



Country Report

USA

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Commercial Updates

1. Fulcrum Bioenergy/Sierra Biofuels (10MM GPY)
 - a) MRF operational (2 y)
 - b) Gasification/FT under construction
 - a) MSW feedstock/TRI indirectly heated fluid bed steam reforming gasifier
 - c) Recently pivoted from jet fuel to naphtha
 - i. Off-take with Marathon Oil Co.
 - d) Start-up 2020
2. Red Rock Bio (15MM GPY jet fuel)
 - a) Completed financing (!)
 - b) Plant under construction – TCG steam reforming gasifier
 - a) Forest residues to jet fuel
 - c) Start-up in 2020(?)
3. Aematis/Lanzatech (60MM GPY cellulosic ethanol)
 - a) Ag waste/wood waste
 - b) Syngas fermentation to ethanol (LT) - InEnTec plasma-assisted gasifier
 - c) Construction scheduled to start in 2020 - status?

Thank you

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