



## ABC RNG Purity Recommendation – Pipeline

The American Biogas Council (ABC) has identified a significant barrier to the growth of RNG generation: the lack of a consistent RNG purity specification. For RNG which is produced for use in CNG vehicles, the ABC is contacting CNG engine suppliers to obtain a recommendation. For RNG to natural gas pipeline facilities, in general the ABC advocates the use of the same specifications as conventional natural gas. Since these vary considerably within the continental US, the ABC through its RNG Committee and members has developed the gas purity specifications below for RNG projects injecting into gas distribution systems:

Physical Property	Units	Lower Limit	Upper Limit
Heating Value	BTU/ft <sup>3</sup>	960	1100
Carbon Dioxide	mol %		2
Oxygen	mol %		0.4
Total Inerts	mol %		5
Hydrogen Sulfide	gr./100 ft <sup>3</sup>		1/4
Total Sulfur	gr./100 ft <sup>3</sup>		1
Water	lbs/mmSft <sup>3</sup>		7
Siloxanes	ppm(v)		1
Hydrocarbon Dew Point	°F		-40
Temperature	°F	50	120
Dust, Particulate			commercially free*
Biologicals			commercially free*
Heavy Metals			commercially free*

\*Commercially free is defined as equal or less than the levels present in conventional natural gas

## ABC RNG Purity Recommendation – CNG Vehicles

Since CNG specifications also vary considerably within the continental US, the ABC has developed the following gas purity specifications for RNG to CNG vehicle projects where the gas does not have to enter a conventional natural gas pipeline to be used in vehicles:

Physical Property	Units	Lower Limit	Upper Limit
Heating Value	BTU/ft <sup>3</sup>	940	1100
Carbon Dioxide + Nitrogen	mol %		4
Oxygen	mol %		1
Hydrogen	ppm(v)		300
Total Sulfur	wt%		0.001
Hydrogen Sulfide	ppm(v)		6
Siloxanes	ppm(v)		3
Liquids			commercially free*
Dust, Particulate			commercially free*
Chlorine Additives			commercially free*
Heavy Metals			commercially free*

\*Commercially free is defined as equal or less than the levels present in conventional natural gas

Find these specifications online at: <https://americanbiogascouncil.org/resources/rng-purity-recommendation/>