





Anellotech pilot plant campaign surpasses 5,000 hours of operations, achieving both yield and reactor outlet oxygenate targets



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Big news from Anellotech this month – our TCat-8® pilot unit in Silsbee, Texas has surpassed 5,000 hours of onstream operations since August 2018 and the viability of our Bio-TCatTM technology has now been proven by achieving commercially-targeted yields.

Process yields of 22-24% by weight of liquid products from loblolly pine feedstock were demonstrated. Supplemental carbon monoxide (CO) output provides potential for an additional 3-5% yield by weight of cellulosic ethanol via third-party technologies or production of renewable electricity.

The Bio-TCat[™] reactor produces a liquid product containing over 98% C6+ aromatic chemicals with low oxygenate content (less than 3% of elemental oxygen) directly from MinFree[™]-pretreated feedstock. After mild hydro-treating and purification, preparation of high purity bio-based paraxylene and bio gasoline blendstock that meet all specifications for sale has been demonstrated. Investigations have started on upgrading the distillate cut to demonstrate the promise of Bio-Jet Fuel and Bio-Diesel blendstocks.

Anellotech is now planning the construction of our first commercial plant and is engaging in partnership and funding discussions with existing and new strategic partners. Engineering work is expected to begin this summer and once funding is secured, the next phase of construction will begin in the second half of 2020. The first plant will be capable of processing 500 bone dry tonnes/day of loblolly pine wood into 40,000 tonnes/year (860 BPSD) of products including benzene, toluene, xylenes, and C9+ aromatics to use as fuels or for making bio-based plastics for packaging and consumer products. 30,000 tonnes of carbon monoxide (CO) and other by-product gases will also be produced, for use in generating renewable electricity or used for chemical feedstock.

Alongside our partner Axens, we are looking forward to licensing much larger plants following this first commercialization. These would be five-times bigger, producing 200-250,000 tonnes/year (4,000-5,000 BPSD) of aromatics and 150,000 tonnes of CO. This rapidly expands the availability of bio-aromatics for chemicals and fuels, providing cost-competitive solutions needed by refiners and brand owners looking to make a difference in their carbon footprints.