



## OPTIMIZATION BITUMEN – BASED UPGRADING AND REFINING SCHEMES

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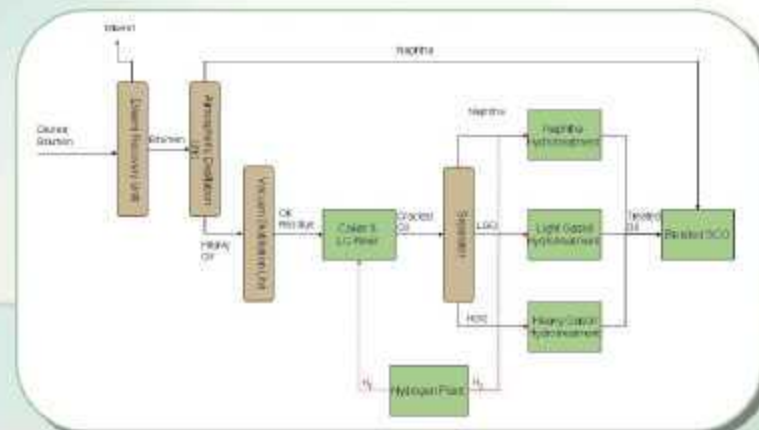
### Project Objectives

- Model and simulate the whole refining scheme with Canadian bitumen as feedstock under different process configurations, operation conditions and product structures.
- Optimize the economic benefit, product quality and energy consumption under different configurational and operational scenarios.
- Propose optimal refining schemes and process conditions/options according to different existing refinery configurations and objectives.
- Provide guidelines and quantitative information for upgrading and refining process design and retrofitting.
- Identify the critical steps in upgrading process and provide debottlenecking solution recommendations.

### Benefits

Exploitation of the results generated from the simulations would lead to significant improvement in process performance and operations, and in reducing the capital cost for building new upgraders and refineries. The simulations results will also provide valuable information for increasing the bitumen marketability, reducing GHG emissions and other related environmental impacts from the bitumen upgrading and refining industry.

### Bitumen Upgrading Scheme



### Hysys Simulator

