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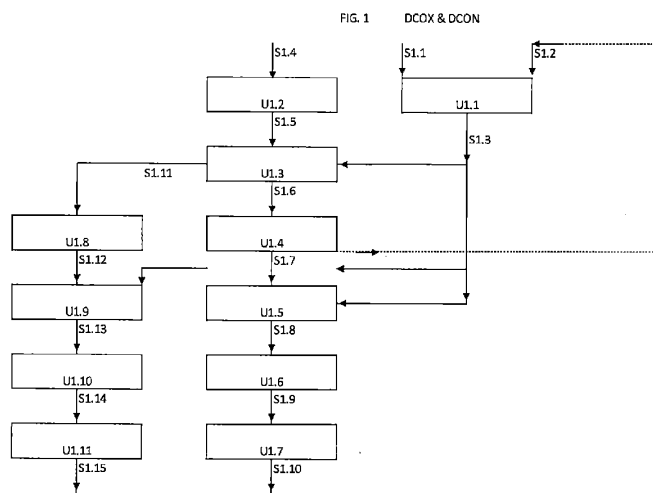
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(54) Title: PRODUCTION OF FUELS FROM HYDROPROCESSED ESTERS AND FATTY ACIDS, LOW CARBON HYDROGEN,
AND CARBON DIOXIDE IN AN INTEGRATED HEFA AND EFUELS PLANT



(57) Abstract: An integrated facility to produce either renewable diesel fuel or sustainable aviation fuel, or both renewable diesel and sustainable aviation fuel from carbon dioxide including carbon dioxide that is a byproduct of reacting Hydroprocessed Esters and Fatty Acids (HEFA) and hydrogen that produces renewable fuels. HEFA is hydroprocessed to produce a liquid fuel product and may produce water, CO and water, or CO₂. Integrated with an eFuels process that produces the hydrogen that is needed in various steps of the integrated process. Renewable or low carbon electricity is used to convert water to hydrogen and oxygen in an electrolyzer. Carbon dioxide is reacted with at least a portion of the hydrogen to produce a stream comprising carbon monoxide with a carbon dioxide conversion per pass of between 50% to 100%, preferably between 60% and 100%, and more preferably between 70% and 100%.

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