

# CO2 EMISSIONS FROM REFINING DIESEL

Devin Serpa - AfterOil EV

In the following calculation, I will prove how much CO2 will be released from the refining process of one gallon of diesel.

<b>88.5 %</b>	Refining efficiency of one gallon of Diesel (average).	1
<b>0.115 gal</b>	Units of energy burned per unit energy refined	
<b>138095 Btu/gal</b>	Crude Oil Properties	2
<b>18394 Btu/lbs</b>	* <b>7.08 lbs/gal</b> = <b>130211</b> BTU/gal Diesel	3
<b>0.115 gal</b>	* <b>130211 BTU/gal</b> = <b>14974</b> BTU Oil to produce 1 gal Diesel	
<b>14974 Btu/gal</b>	/ <b>138095 BTU/gal</b> = <b>.1084</b> gal Oil to produce 1 gal Diesel	
	*	
	<b>20.0559</b> lbs CO2/gal of oil burned	4
	=	
	<b>2.1741</b> lbs CO2 to produce 1 gal Diesel	

**That's 2.1741 lbs CO2 emitted from refining one gallon of diesel.**

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<sup>1</sup> [www.transportation.anl.gov/modeling\\_simulation/GREET/pdfs/energy\\_eff\\_petroleum\\_refineries-03-08.pdf](http://www.transportation.anl.gov/modeling_simulation/GREET/pdfs/energy_eff_petroleum_refineries-03-08.pdf)

<sup>2</sup> [www.eia.doe.gov/kids/energyfacts/science/energy\\_calculator.html](http://www.eia.doe.gov/kids/energyfacts/science/energy_calculator.html)

<sup>3</sup> [www.eere.energy.gov/afdc/pdfs/fueltable.pdf](http://www.eere.energy.gov/afdc/pdfs/fueltable.pdf)

<sup>4</sup> [www.afteroilEV.com/Pub/CO2\\_Emissions\\_from\\_Fuel\\_Combustion.pdf](http://www.afteroilEV.com/Pub/CO2_Emissions_from_Fuel_Combustion.pdf)