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## Partial upgrading of bitumen oil to transportable fuel

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Canada rank as the fourth-largest oil producer and exporter in the world. Yet it seems to have a major difficulty in satisfying the surging energy demand within the country, especially after the pandemic. This is because more than 50% of Canada's oil production is in the form of heavy "bitumen". Bitumen is a highly viscous fluid; thus, its transportation via pipelines is a major challenge. Since the oil demand is increasing with time, the traditional production and transportation methods stand inefficient to cover this substantial energy gap. Therefore, the partial upgrading of bitumen is a crucial solution. Partial upgrading is a technology that brings bitumen to a state resembling a medium-heavy crude that can be easily transported at a lower cost while generating much lower GHG emissions. This approach not only will be more economically viable, but will also generate substantial gains in employment, labour income, exports, and governmental revenue.