

Understanding Carbon Intensity, Renewable Propane, and Why They Matter

Bryan Cordill
Director of Residential Business
Development, PERC



What is Renewable Propane

Definition:

Renewable propane is energy created from renewable sources...is methane free...with carbon intensity as low as zero.

Aspirational Statement

By 2030, propane, renewable propane and innovative blends will be the most widely-accessible, affordable, zero-carbon solution integral to American energy policy with benefits to climate, health, and equity.

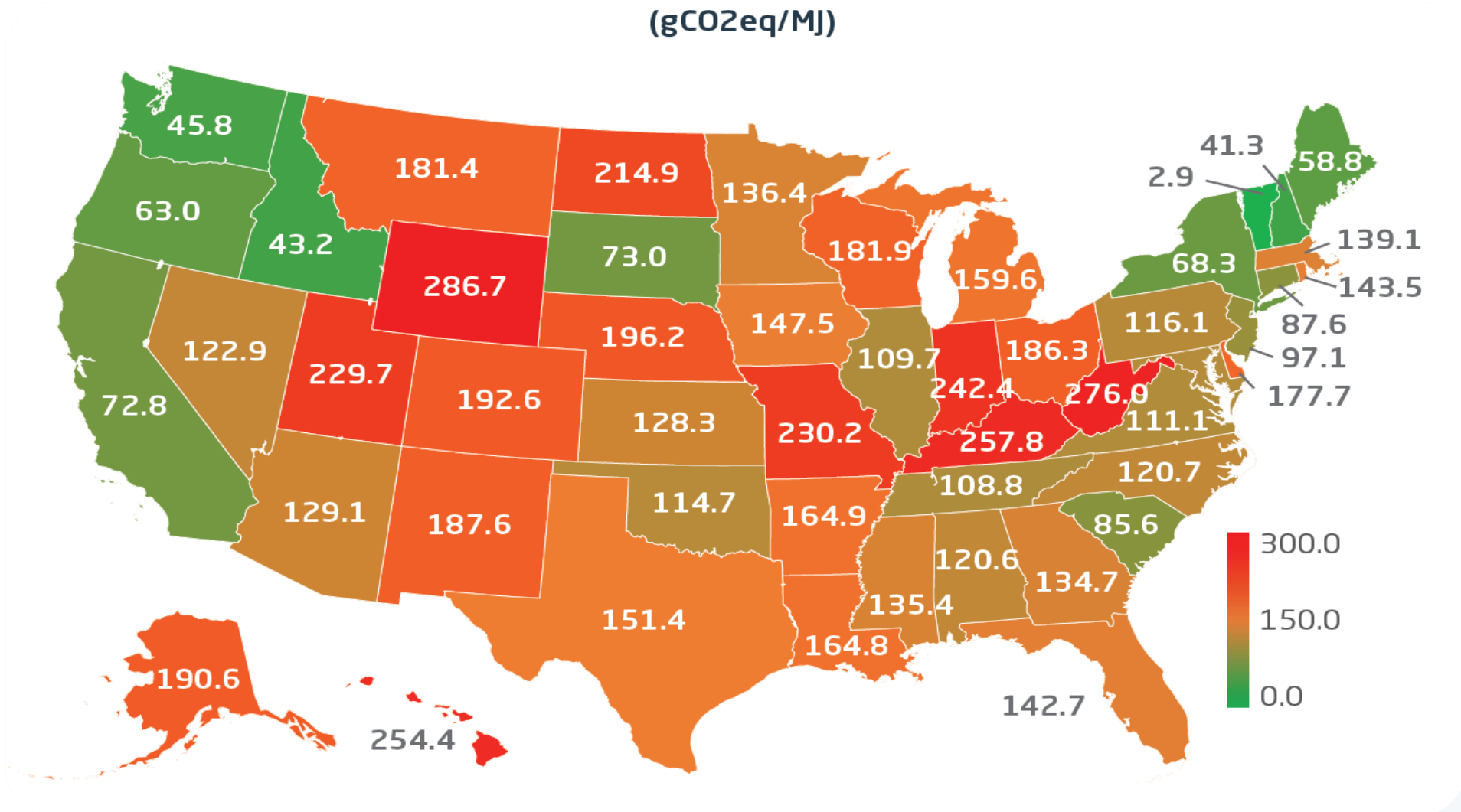
What is carbon intensity?

The total carbon emissions (or total carbon footprint) embodied in an energy carrier from the source to the point of use.

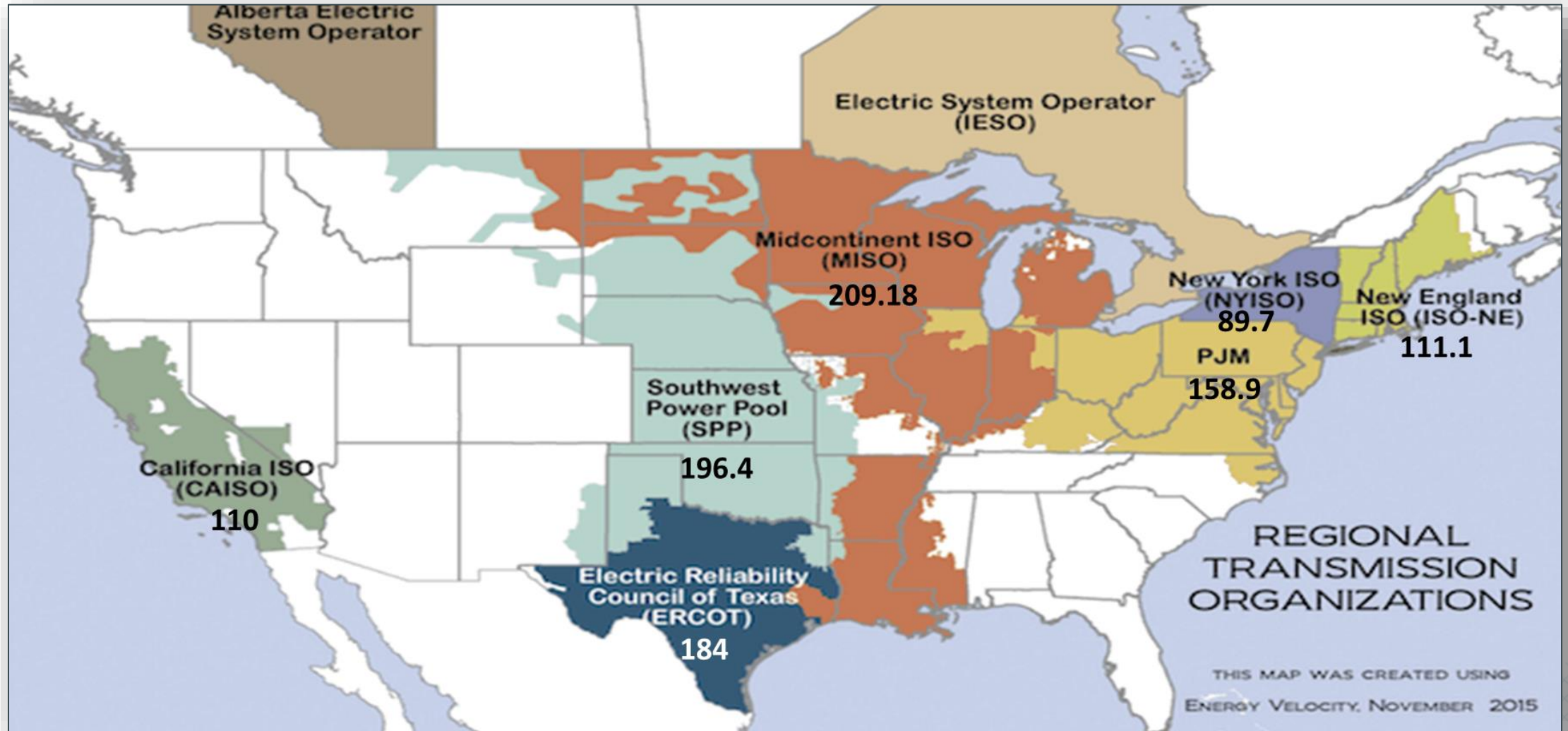
Expressed in terms of grams of CO₂ equivalent per MJ of biofuel/bioliquid/biomass = **gCO₂eq/MJ**

Electric Grid Carbon Intensity

(gCO₂eq/MJ)



Carbon Intensity of Regional Transmission Organizations (RTO)



Renewable Propane Blends

- Renewable Propane (rP)
- Renewable Dimethyl Ether (rDME)
- rP + **x%** rDME

Renewable Fuels:

Feedstock	Process	Result	Players	CI
UCO	Hydrotreat	rD, SAF, rP	REG	11
Crops		rP	World Clean Energy	0
MSW/ Ag Residue		rP	GTI Kool	0
Waste Plastics		rP	MIT	0
Hydrogen				
Syngas		Ethanol, methanol		



Camelina husks



Camelina grain



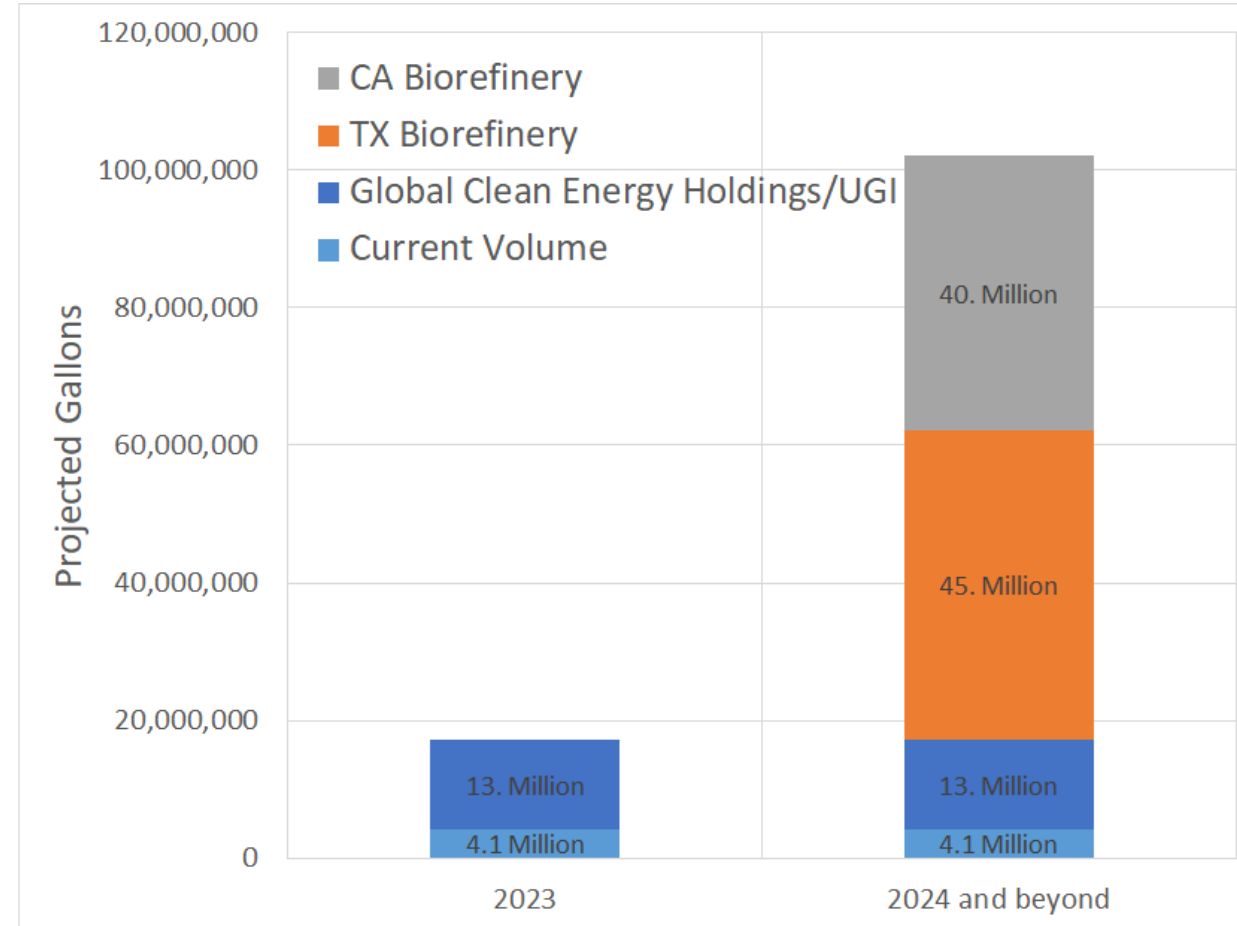
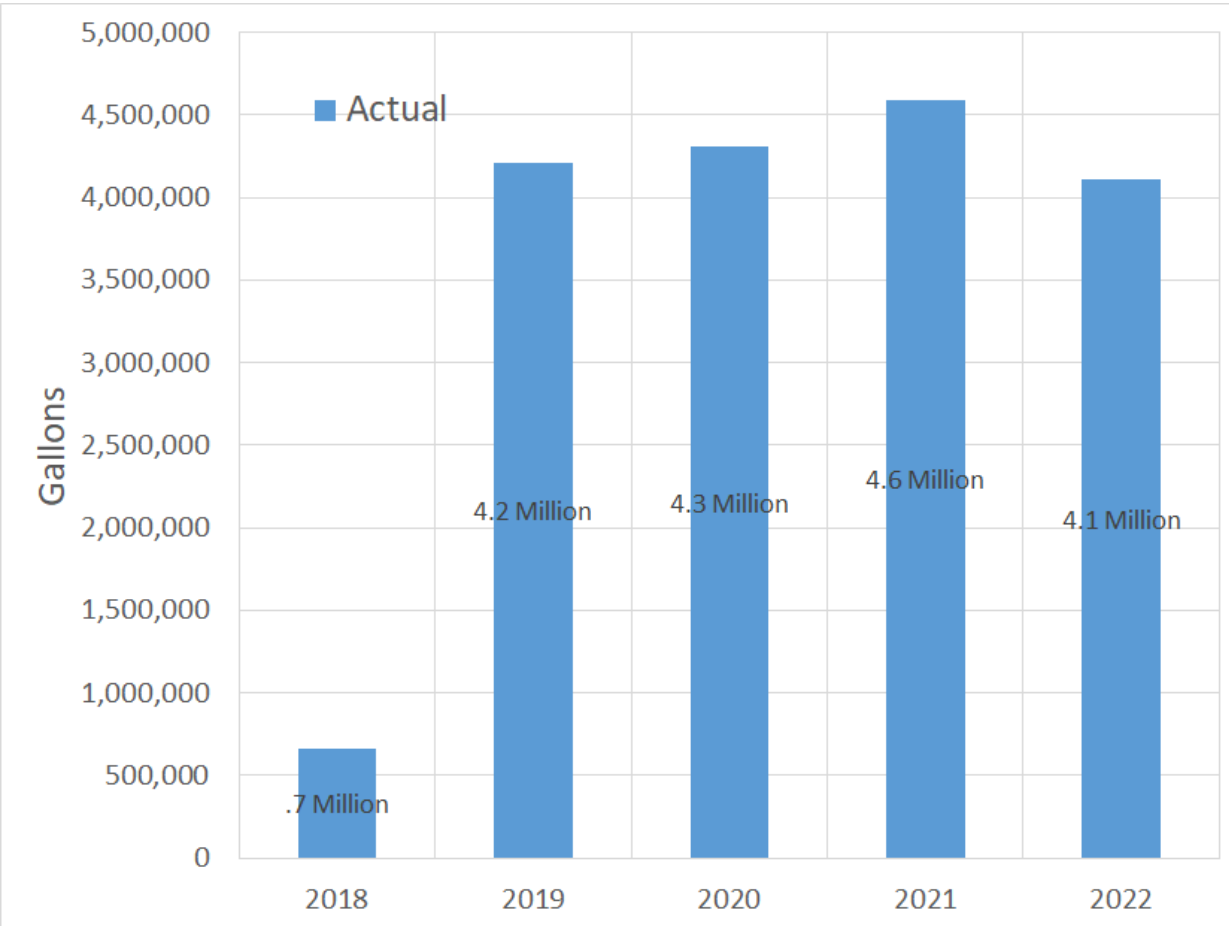
Camelina oil



Camelina meal



Current Capacity and Near-Term Projections of Renewable Propane



Actual volumes obtained from EPA Renewable Fuel Standard (RFS), Renewable Identification Number (RIN) Data