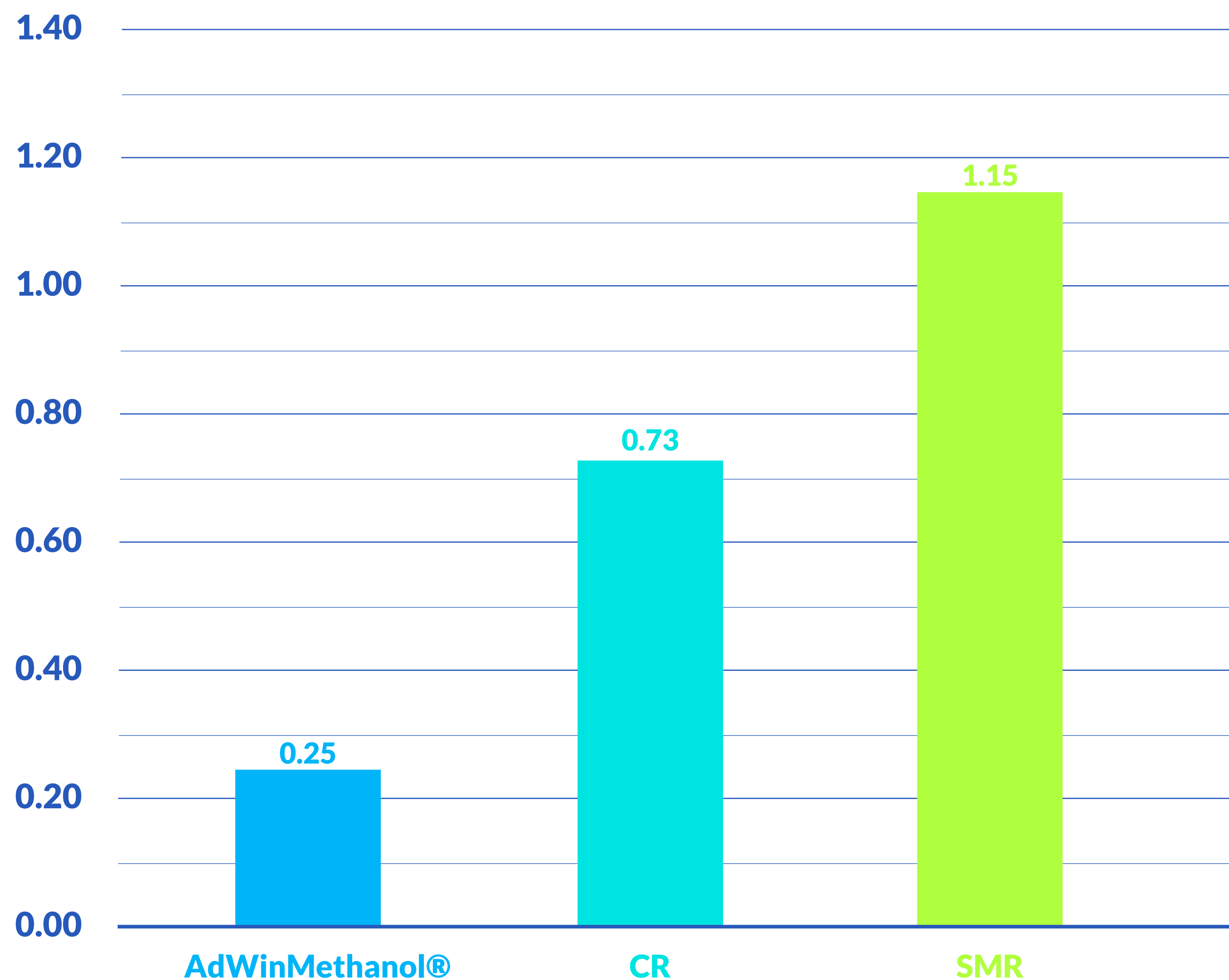


Metric Tons of Methanol Production / Metric Tons of CO₂ emissions



tkIS AdWinMethanol® Technology

ATR

Auto-thermal reformers consist of a single refractory lined catalytic partial oxidation ("POX") reactor.

Best-in-class Competitors

CR

Combined reformers consist of a fired steam reformer (SMR) followed by or in parallel with an auto-thermal reformer (ATR)

SMR

Steam methane reformers consist of a steam-fired reformer only

Emissions Reduction / MT Methanol

Pollutant	Emissions Reduction / MT Methanol	
	AdWinMethanol® vs. SMR	AdWinMethanol® vs. CR
Carbon Dioxide Equivalent	~ 78%	~ 66%

Source: State of Louisiana, Department of Environmental Quality, Environmental Services. Prevention of Significant Deterioration (PSD) Permit, PSD-LA-781 (M-1) for Big Lake Fuels Methanol Plant, Lake Charles, Calcasieu Parish, Louisiana.

