

## **Ampaire Successfully Conducts Hybrid Electric Ground Test Using Dimensional Energy's Pure Sustainable Aviation Fuel**



*Ampaire Inc., a global leader in hybrid electric aircraft systems, conducted its first ground test utilizing pure 100 percent ASTM D7566 Sustainable Aviation Fuel (SAF) produced by Dimensional Energy from electricity and carbon dioxide.*

*Both Ampaire and Dimensional Energy Received Investment from Elemental Excelsior to Decarbonize Aviation*

Hawthorne, CA – February 22, 2024 – Ampaire Inc., a global leader in hybrid electric aircraft systems, has achieved a significant milestone in sustainable aviation by completing its first ground test utilizing pure 100 percent ASTM D7566 Sustainable Aviation Fuel (SAF) produced by Dimensional Energy from electricity and carbon dioxide.

This breakthrough reimagines 100 percent electric flight by pairing Dimensional Energy e-fuels and Ampaire's hybrid electric propulsion systems. Ampaire's innovation demonstrates revolutionary efficiency by more than doubling the efficiency of SAF usage. This technology advancement makes more effective use of rapidly scaling technologies advancing the future of eco-friendly flight. Elemental





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Excellerator's investment into these two companies and their subsequent collaboration have resulted in a more than two-fold increase in the efficiency of SAF.

Ampaire conducted rigorous ground testing using its Eco Caravan hybrid electric aircraft to validate the performance and viability of Dimensional Energy's pure e-fuel SAF. The results exceeded expectations, demonstrating a remarkable increase in efficiency compared to traditional aviation fuels.

Ampaire's AMP-H570 AMP Drive™ hybrid electric propulsion units are capable of 50 to 70 percent reduction in fuel and emissions as compared to conventional Pratt & Whitney PT6 turboprop engines typically found in Cessna Caravan turboprops. Combining the hybrid electric propulsion with SAF fuel more than doubles the efficiency and drives emissions to near zero.

Kevin Noertker, CEO of Ampaire, emphasized the significance of this milestone, stating: "The successful ground test using pure SAF from Dimensional Energy marks a pivotal moment in our journey towards sustainable aviation. By showcasing the transformative efficiency gains achievable through hybrid electric propulsion, we are driving the future of eco-friendly air travel. For those already recognizing the potential of SAF, its integration into our hybrid electric aircraft enhances its appeal even further."

SAF, derived from renewable resources, has emerged as a key solution to reducing aviation's carbon footprint. Dimensional Energy has two ongoing projects which will add significant inventory to the world's availability of e-fuels. By scaling hybrid electric technology and SAF for aviation, there is an additional opportunity to address the quality and cost concerns associated with SAF, paving the way for even broader use in the aviation industry.

"Technology providers have to collaborate beyond innovation and into execution. By combining Dimensional Energy e-fuels with Ampaire's aircraft technology that can reduce the amount of fuels combusted during flight, we quicken the pace up the steep curve of the energy transition and reduce the need for extraction faster," said Jason Salfi, CEO of Dimensional Energy. "We are thrilled to collaborate with Ampaire on this groundbreaking initiative. Our partnership underscores our commitment to advancing sustainable aviation fuel solutions that offer tangible benefits to the aviation industry and contribute to a greener future."

Elemental Excellerator, a nonprofit investor focused on scaling climate technologies with deep community impact, has provided project development capital and multiple years of hands-on support to



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help scale Ampaire and Dimensional Energy's technologies. "Today's announcement by two Elemental portfolio companies, both leaders in their fields, is exactly the kind of collaboration we imagined when investing in Ampaire and Dimensional Energy," said Dawn Lippert, CEO of Elemental Excelsior. "Their innovations reduce pollution and noise in neighborhoods around airports, and make possible a cleaner way to fly."

Ampaire, Dimensional Energy and Elemental Excelsior remain dedicated to pushing the boundaries of aviation technology and accelerating the transition towards a greener, more sustainable future. Through this strategic partnership, groundbreaking research, and relentless innovation, these three sustainability-focused organizations continue to lead the charge in decarbonizing the way we fly.

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**About Ampaire:**

Los Angeles-based Ampaire was founded in 2016 with a mission to become the world's most-trusted developer of practical, compelling electric aircraft. The company has developed a platform of hybrid electric and electric propulsion technologies applicable across numerous aircraft types. Upgrading existing aircraft to hybrid electric power is Ampaire's rapid, capital efficient approach to making commercial electric air travel a reality with available technology. Ampaire has scored a series of industry firsts since the 2019 maiden flight of its Electric EEL technology testbed aircraft, including the longest endurance flight for a hybrid electric aircraft— twelve hours and 1,400 statute miles. In addition, the EEL has successfully completed missions spanning Hawaii, Ireland, Canada, Alaska, Arizona, and California. In



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2022, Ampaire's hybrid electric Eco Caravan, the world's largest hybrid electric aircraft, achieved its first flight. For more information about Ampaire, <https://www.ampaire.com/>. View our press kit [here](#).

**About Dimensional Energy:**

Dimensional Energy, founded in 2016, is a global leader in carbon-to-value technology. The company has offices in Houston, TX, catalyst laboratories and advanced prototyping in Ithaca, NY, operates a fully integrated pilot plant in Tucson, AZ, and Richmond, British Columbia. Dimensional Energy's Tucson Technology Center serves as a testing ground for scaled technology and workforce development for a growing list of commercial plants around the world. Dimensional Energy is a full-service technology and engineering firm that can support commercial deployments for project developers, industrial carbon emitters, and strategic partners. For more information visit [www.dimensionalenergy.com](http://www.dimensionalenergy.com).

**About Elemental Excelsator:**

Elemental is a nonprofit investor in climate technologies with deep community impact. We bring more than a decade of experience across the climate sector, with an active and maturing portfolio of 150+ companies. Elemental fills two gaps fundamental to addressing climate change: funding projects for climate technologies in communities, and embedding equity and access into climate solutions. To learn more about Elemental's team and our work in scaling climate technology with community impact, visit [www.elementalexcelerator.com](http://www.elementalexcelerator.com).

