



Ramaco Carbon Appoints Director of Innovation, Will Oversee Company's Technology Development

Charles Hill brings over three decades of experience in materials engineering, product design, manufacturing, and project management



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SHERIDAN, WY — Ramaco Carbon (“Ramaco”), a coal technology company with operations in Wyoming and West Virginia, announced today it had hired Charles Hill to serve as Director of Innovation. Hill will oversee the company’s “coal-to-products” technology activities, with an initial focus on Ramaco’s efforts in developing carbon fibers and composites from coal precursors. He will be principally based at Ramaco’s Sheridan, Wyoming office.

Hill brings a deep background and experience in composite materials and process engineering to his new position, including 13 years of work with NASA and a decade with the Air Force Research Laboratory. He has also worked with a range of private groups, many of them contracted by such organizations as Lockheed Martin and the Air Force Materials Laboratory Composites Branch.



Most recently, Hill has focused on materials and process technical consulting, and has also worked with Oak Ridge National Laboratory to develop forms of large-scale additive manufacturing. He is the recipient of two Johnson Space Center Awards from NASA for his exceptional work, and is a member of the Board of Directors' of the Institute of Advanced Composites Manufacturing Innovation (IACMI).

Hill joins Ramaco during a pivotal transition for the company. The first iCAM (Innovation of Carbon Advanced Materials) center will open this fall in Sheridan, Wyoming. A second iCAM center is scheduled to open in West Virginia later this year. These facilities will foster research to develop high-value carbon products and materials from coal, such as carbon fiber, graphene, and carbon related building and life science products.

"I have researched carbon science throughout my career and feel the carbon community is poised for major new breakthroughs in the near term," said Hill. "I'm excited to work with Ramaco Carbon, the strategic corporate leader in this field to help bring some of this exciting research out of the lab and into commercial markets."

In recent years, Ramaco Carbon has built a national network of research support at universities, scientific institutes, Department of Energy (DOE) National Labs and other government organizations to support "coal-to-products." The company recently formed a partnership with ORNL to develop "coal-to-product" technologies and innovations and has had a similar partnership in place with the National Energy Technology Laboratory since 2018.

The DOE also announced last September that Ramaco was the lead recipient or a sub-recipient of over \$5 million in new federal grants to support Ramaco's efforts. The company is also in its third year as the industry partner on a separate \$5 million DOE-funded grant project in Wyoming nicknamed "Coal to Cars." The project is aimed at using coal as a precursor to lower the cost of manufacturing carbon fiber for use in the automotive industry.

"With the current focus on alternative uses of coal, combined with the right talent and support, the pace of innovation around 'coal-to-products' is poised to



accelerate,” said Randall Atkins, Ramaco Carbon CEO and Chairman. “Charles brings a deep well of commercial and research-related experience to this role. We look forward to working with him to keep pushing Ramaco and the entire carbon field forward.”

Ramaco Carbon is the nation’s first vertically integrated “coal technology” entity, combining coal resources, research and manufacturing under one platform. For more information visit www.ramacocarbon.com.

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