



## ISOTRUSS ENGINEERS CRITICAL TOWER SOLUTION FOR WYOMING BUREAU OF LAND MANAGEMENT

*Lightweight and Durable IsoTruss® Carbon Fiber Tower Addresses High Winds, Snow and Ice Impacting Remote Elk Mountain Communications Infrastructure*

Springville, UT—October 3, 2022—[IsoTruss, Inc.](#), an engineering, design, and manufacturing services provider, today announced the installation of a lightweight, durable IsoTruss® carbon fiber cell tower solution for the [Wyoming Bureau of Land Management](#)'s remote critical communications infrastructure located at the top of Elk Mountain, Wyoming.

[Nathan D. Rich, Founder and CEO, IsoTruss, Inc.](#), said, "Our team utilizes IsoTruss® geometry, made with composites, to provide creative engineering applications to difficult problems. The Elk Mountain IsoTruss® tower is a great example of our helping a client resolve an ongoing repair and maintenance issue at a remote critical infrastructure site with a sustainable, innovative solution."

The Elk Mountain system shelter, which features an articulating tower mast, is a major communications site servicing approximately 180 square miles. The Wyoming BLM manages emergency communications for wildland fires, along with any aircraft--including federal aircraft--helping with wildland fires, as well as managing communications with administrative and other staff, such as biologists conducting field activity for the BLM.

Due to high winds of up to 120 mph, along with 9-to-10 feet of snow and ice during winter, the steel tower mast repeatedly snapped at the bolts, or hinging section, over the past four years, causing the tower antenna to end up on the ground multiple times. IsoTruss engineered and transported a 40 foot IsoTruss® carbon fiber tower weighing 250 lbs., then bolted and connected it to the existing system shelter. The lightweight IsoTruss® tower was delivered to the remote site with a light-duty truck and installed using a small workforce in a single day.

"The original tower kept breaking at the hinge, and we needed a solution, but in this situation, it had to be customized," said Vance Andersen, BLM Wyoming Tele-Com Manager. "IsoTruss was able to design a tower solution that fit like a glove, which was very impressive. They did a great job. Plus, at BLM, we deal with lifecycle use, so in addition to the lightweight attribute of the structure, what really caught my eye was the lack of carbon footprint that it leaves by producing it. At BLM, we're trying to take care of the lands, so we want to make sure that we try for the least impact as possible for the environment."

IsoTruss® carbon fiber cell towers reduce material usage by twelve times on a weight basis, resulting in 70% reduction in carbon emissions over the life of the tower.

IsoTruss® solutions are well-suited to high wind, snow and ice environments in mountain settings and hurricane/typhoon-prone regions. This is mostly due to the corrosion-resistance of the composite material and the superior wind resistance of the IsoTruss® lattice geometry, which extends product lifetimes by five times over steel solutions.

[Each IsoTruss® cell tower](#) is designed and manufactured to meet the firm's own rigorous design and production standards, various local, state and federal regulations, and Telecommunications Industry Association (TIA®) and AASHTO standards.

With a global portfolio of more than thirty patented and patent-pending structural and composite material designs that protect not only the configurations but also the manufacturing processes,

IsoTruss, Inc., is committed to building the sustainable infrastructure of the future through [innovative solutions](#) in engineering, design, manufacturing and construction.

IsoTruss, Inc. is an active member of the Institute of Advanced Composites Manufacturing Innovation (IACMI), a Manufacturing USA institute established by the U.S. Department of Energy. IACMI's mission is to accelerate advanced composite design, manufacturing, technical innovation and workforce solutions to enable a cleaner and more sustainable, more secure, and more competitive U.S. economy.

For more information, please visit <https://www.isotruss.com/faq> or contact [info@isotruss.com](mailto:info@isotruss.com).

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**IsoTruss, Inc. | 2414 West 700 South, #100 | Springville, Utah 84663**

IsoTruss Inc., an engineering, design, and manufacturing services provider, produces patented IsoTruss® lattice cell towers for the telecommunications industry. IsoTruss® cell towers, fabricated with composite material, are lightweight, durable, cost-effective, corrosion-resistant, sustainable, and eco-friendly. Utilizing its family of patented, composite material grid structures, the enterprise offers R&D capabilities, applications, and solutions in telecommunications infrastructure, aerospace, civil infrastructure, energy, construction, leisure, and more.

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