

PRESS RELEASE: Malawi's Ethanol Distillery, PressCane Limited, to Generate Renewable Electricity and Heat from Biogas with Help from Clarke Energy and INNIO Jenbacher

- Malawi's Ethanol Distillery PressCane Limited, to generate renewable power and heat from biogas generated from wastewater treatment plant.
- Clarke Energy has supplied two INNIO Jenbacher biogas engines capable of generating 2.1 MW of renewable power and heat to be used for site's own power with potential for export to the local electricity distribution network
- Project will support the local generation of ethanol biofuel helping to produce sustainable fuel and decarbonise the country's petroleum supplies.

Chikawa, Malawi, August 9, 2021 – Clarke Energy has secured the sale of two INNIO Jenbacher biogas engines to PressCane Ltd, a distillery based in Malawi. The Ethanol production site generates biofuel in the form of ethanol which is blended with petrol and sold by Oil Marketing Companies to motorist throughout Malawi. Their anaerobic digestion plant sustainably treats effluent arising from the site and in parallel generates biogas which will be used as a renewable fuel for the biogas engines.

Press Cane Ltd is a subsidiary of the conglomerate Press Corporation Limited and began its operations in June 2004. The plant is located in Chikhwawa on the west bank of the Shire River about 30 km north of Nchalo and 55km south of Blantyre, employing about 80 permanent Malawians. The site produces ethanol, a biofuel, from fermented sugarcane molasses. This ethanol is then used to increase the renewable energy content of local petroleum fuels at a ratio of 20% ethanol to 80% petrol. It also reduces the country's reliance on importation of fossil fuels for transportation.

The two INNIO Jenbacher J320 gas engines -- supplied by Clarke Energy as a combined heat and power plant -- are capable of delivering 1,063 kilowatts (kW) of electricity each, bringing the total generation capacity to 2,126 kW. In addition, the customer will recover heat from the engines in the form of steam via boilers with approximately 2,000 kW of additional renewable heat available to support the site's heating needs.

SS Techno Limited, India, a leading technology company in turnkey Zero Liquid Discharge systems for Industrial Wastewater, served as the project consultant. After technical and commercial assessments, Clarke Energy received the recommendation.

Press Cane Ltd's Chief Operations Officer, Bryson Mkhomaanthu, commented, "The utilisation of biogas generated from our wastewater treatment plant will not only produce renewable power and heat for our sites operations, it will also fulfil the Company's ambitions of being the leading supplier of sustainable fuels sources to the local industry."

Mr. J Natesan, Head of Marketing at SS Techno Ltd, commented, "We selected Clarke Energy and INNIO's Jenbacher biogas engines following a comprehensive assessment of the best partners to deliver this project in Malawi. Clarke Energy has extensive experience in supporting power production from distillery effluent in India and a local aftersales support network for the biogas engines in Malawi."

Alex Marshall, Group Business Development and Marketing Director, Clarke Energy commented, "We are honoured to be able to support this innovative project not only generating renewable power and heat to support resilience at a Press Cane site in Malawi, but also to support the generation of sustainable transport fuels for the country."

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Notes to editor

About Press Cane Ltd

Press Cane Ltd is an ethanol distillery company which is a subsidiary of the conglomerate <u>Press</u> <u>Corporation Limited</u> and began its operations in June 2004. The plant is located in Chikhwawa on the west bank of the Shire River about 30 km north of Nchalo (55km south of Blantyre) and employs 80 permanent Malawians.

The main products of the distillery are fuel ethanol also known as anhydrous alcohol (AA 99.5% v/v) and industrial alcohol (rectified spirit 95.0 - 97.0% v/v). Sugar cane molasses are procured from Illovo in Nchalo and fermented into ethanol. The molasses is a by-product (effluent) for the Illovo Sugar Mill process whose environmental disposal issues have been solved by the establishment of PressCane Limited.

The fuel ethanol is blended with petrol in the ratio 20% ethanol to 80% petrol by the petroleum companies such as Puma Energy Malawi Limited, Petroda, Engen, Energem Petroleum Limited and Total Malawi Limited. Fuel blending in Malawi (and indeed elsewhere) was precipitated by the fuel energy crisis in the early 1970s. Today fuel blending is mostly driven by: Environmental clean air issues and the recognized rapid depletion of the traditional fossil fuels and thence the necessity of renewable energy sources. There are further considerations which apply to Malawi such as the need to save on foreign exchange. The surplus ethanol after national blending requirements have been met is exported generating foreign exchange for Malawi

About INNIO

INNIO is a leading provider of renewable gas, natural gas, and hydrogen-based solutions and services for power generation and gas compression at or near the point of use. With our Jenbacher and Waukesha gas engines, INNIO helps to provide communities, industry and the public access to sustainable, reliable and economical power ranging from 200 kW to 10 MW. We also provide life-cycle support and digital solutions to the more than 53,000 delivered gas engines globally, through our service network in more than 100 countries. We deliver innovative technology driven by decarbonization, decentralization, and digitalization to help lead the way to a greener future. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, U.S. For more information, visit the company's website at <u>www.innio.com</u>. Follow INNIO on <u>Twitter</u> and <u>LinkedIn</u>.

About Clarke Energy

Clarke Energy, a Kohler company, is a leader in the engineering, design, installation and long-term maintenance of gas engine-based power plants. The company is an authorised distributor for INNIO Jenbacher in 27 countries. Clarke Energy employs over 1,200 staff and has over 7.3 GW of Jenbacher gas engines installed globally, 1.4GW of which is from biogas, a renewable fuel.

Clarke Energy has installed over 700MW of power generation on the African continent. Clarke Energy has extensive experience of generating sustainable electricity and heat from the distillery sector gained in India and the United Kingdom.

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