

Project Charter

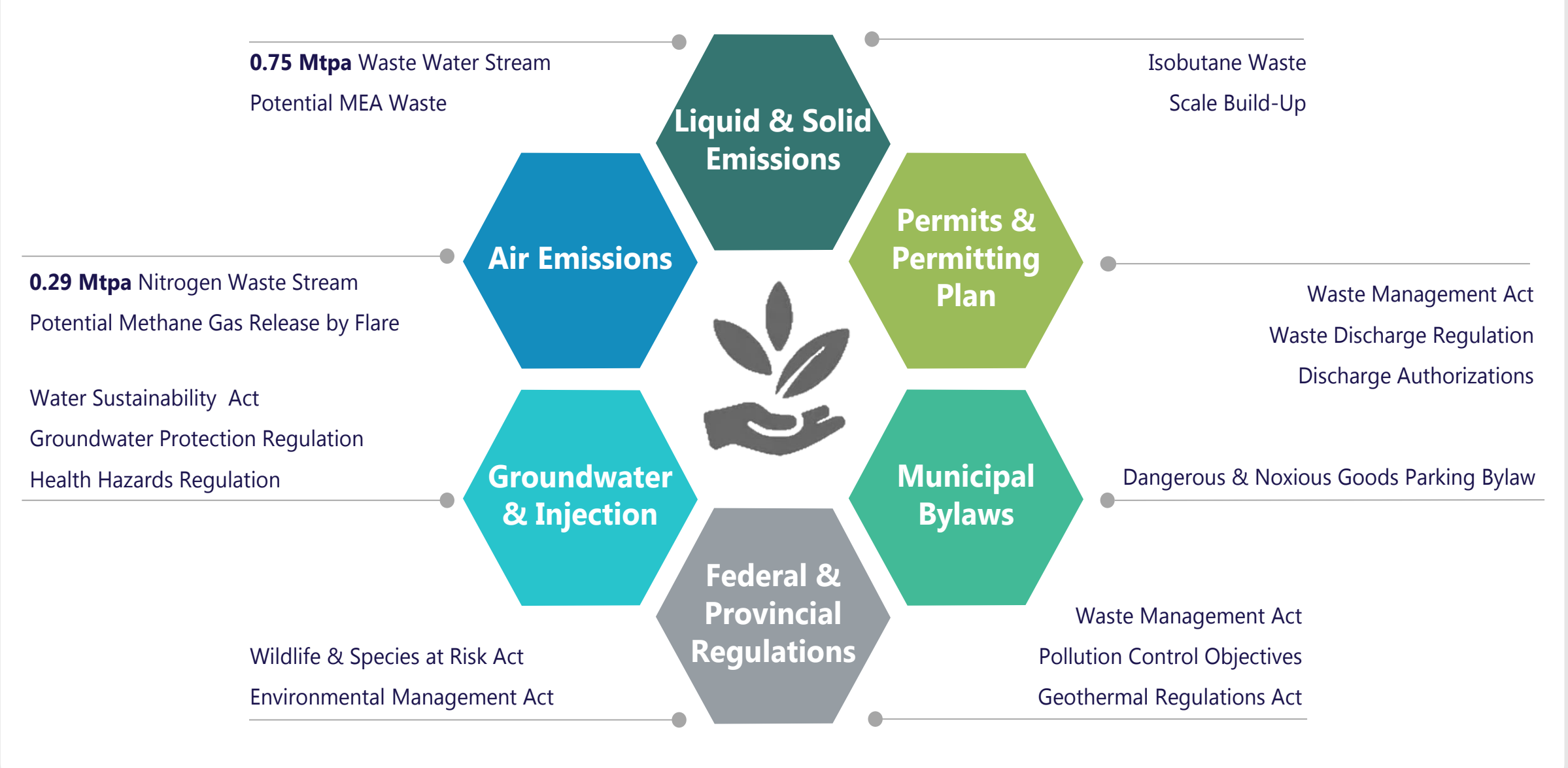
The goal of this project is to design a novel Carbon Capture & Storage (CCS) plant which injects CO₂ emissions released from Enbridge's Fort Nelson Gas Processing Plant into local saline aquifers. The Fort Nelson Gas Plant is the largest sour gas processing plant in North America and is located 21 km South of Fort Nelson. The proposed project integrates existing processes such as CO₂ conditioning, geothermal energy & methane extraction, oxyfuel combustion and CO₂ compression, liquefaction and infusion.

- Reduce Global CO₂ Emissions**
2016 Paris Climate Agreement
- Wide Range of Applicability
- Cost Efficient**
Cash Flow Positive
- Permanent CO₂ Storage
- 100% CO₂ Sequestration**
Fort Nelson Gas Plant

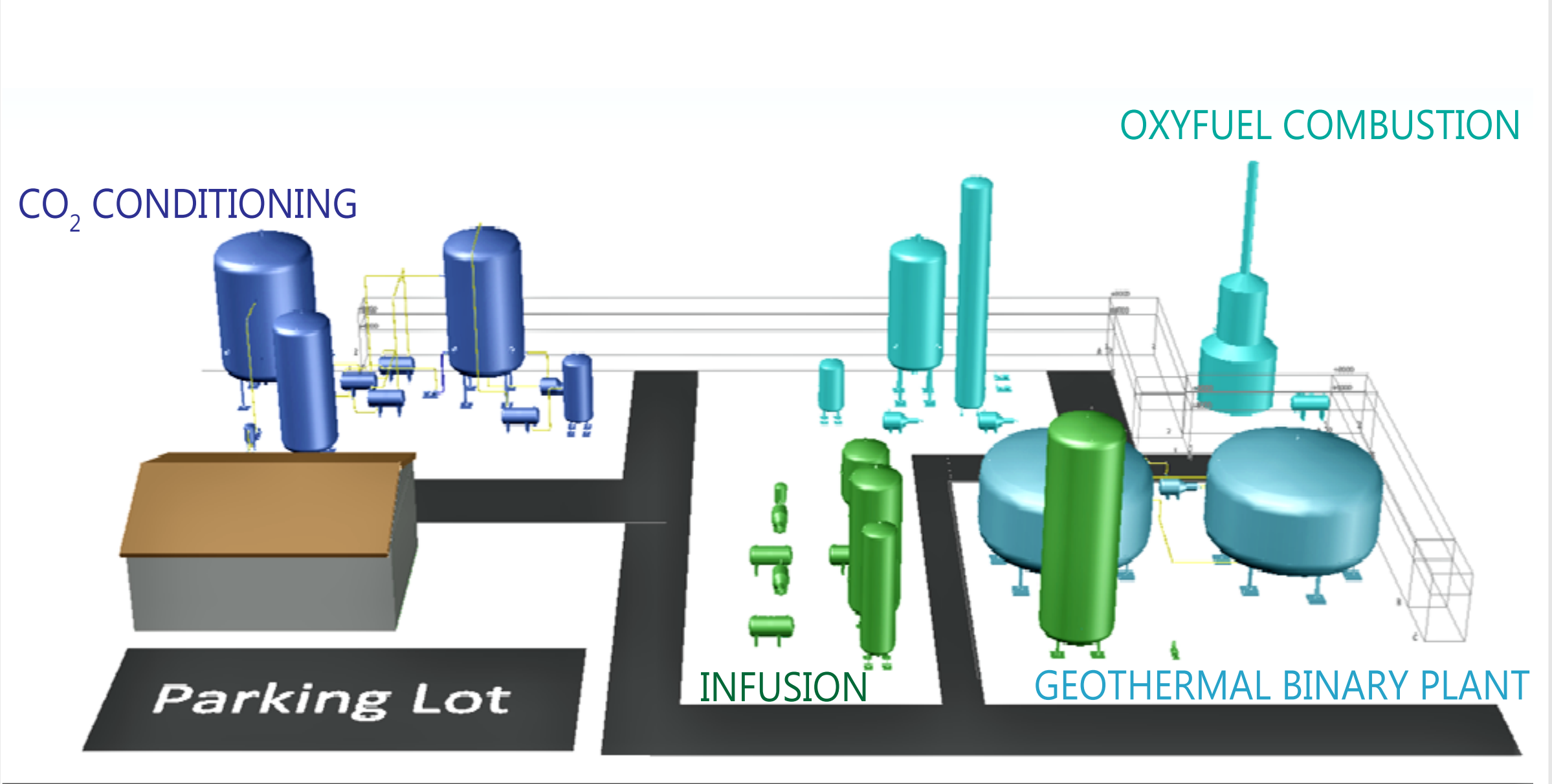
Based on the International Energy Agency (IEA) estimates, 2500 operating CCS facilities with a capacity of 1.5 million tonnes of CO₂ per year (Mtpa) will be required by 2050 to meet the goals set in the 2016 Paris Climate agreement. This project aims to sequester 2.46 Mtpa, making it the largest project of its kind in Canada.

Environmental Assessment

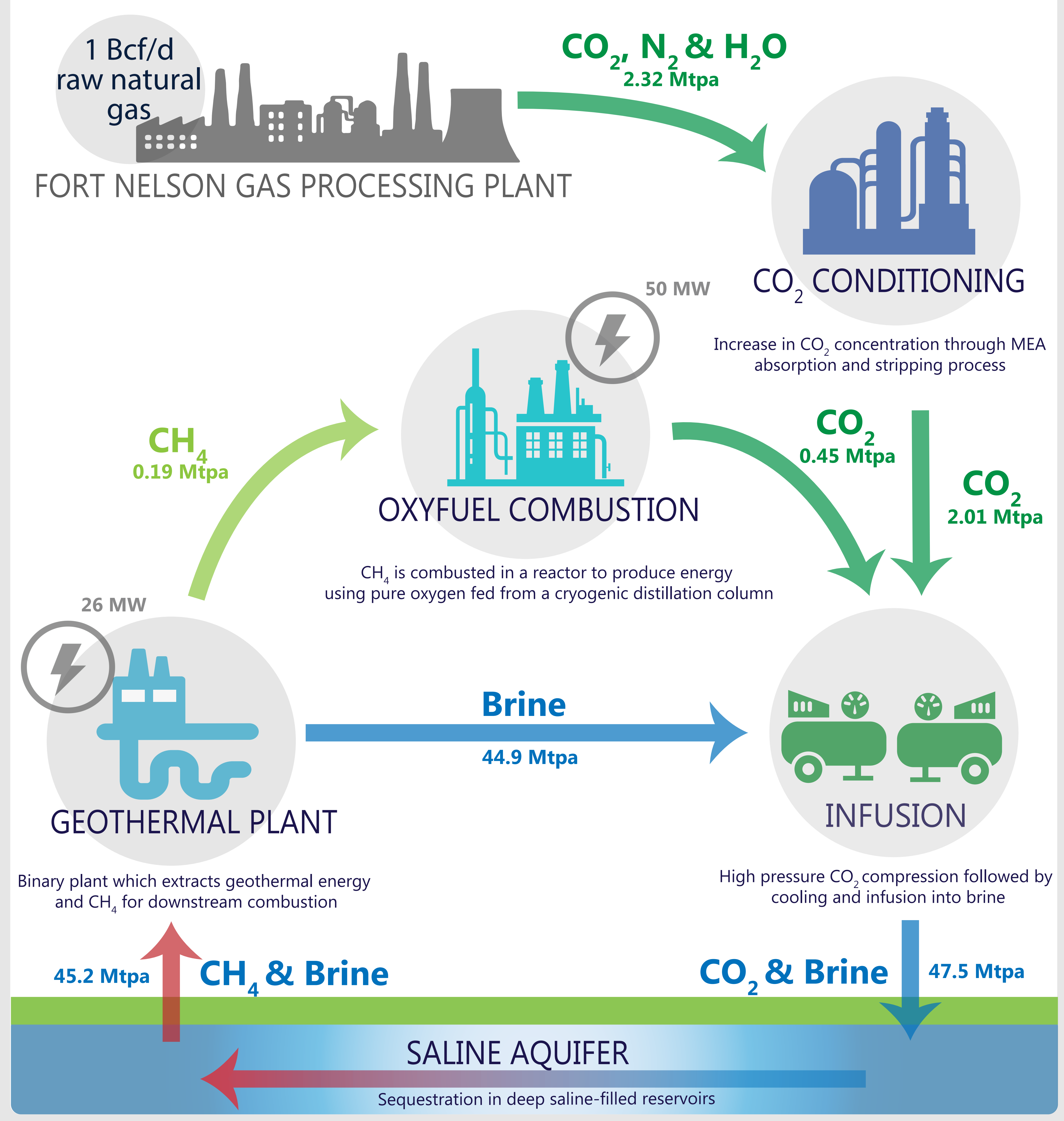
The project's aim to reduce CO₂ emissions from point sources brings positive environmental impacts to the surrounding community. Waste streams are minimal and safe disposal of by-products is considered.



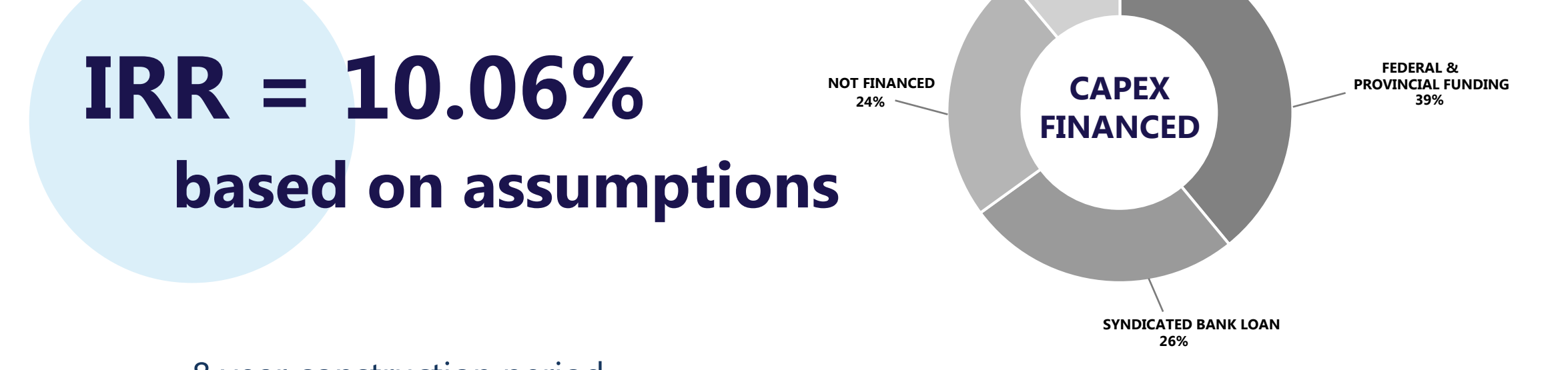
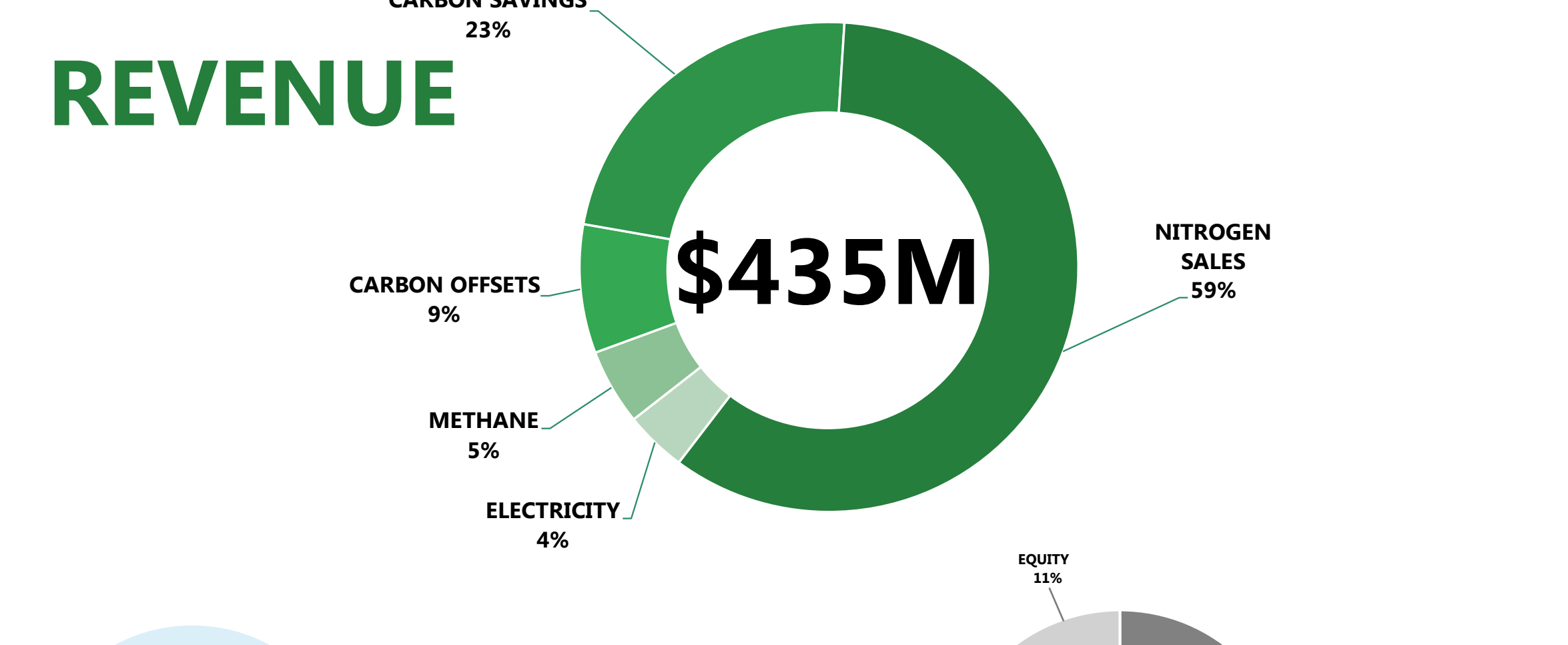
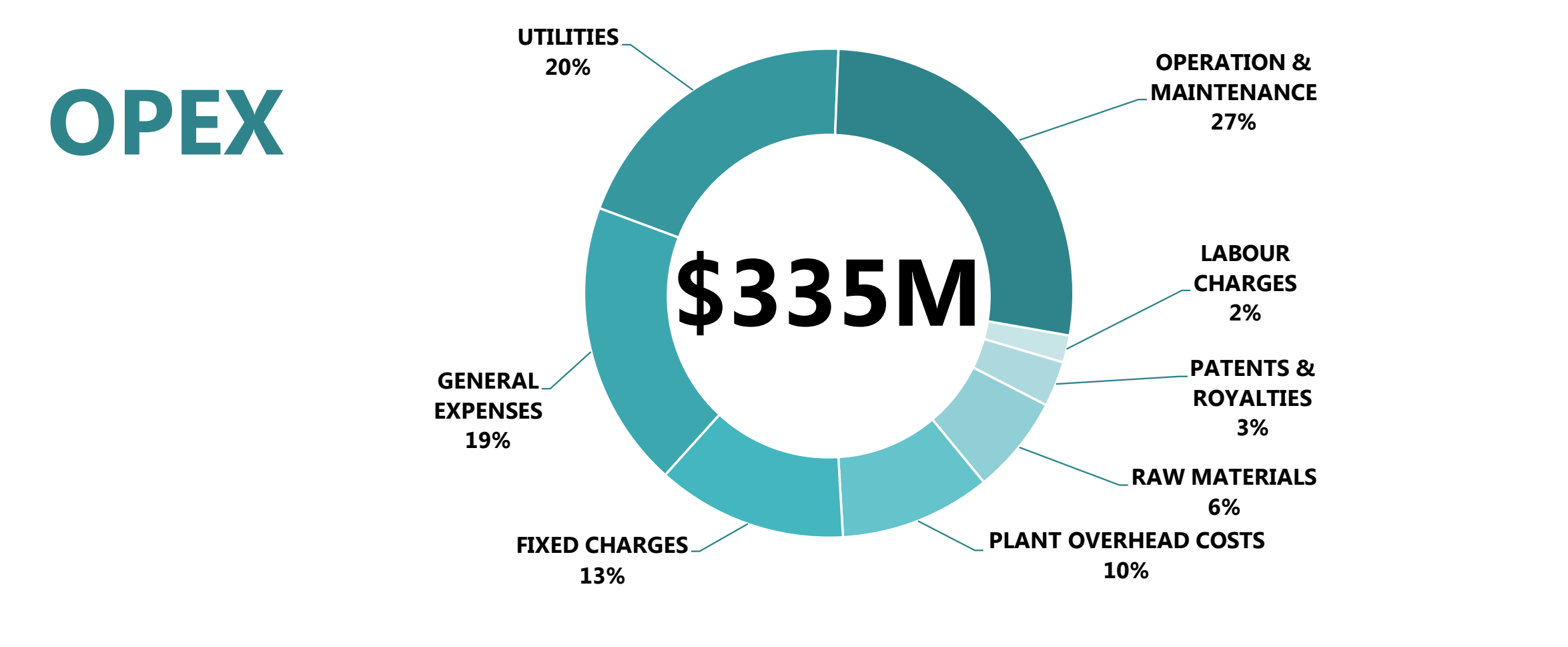
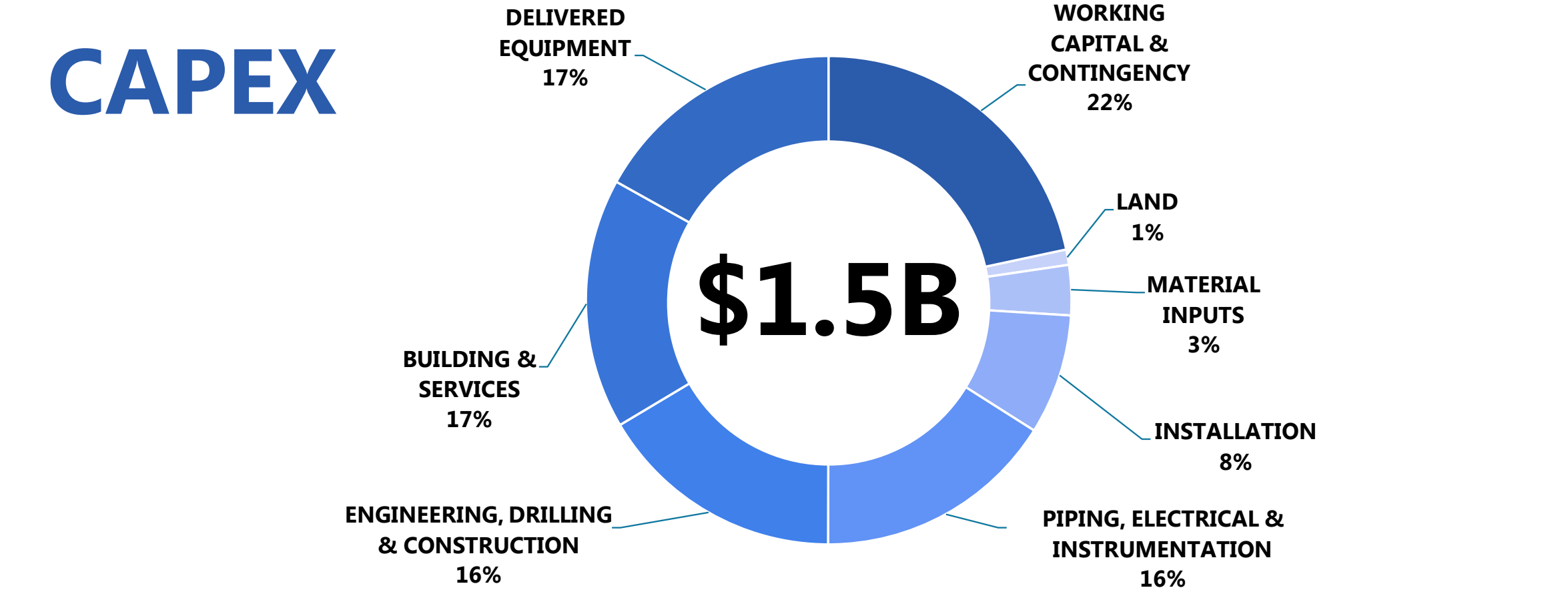
Plant Layout



Process Overview

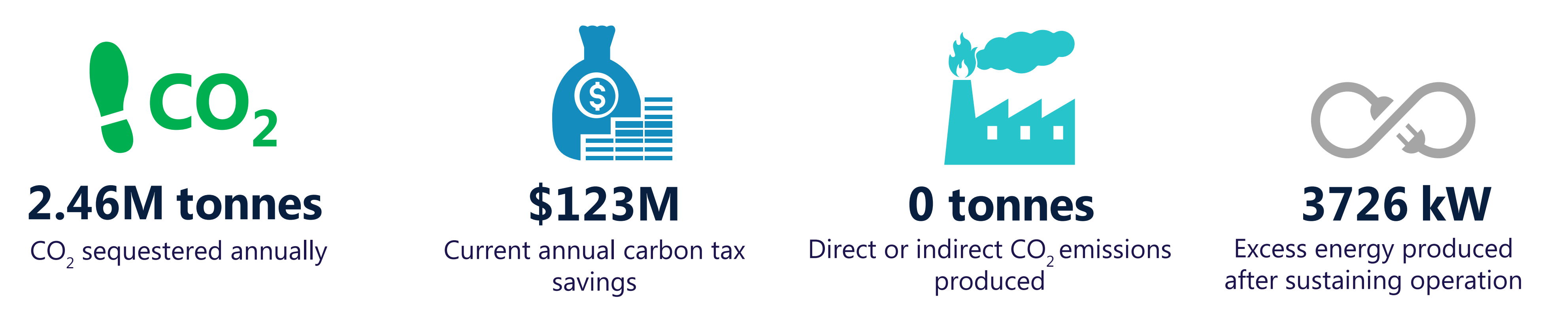


Economic Analysis



- 1. 8 year construction period, 25 year project lifespan, 10% MARR
- 2. Federal & Provincial Funding comparable to Shell Quest Project
- 3. 10 year loan schedule, 5% interest rate
- 4. 11% CAPEX financed through equity (issuance of common shares)
- 5. CH₄ Sales: 0.28 \$/kg, N₂ Sales: 0.12 \$/kg
- 6. Carbon Savings: 50 \$/tonne CO₂, Carbon Offset: 15 \$/tonne CO₂

Project Impact



Acknowledgements

