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IChemE Global Awards 2020 Highly Commends CPFD and TRI

The Institution of Chemical Engineers' charter is to advance chemical engineering worldwide. The IChemE Global Awards recognize and celebrate chemical and process engineering excellence. They are deemed the world's most prestigious chemical engineering awards and recognize outstanding engineering advancements, processes, projects, people and companies.

The IChemE Global Awards 2020 have selected and announced the CPFD and TRI joint entry, "Digital Technology Enables Novel Waste-to-Fuels Process" as Highly Commended for the Process Automation and Digitalisation Award.

ThermoChem Recovery International (TRI) innovates and integrates clean technologies for biorefineries and waste-to-fuels processes which are socially responsible, sustainable, efficient, economical and reduce waste. Integrated biorefineries are facilities that use waste conversion processes to produce renewable fuels, chemicals and power from these waste feedstocks and facilitate decarbonization and foster a circular economy. They are analogous to petroleum refineries which produce fuels and other products from fossil petroleum, but at significantly reduced Greenhouse Gas emissions and lower carbon intensity. Waste-to-fuels processes convert locally-available waste products (forest residuals, agri-waste, animal waste, Municipal Solid Waste (MSW), etc.) into fuels and chemicals.

True sustainability for such processes goes beyond the fundamental environmental impact of waste reduction, generating products with reduced carbon foot print, matching the economics of fossil sources. As such, sustainable biorefineries and waste-to-fuels processes must be sufficiently robust to process an exceptionally wide range of locally-available feedstocks. For this reason, all of TRI's technology development is undergirded by a decade-long R&D program which is fully complemented by CPFD Software's Barracuda Virtual Reactor digitalization technology.

TRI's proprietary steam reformer gasification technology is the enabling technology behind the processing of widely-varying feedstocks. Virtual Reactor simulation has been utilized at test, pilot and commercial scales for multiple feedstocks including black liquor, various biomass sources, and MSW, enabling the flexible and rapid deployment of sustainable fuels and chemicals biorefineries. TRI's gasification technology has already been commercialized to convert black liquor into syngas and recoverable chemicals, and is currently being deployed to convert MSW to jet fuel.

We thank the IChemE team and the judges and this year's sponsor Aveva for the Process Automation and Digitalisation award. We also thank CPFD software for embarking on this digitalization journey with us and being a great partner.

Our congratulations to the winner GSK, UK and to Saudi Aramco, who was also Highly Commended in this award category.