

ROADMAP FOR THE DECARBONIZATION OF THE ETHANOL INDUSTRY



A US-Based Consulting Firm

Although corn-based ethanol was already cutting greenhouse gas emissions in half compared directly to gasoline, ethanol producers were going further, pursuing ambitious future decarbonization goals.



CHALLENGE

The Client engaged PreScouter in this Research Support Service Project to create a detailed assessment of the pathways by which corn ethanol producers could achieve net-zero carbon intensity by 2050. Possible technologies and practices that could be employed in such pathways included, but were not limited to, the use of low-carbon-intensity inputs and sustainable management practices by corn growers along with the use of renewable process energy and carbon capture and storage by ethanol producers.



APPROACH

The PreScouter team reviewed the literature available regarding ethanol life cycle emissions, as well as the technologies and pathways to reduce GHG emissions in this industry. PreScouter reviewed not only GHG emission values, but also the associated costs and maturity of the different strategies and equipment. The team also engaged with a Subject Matter Expert on carbon, energy, and mass flow calculations for insights to complete their study.



OUTCOME

PreScouter presented the Client with a roadmap showing viable pathways to reduced GHG emissions in the corn-based ethanol industry, highlighting the potential emission reductions as well as associated costs and timeframes for technology implementation.

