

Success Story



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Advanced Engine Technology Ltd. | Ottawa

OCE backs AET's drive for better diesel

Ignition Quality Tester (IQT) creates a cleaner diesel blend for lower exhaust emissions

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Gary Webster
President
Advanced Engine Technology Ltd.

As the cost of oil rises, so too does the demand for diesel fuels – so much so that worldwide, the demand for diesel is outpacing the demand for gasoline.

Across the globe, diesel refiners are striving to increase their capacity to produce a fuel that is a staple for the commercial transportation and shipping sectors because of its strong fuel efficiency.

Ottawa-based Advanced Engine Technology (AET) Ltd. is embracing this demand and providing the world’s oil industry with a new way to make diesel fuel a little cleaner with a faster, more efficient testing process that produces a higher-quality diesel fuel with lower exhaust emissions.

With support from the Ontario Centres of Excellence (OCE), a growing number of diesel refineries are joining major oil companies like BP, Chevron and Shell in using AET’s Ignition Quality Tester (IQT™) to produce a better diesel blend.

The award winning IQT is a compact instrument that measures the quality of diesel fuels, specifically the cetane number (CN). Diesel refineries are bound by law to comply with CN legislation - a regulated specification that defines diesel fuel’s ignition quality.

Many refineries still rely on outdated equipment to determine the CN. These testing techniques and equipment are considered slow, inefficient and unreliable. In contrast, AET’s IQT testing produces precise and reliable results in less than

20 minutes, compared to the current two-hour process. The IQT also requires minimal training for operation.

OCE supported the development of AET’s technology with its own blend of research support, technical help and business planning guidance. “OCE has played a key part in the company’s R&D efforts to help improve instrument precision and to reduce instrument test periods,” said Gary Webster, AET’s President. “But OCE’s involvement goes well beyond the lab. Just being named as an OCE Mind to Market Award finalist led to event invitations and new connections that have led to product orders.”

OCE continues to work with AET (now boasting 25 employees, with a 38% employee growth rate over the last three years) and Carleton University to make the IQT even more efficient. And, OCE student programs are enabling the company to hire recent graduates for added engineering and project management support.

No matter the fuel being tested, OCE, Carleton and AET will help diesel refineries produce improved fuels that are good for business and the environment.

