

RFS2 Final Rule Lifecycle GHG Analysis “By the Numbers”

Modern Corn Ethanol*:

- Lifecycle GHG emissions of 74 g of CO₂e/megajoule (compared to 93 g/MJ for gasoline)
- **21%** GHG reduction even with international ILUC emissions
- **52%** GHG reduction without international ILUC change emissions
- Final rule international ILUC emissions reduced by half (60 g/MJ vs. 30 g/MJ) compared to proposed rule
- Under EPA’s analysis, new (non-grandfathered) corn ethanol meets 20% GHG reduction requirement in EISA for “conventional biofuels”

If EPA had maintained the 100-year timeframe and 2% discount rate for GHG accounting that it used for the proposed rule:

- Modern corn ethanol reduces GHG emissions **33%** with international ILUC
- GHG emissions reduction without international ILUC is **56%**

**industry representative mix of 63% dried DG/37% wet DG with fractionation*

**EPA used 30 year timeframe and 0% discount for final rule*

Cellulosic Ethanol:

- Ethanol from switchgrass reduces GHG emissions by **110%** via the biochemical conversion process and **72%** via the thermo-chemical process
- Ethanol from corn stover reduces GHG emissions **130%** (biochemical) and **93%** (thermo-chemical)
- Under EPA’s analysis, ethanol from these feedstocks meets the 60% GHG reduction requirement for “cellulosic biofuels” in EISA

Brazilian Sugarcane Ethanol:

- Ethanol from sugarcane reduces GHG emissions by **61%** relative to gasoline
- International ILUC emissions for sugarcane ethanol were reduced 93% from 53 g/MJ (proposed rule) to 4 g/MJ (final rule)
- Under EPA’s analysis, sugarcane ethanol meets the 50% GHG reduction requirement for “advanced biofuels”