Made On The North Slope,
For The North Slope

ALYESCHEM

Vision

The North Slope is a world-class energy basin and can continue to be for generations to come. Its future hinges on lowering operating costs, increasing the resource base, monetizing gas, and adapting to the clean fuel transition. Value-added chemistry is the key to all of these challenges.

Plan

Alyeschem is developing a small chemical plant in Prudhoe Bay to make methanol and hydrogen from natural gas, CO_2, and water. The hydrogen will be used to treat local fuel to make ULSD. This will eliminate the cost, risk, and emissions from transporting the two highest-volume imports to the Slope. Alyeschem will improve the overall operational integrity and economic efficiency of North Slope.

Methanol is the simplest chemical made from natural gas, yet we imported it thousands of miles, daily, for over 40 years.

Plant Site

- Alyeschem shares a 15-acre pad south of FS3 with Harvest LNG.
- Pipeline corridor connects to Prudhoe bay Field Fuel Gas System.
- The only reformer tied to over 7 Bcf/d of “stranded” gas
- This lease can be expanded to accommodate growth
- We believe this site is positioned to become a hub for innovation on the North Slope.

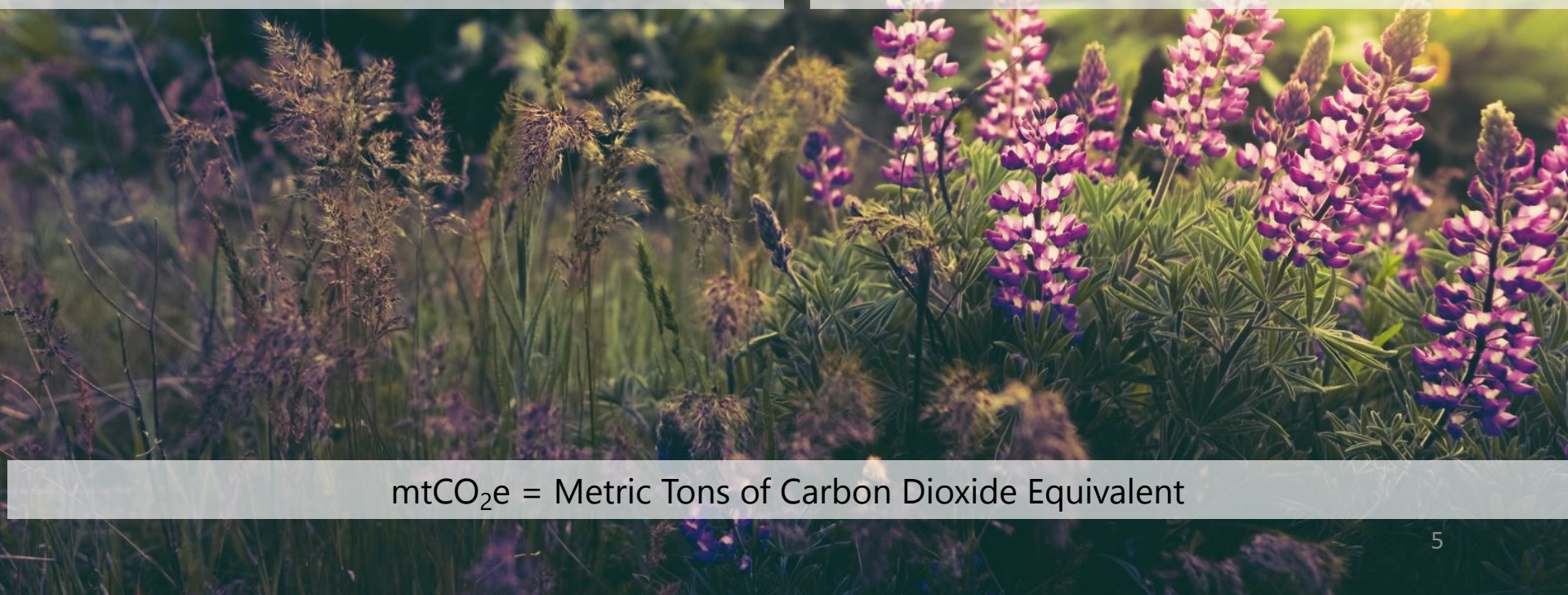
HSE Impact

Pollution

- 93% reduction in CO_2e emissions, or 45,000 tons per year
  - Consumes CO_2
  - More efficient
  - Potential to be carbon-negative
- Eliminates transportation pollution

Safety

- Eliminating the long supply chain will also reduce:
  - Wear & congestion on the Haul Road
  - Spills
  - Accidents
  - Human injury/death



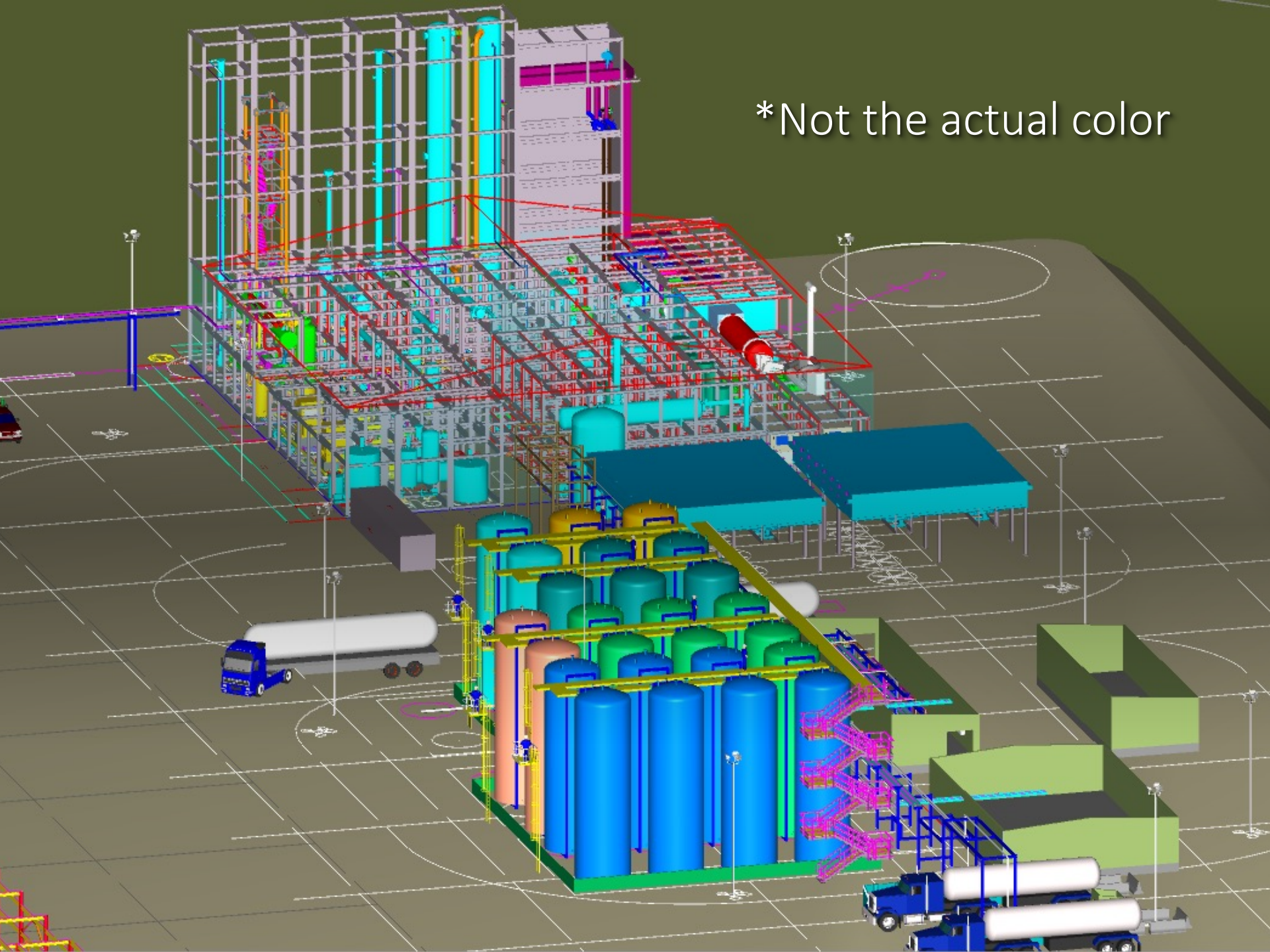
$mtCO_2e$ = Metric Tons of Carbon Dioxide Equivalent

Economic Impact

- 150 in-state construction jobs
- 10-20 direct operations jobs
- Catalyst for job preservation
  - Strengthening supply chains
  - Lowering costs
- Catalyst for growth
  - Relieving pressure on Dalton Highway critical for Willow & Pikka
  - New possibilities for heavy oil and natural gas
- Catalyst for energy transition
  - Alternative fuels
  - Potential for “blue” hydrogen carriers

Project Status

- Plant location and pipeline ROW acquired
- Gas supply contract executed
- Sales contracts in final form
- Major permits acquired
- Major equity partners signed: McKinley & BP Energy
- 30% / Class III engineering complete
- Pending FID
- Onsite construction and commissioning 2025


*Not the actual color

Bonus Slide: Methanol Engines

- Dual-fuel diesel/methanol engines are becoming common in shipbuilding
- Diesel-like performance on 97% MeOH
- Based on standard components
- Super clean
  - Eliminate PM, CO, & SO_X
  - NO_X & CO_2 reduced
- Methanol fuel is:
  - Moved and stored like diesel
  - Lower cost
  - Low impact if spilled
  - Won't gel in the cold