon elimination and offsets.

Belden cabling and connectivity infrastructure will ensure that the complex can deploy whatever technology is necessary to achieve net-Zero Carbon Certification, eliminate single-use plastic, conserve water and divert waste.



About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today’s applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

For more information, visit us at [belden.com](https://www.belden.com).



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