

Project : Second Generation Biofuels
Sherbrooke, (Québec)

Client : Enerkem

Project Description :

There are currently over a dozen organizations and partnerships throughout the world working aggressively towards becoming the first to achieve the production of second-generation ethanol at the industrial scale. Enerkem is a Canadian company working at achieving this goal. It proposes to combine a thermo-chemical gasification process with a series of catalytic synthesis steps for the production of cellulosic ethanol.

Enerkem's developments so far are the result of their in-house knowledge and expertise. Their technology has already been proven at the pilot scale and Enerkem is currently trying to achieve the same at the demonstration scale, which requires them to reach an order of magnitude increase in their production rates.

Ultragen was mandated to take this exercise even further by evaluating the feasibility of achieving yet another milestone, namely the adaptation of the Enerkem technology for its successful implementation at the industrial scale. Ultragen has concluded that the proposed synthesis route for cellulosic-ethanol is technically sound and ready for the most part for commercialization. Ultragen is currently assisting in developments on some key outstanding items, with on-going efforts planned throughout 2009-2010.

Biofuel

Year of realization : 2010-2011
Project Value : 85 M\$

Services offered by Ultragen :

- Conducting an extensive literature review
- Selecting optimal property models for use with simulation tools
- Proposing a different chemical intermediate for process simplification
- Finalizing the process sequence and flowsheeting
- Identifying key outstanding issues and development areas
- Feasibility Study

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