

# Cargill introduces FR3r™ natural ester a new rapeseed dielectric fluid



**AS THE ORIGINAL NATURAL ESTER MANUFACTURER, CARGILL CONTINUES TO EXPAND OUR PORTFOLIO OF HIGHLY RENEWABLE PLANT-BASED SOLUTIONS FOR INDUSTRIAL NEEDS AROUND THE GLOBE AND THE LAUNCH OF FR3r FLUID IS ANOTHER EXAMPLE OF HOW WE'RE MEETING THE NEEDS OF OUR CUSTOMERS TO ACHIEVE THEIR SUSTAINABILITY GOALS.**

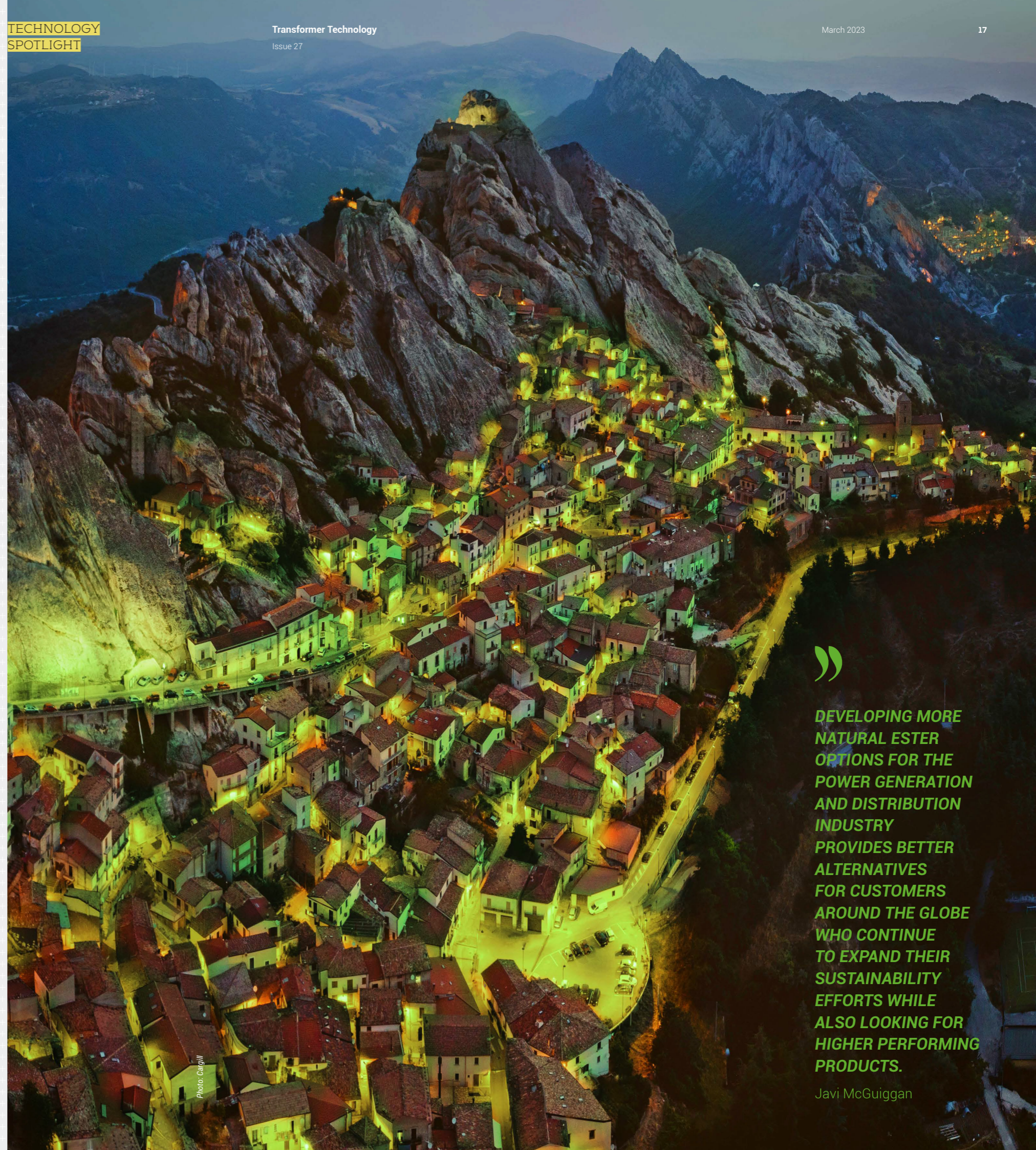
Javi McGuiggan

Cargill, the global ag and bioindustrial firm, has launched FR3r™ natural ester, a new transformer insulating fluid derived from more than 95% rapeseed oil.

Utilities, transformer manufacturers and commercial building owners around the globe seeking a higher performing, more reliable and more sustainable insulating fluid than mineral oil now have a 100% biodegradable natural ester option made from the renewable rapeseed plant.

"As the original natural ester manufacturer, Cargill continues to expand our portfolio of highly renewable plant-based solutions for industrial needs around the globe and the launch of FR3r fluid is another example of how we're meeting the needs of our customers to achieve their sustainability goals," said Javi McGuiggan, global category leader in Cargill's Bioindustrial group. "Developing more natural ester options for the power generation and distribution industry provides better alternatives for customers around the globe who continue to expand their sustainability efforts while also looking for higher performing products."

Compared to traditional mineral oil, FR3r fluid continuously dries paper insulation without creating any harmful by-products or sludge, which makes transformers more reliable to help meet the challenging and growing demands placed on the power grid, and contains no petroleum, halogens, silicones or sulfurs. FR3r fluid's superior moisture management extends insulation life up to eight times longer compared to mineral oil, increasing the life of the transformer, and requires no maintenance under normal operating conditions.



**DEVELOPING MORE NATURAL ESTER OPTIONS FOR THE POWER GENERATION AND DISTRIBUTION INDUSTRY PROVIDES BETTER ALTERNATIVES FOR CUSTOMERS AROUND THE GLOBE WHO CONTINUE TO EXPAND THEIR SUSTAINABILITY EFFORTS WHILE ALSO LOOKING FOR HIGHER PERFORMING PRODUCTS.**

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Plant-based natural ester continues to replace traditional mineral oil in transformers around the world as users seek more sustainable and more reliable solutions. Along with being 100% biodegradable, FR3r fluid is also non-toxic in soil, water, and to humans and wildlife.

FR3r fluid is K-class certified, helping mitigate the risk of fire because of its exceptionally high flash point of 360°C compared to only 160°C with mineral oil. Because of its excellent high heat capabilities and up to 140°C top fluid operating temperature, FR3r fluid filled transformers can achieve up to 20% more loading capacity compared to mineral oil, meaning transformers can be designed to be more power dense and be smaller with the same loading capacity, the same size with up to 20% more loading capacity, or anywhere in between.



Backed by Cargill's extensive technical and manufacturing expertise from over 25 years of successful applications of the original natural ester (FR3™ fluid), FR3r natural ester meets or exceeds all IEC 62770 and IEE C57.147 standards.

FR3r joins a diverse portfolio of [Cargill Bioindustrial](#) plant-based solutions for a variety of manufacturing needs including asphalt rejuvenation, immersion cooling, adhesives and binders, wax and lubricants.



Photo: Cargill