Table 8. Temporary Pathways for Fuels with Indeterminate CIs

Fuel	Feedstock	Process Energy	CI (gCO$_2$e/MJ)
Ethanol	Corn	Grid electricity, natural gas, and/or renewables	90
	Grain Sorghum	Grid electricity, natural gas, and/or renewables	95
	Any Sugar Feedstock	Bagasse and straw only; no grid electricity	55
	Any Cellulosic Biomass	Grid electricity, natural gas, and/or renewables	50
Biomass-based Diesel	Fats/Oils/Grease Residues	Grid electricity, natural gas, and/or renewables	45
	Any feedstock derived from plant oils, excluding palm oil	Grid electricity, natural gas, and/or renewables	65
	Any other feedstock	Grid electricity, natural gas, and/or renewables	Baseline (2010) CI value for ULSD
Fossil LNG	Petroleum Natural Gas	N/A	95
Fossil L-CNG	Petroleum Natural Gas	N/A	100
Biomethane CNG	Landfill gas	Grid electricity, natural gas, and/or parasitic load	70
	Municipal Wastewater sludge, Food Scraps, Urban Landscaping Waste, or Other Organic Waste	Grid electricity, natural gas, and/or parasitic load	45
Biomethane LNG	Landfill gas	Grid electricity, natural gas, and/or parasitic load	85
	Municipal Wastewater sludge, Food Scraps, Urban LandscapingWaste, or Other Organic Waste	Grid electricity, natural gas, and/or parasitic load	60
Biomethane L-CNG	Landfill gas	Grid electricity, natural gas, and/or parasitic load	90
	Municipal Wastewater sludge, Food Scraps, Urban Landscaping Waste, or Other Organic Waste	Grid electricity, natural gas, and/or parasitic load	65
Biomethane CNG, LNG or L- CNG	Dairy Manure	Grid electricity, natural gas, and/or parasitic load	−150
	Swine Manure	Grid electricity, natural gas, and/or parasitic load	−150

Fuel	Feedstock	Process Energy	CI (gCO$_2$e/MJ)
Hydrogen	Centralized SMR of fossil LNG	Grid electricity, natural gas and/or renewables	185
Alternative Jet Fuel	Fats/Oils/Grease Residues	Grid electricity, natural gas, and/or renewables	50
	Any feedstock derived plant oils (excluding palm oil and palm derivatives, as a sole feedstock or blended with other feedstocks)	Grid electricity, natural gas, and/or renewables	70
	Any other feedstock	Grid electricity, natural gas, and/or renewables	Baseline (2010) CI value for USLD
Renewable Propane	Fats/Oils/Grease Residues	Grid electricity, natural gas, and/or renewables	45
	Any feedstock derived from plant oils (excluding palm oil and palm derivatives, as a sole feedstock or blended with other feedstocks)	Grid electricity, natural gas, and/or renewables	65
	Any other feedstock	Grid electricity, natural gas, and/or renewables	Baseline (2010) CI value for USLD
Renewable Naptha	Fats/Oils/Grease Residues	Grid electricity, natural gas, and/or renewables	45
	Any feedstock derived from plant oils (excluding palm oil and palm derivatives, as a sole feedstock or blended with other feedstocks)	Grid electricity, natural gas, and/or renewables	65
	Any other feedstock	Grid electricity, natural gas, and/or renewables	Baseline (2010) CI value for USLD
Any gasoline substitute feedstock-fuel combination not identified above	Any	Any	Baseline (2010) CI value for CaRFG
Any diesel substitute feedstock-fuel combination not identified above	Any	Any	Baseline (2010) CI value for ULSD