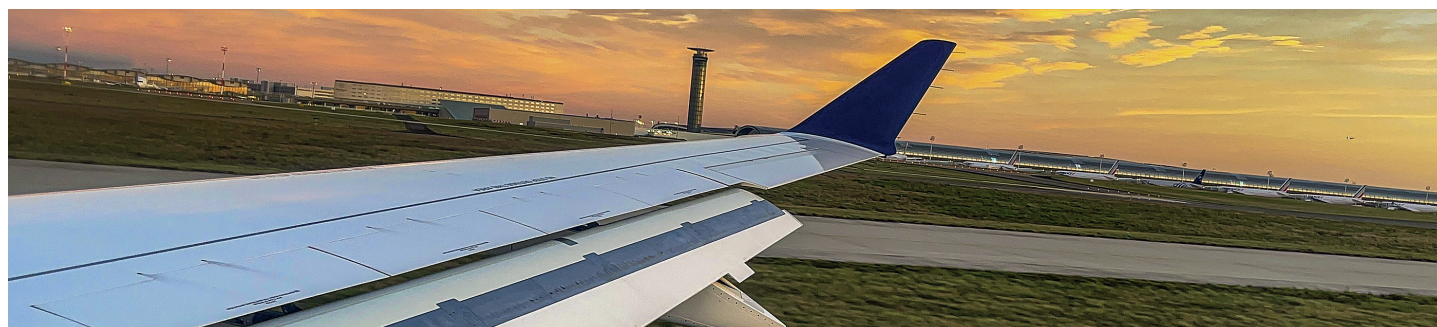


New laboratory will include ability test sustainable aviation fuels

Ready for take-off



The laboratory will be able to serve the renewable diesel and SAF production facilities both nationally and internationally

Renewable diesel, including sustainable aviation fuels (SAF), is really taking off in and around Fort Dodge, Iowa.

Several active projects in the renewable fuels space have considered locating to the industrial agriculture park just outside our city limits.

According to Derick Anderson, Project Engineer at McClure Engineering: “McClure Engineering, working in partnership with the Greater Fort Dodge Growth Alliance, has seen more economic development opportunities than ever before.

“Many of these revolve around biofuels and the growing market for sustainable energy.

Due to this activity, the City of Fort Dodge and Webster County have accelerated their infrastructure planning for these developments. This includes potable water, wastewater treatment, and roadway and railroad projects.

“We enjoy the partnership with Iowa Central Community College and the biofuels lab facilities, and we are excited what these new SAF capabilities will do for our region.”

Growing demand

National goals and incentives have been established to encourage growth in the production and use of renewable diesel and SAF.

For example, in 2021 the US Congress introduced the Sustainable Aviation Fuel Act to reduce greenhouse gas emissions from aviation activities with a goal to achieve a net 35% reduction in greenhouse gases from aviation by 2035 and hopes to achieve net-zero emissions by 2050.

The US Environmental Protection Agency (EPA) has set its own goals to reduce aviation greenhouse gas emissions by at least 50% by 2050.

Since the start of this fiscal year, the US Department of Defense has been making bulk purchases of SAF that is at least 1 % of the total amount of aviation fuel procured for operational purposes.

In anticipation of increased production, the Clean Fuels Alliance America has set a vision to produce 6 billion barrels of renewable diesel and SAF by 2030 and over 15 billion barrels by 2050.

The Iowa Central Fuel Testing Laboratory has recognised the tremendous growth potential for renewable diesel and SAF and has set out its own vision for how to serve the needs of this industry.

Dr Jesse Ulrich, president of Iowa Central, announced this year that the college had set aside \$7.2 million (€6.78 million) for the construction of a new, state-of-the-art fuel testing facility that will be located adjacent to the main campus in Fort Dodge.

Construction is under way with an anticipated move-in date of late summer next year.

In addition to the lab’s regular fuel testing services, two stand-out features into the design of this facility have been incorporated.

The first feature will be the inclusion of a built-for-purpose test engine room that will house two Octane rating engines and a Cetane rating engine.

With expert help and guidance from Compass Instruments from Sugar Grove Illinois, the room and its accessory spaces have been designed to exacting specifications and will be ready for installation of the engines once procured.

The ability to have this information in hand during the design phase of the building was a significant advantage rather than having to retrofit an existing space in the future.

The second feature will be the inclusion of several new instruments that will give the laboratory the capability to perform the ASTM D1655 Jet Fuel panel in-house.

This will greatly enhance its ability to serve the renewable diesel and SAF production facilities locally, nationally and internationally. In addition, the laboratory will extend its current accreditation programmes to include the ISO 17025 program for jet fuel testing.


According to Debi Durham, Director of the Iowa Economic

Development Authority: “Iowa is a powerhouse when it comes to biofuels and biorenewables, thanks in large part to the state’s natural resources, leadership in renewable energy and our strong agricultural heritage.

“Due to the state’s abundance of biobased feedstocks, Iowa is uniquely well-positioned to drive the future of renewable fuels and the Iowa Fuel Testing Laboratory in Fort Dodge further cements our ability to accelerate the development of lower carbon solutions in transportation and support businesses in this sector.”

According to Mike Naig, Iowa Secretary of Agriculture: “Iowa is already the national leader in biofuels production, but the sky’s the limit on how many additional bio-based products can be made here for use by consumers in the US and around the world.

“Continued investment and innovation will lead to new domestic and global markets for bioplastics, sustainable aviation fuel and many other low-carbon products, all of which will add more value to our crops and create new jobs and businesses in Iowa.”

The Iowa Central Fuel Testing Laboratory stands ready to support the Global Biofuel Industry as it continues to innovate, grow and mature. 

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