

# Suncor & ATCO World-Scale Clean Hydrogen Facility

IPPSA 28<sup>th</sup> Annual Conference

November 13- 15<sup>th</sup>, 2022



# SUNCOR & ATCO PARTNERSHIP

---



- 5<sup>th</sup> largest energy company in North America
- Oil sands development, production and upgrading
- Offshore Oil and gas
- Petroleum refining
- Retail Distribution
- One of the top 5 power producers in Alberta
- Globally diversified company offering essential services
- Structure and Logistics
- Electricity
- Pipelines and liquids
- Retail Energy
- Shipping Ports

# SUNCOR & ATCO PROJECT OVERVIEW

---

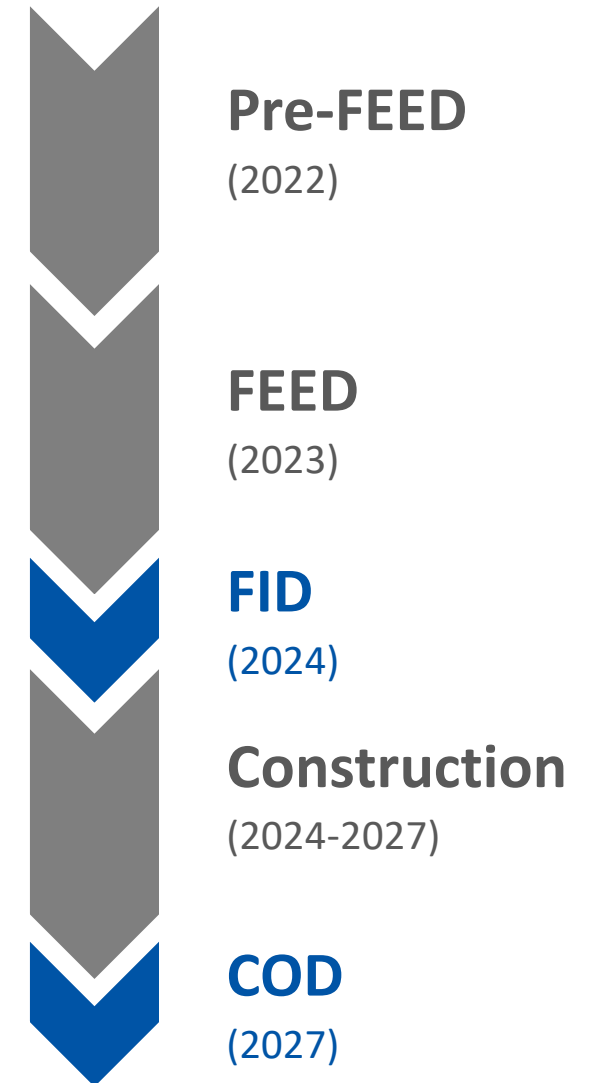
# SUNCOR & ATCO PROJECT OVERVIEW

## Project Highlights

World-class, clean energy development by two established, Alberta-based companies:

- **~330 MMSCFD H<sub>2</sub> production** – enables significant economies of scale
- **~95% Carbon capture** – enables H<sub>2</sub> with very low carbon intensity in the area
- **Incorporation of Salt Caverns** – enables H<sub>2</sub> storage and reliability of supply
- **Optionality for future expansion** – creates a large centralized clean H<sub>2</sub> hub
- **Multi billion** – Capital Expenditures
- **Create Jobs** – over a thousand full time skilled construction jobs and hundreds of full time jobs to support the ongoing operation

## Key Milestones



# SUNCOR & ATCO PROJECT OVERVIEW

## Power Plant Overview

- The project would include two H<sub>2</sub> fired power plants:
  - **Suncor Edmonton Refinery**
  - **Hydrogen Production Site**
- H<sub>2</sub> fired gas turbines for steam and power generation (up to 100% hydrogen fuel) – enables H<sub>2</sub> with low life cycle carbon intensity.
- The project would showcase:
  - transitioning to low carbon power generation alternatives across multiple industrial applications,
  - contributing to greater industrial emissions reductions,
  - improving grid stabilization when using renewables, and
  - decarbonizing electricity.

# POTENTIAL CHALLENGES AND OPPORTUNITIES

---

- **Challenges:**
  - Funding and Regulatory Uncertainty
- **Opportunities:**
  - Advancement in H<sub>2</sub> Technology Development
  - Decarbonizing the electricity grid
  - Ability to provide stability with renewables generation

