CLAIMS:

What is claimed is:

1. A method of processing a biofeedstock, comprising:

hydrotreating the biofeedstock by reaction with hydrogen in the presence of a hydrodeoxygenation catalyst to form at least a hydrotreated effluent stream;

separating a gas-phase portion from at least the cooled hydrotreated effluent stream to form at least a gas-phase stream and a hydrotreated stream;

stripping at least a portion of the hydrotreated stream in an integrated stripper to remove isomerization contaminants and form at least an isomerization feed stream and a first gas stream;

contacting at least a portion of the isomerization feed stream with an isomerization catalyst to form an isomerization effluent stream;

separating at least the isomerization effluent stream to form at least a second gas stream and an isomerization reactor effluent;

contacting at least a portion of the isomerization reactor effluent with the first gas stream in a common volume of the integrated stripper such that the isomerization reactor effluent adsorbs at least hydrocarbons having 4 carbons or more from the first gas stream; and

stripping at least a portion of the isomerization effluent stream in the integrated stripper to form at least a product stream and a third gas stream, wherein the stripping of at least a portion of the hydrotreated stream is performed in a first separate volume of the integrated stripper and the stripping of at least a portion of the isomerization effluent stream is performed in a second separate volume of the integrated stripper, and wherein the product stream comprises renewable diesel and has a minimum flash point of 35°C to 60°C as determined in accordance with ASTM D93.

2. The method of claim 1, further comprising combining at least the second gas stream separated from the isomerization effluent stream with the hydrotreated effluent stream prior to the separating the gas-phase portion such that the separating the gas-phase portion separates at least a combined stream of the second gas stream and the hydrotreated effluent stream.

3. The method of claim 1, further comprising cooling the isomerization effluent stream prior to the separating the isomerization effluent stream.

4. The method of claim 1, further comprising combining the hydrotreated effluent stream with at least a portion of the second gas stream from the separating the isomerization effluent stream prior to the separating the gas-phase portion.

5. The method of claim 1, wherein the isomerization contaminants comprise at least one of carbon monoxide, carbon dioxide, or water.

6. The method of claim 1, wherein the stripping at least a portion of the hydrotreated stream comprises counter current contact with a first stripping medium within the integrated stripper, and wherein the stripping at least a portion of the isomerization effluent stream comprises counter current with a second stripping medium within the integrated stripper.

7. The method of claim 1, wherein a stripping medium for at least one of the hydrotreated stream and/or the isomerization effluent stream comprises heat from one or more stripping reboilers.

8. The method of claim 1, wherein the first and second separate volumes are separated by a dividing wall, wherein the common volume is above the first and second separate volumes, wherein liquid can flow from the common volume to the second separate volume but cannot flow from the common volume to the first separate volume.

9. The method of claim 8, wherein vapor from the common volume is condensed in a condenser and separated to form at least a naphtha product stream and a light ends stream comprising carbons having from 1 carbon to 6 carbons.

10. The method of claim 9, wherein the condenser comprises of a spiral condenser.

11. The method of claim 1, further comprising stripping a rich amine stream with at least portion of the gas-phase stream from the separating the gas-phase portion to enrich the gas-phase stream with hydrogen sulfide, wherein the hydrogen for the hydrotreating is provided in a hydrogen treat gas that comprises at least a portion of the enriched gas-phase stream, wherein the rich amine stream has a molar ratio of hydrogen sulfide to amine of 0.25 or more.

12. The method of claim 11, further comprising contacting the gas-phase stream with a lean amine stream to strip contaminants from the gas-phase stream prior to the stripping the rich amine stream.

13. The method of claim 1, wherein the biofeedstock comprises a vegetable oil.

14. A method for integration of product separation in renewable diesel production, comprising:

stripping a hydrotreated effluent stream comprising hydrotreated biofeedstock to remove isomerization contaminants and form at least an isomerization feed stream and a first gas stream;

contacting at least a portion of the isomerization feed stream with an isomerization catalyst to form an isomerization effluent stream;

contacting the isomerization effluent stream with the first gas stream within a common area of an integrated stripper such that the isomerization effluent adsorbs at least C4+ hydrocarbons from the first gas stream; and

stripping at least a portion of an isomerization effluent stream in the integrated stripper, wherein stripping the at least a portion of the hydrotreated effluent stream is performed in a first separate volume of the integrated stripper and the stripping at least a portion of the isomerization effluent stream is performed in a second separate volume of the integrated stripper and the first and second volumes are separated by a dividing wall to form at least a second gas stream and a product stream, wherein the product stream comprises renewable diesel.

15. The method of claim 14, wherein the isomerization contaminants comprise at least one of carbon monoxide, carbon dioxide, or water.

16. The method of claim 14, wherein the stripping at least a portion of the hydrotreated stream comprising counter currently contacting the hydrotreated stream with a first stripping medium, and wherein the stripping at least a portion of the isomerization effluent stream comprises counter currently contacting the at least a portion of the isomerization effluent stream with a second stripping medium.

17. The method of claim 16, wherein the first stripping medium and the second stripping medium each individually comprise natural gas, steam, an inert gas, or combinations thereof.

18. The method of claim 14, wherein the common volume is above the first and second separate volumes.

19. The method of claim 18, wherein vapor from the common volume is condensed and separated to form at least a naphtha product stream and a light ends stream comprising carbons having from 1 carbon to 6 carbons.

20. The method of claim 14, wherein the hydrotreated biofeedstock comprises hydrotreated vegetable oil.