Heidelberg Materials

Edmonton CCUS Project

Fall, 2023 | CCUS Update


We are taking the CONCRETE lead.
And are making five concrete promises.

1. We focus on what we do best: heavy building materials.

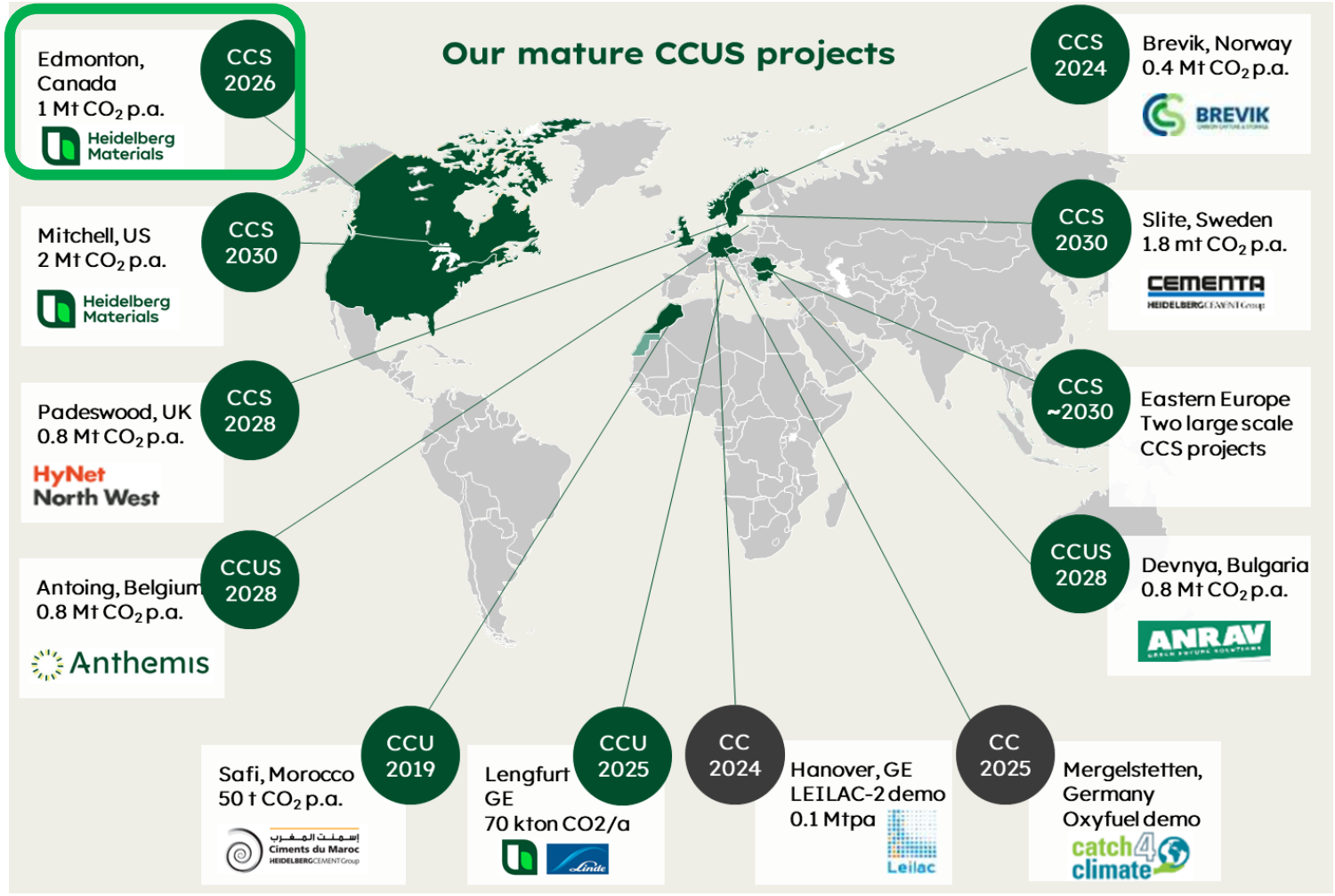
2. We commit to generate 50% of our revenue from sustainable products by 2030.

3. We commit to reduce CO_2 emissions by almost 50% to 400 kg CO_2/t CEM by 2030.

4. We will make this transition a successful business case: on growth, margins, cash flow, ROIC, and leverage.

5. We drive the change for the benefit of our customers, our shareholders, our employees, and the society we live in.

CCUS project portfolio is extensive and most advanced in the sector



We aim to cumulatively capture 10 Mt CO_2 by 2030

Heidelberg Materials North America

~9,000

employees
in 28 states and 6 provinces

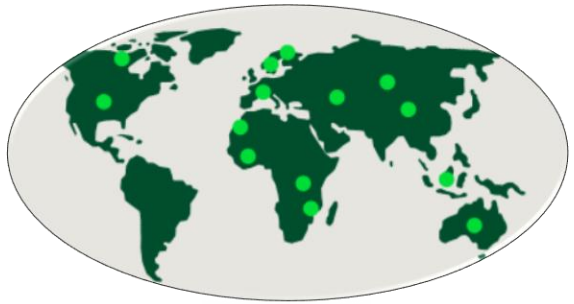
>450

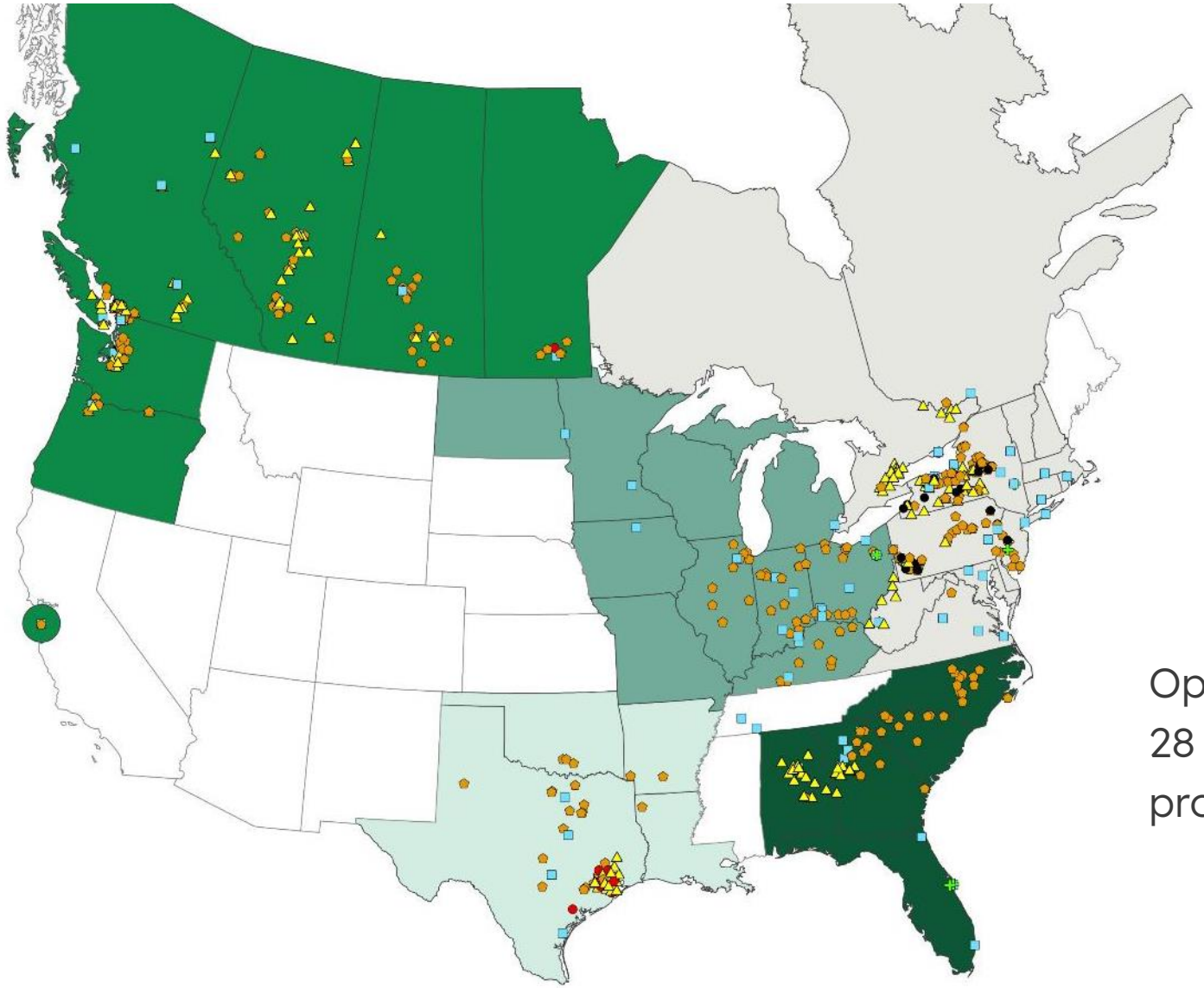
manufacturing locations, distribution terminals and sales yards

Leading positions in: cement, aggregates, and ready-mixed concrete

Heidelberg Materials is evolving our portfolio, products and services—providing the materials

Our geographic footprint





Operations in 28 states and 6 provinces

Project Overview

Production of world's first carbon free concrete without using offsets

Captures 95 per cent of the carbon dioxide (CO_2) from cement plant and the integrated combined heat and power plant (CHP)

- an estimated 1,000,000 tonnes of CO_2 stored annually for the life of the project

Additional environmental benefits including

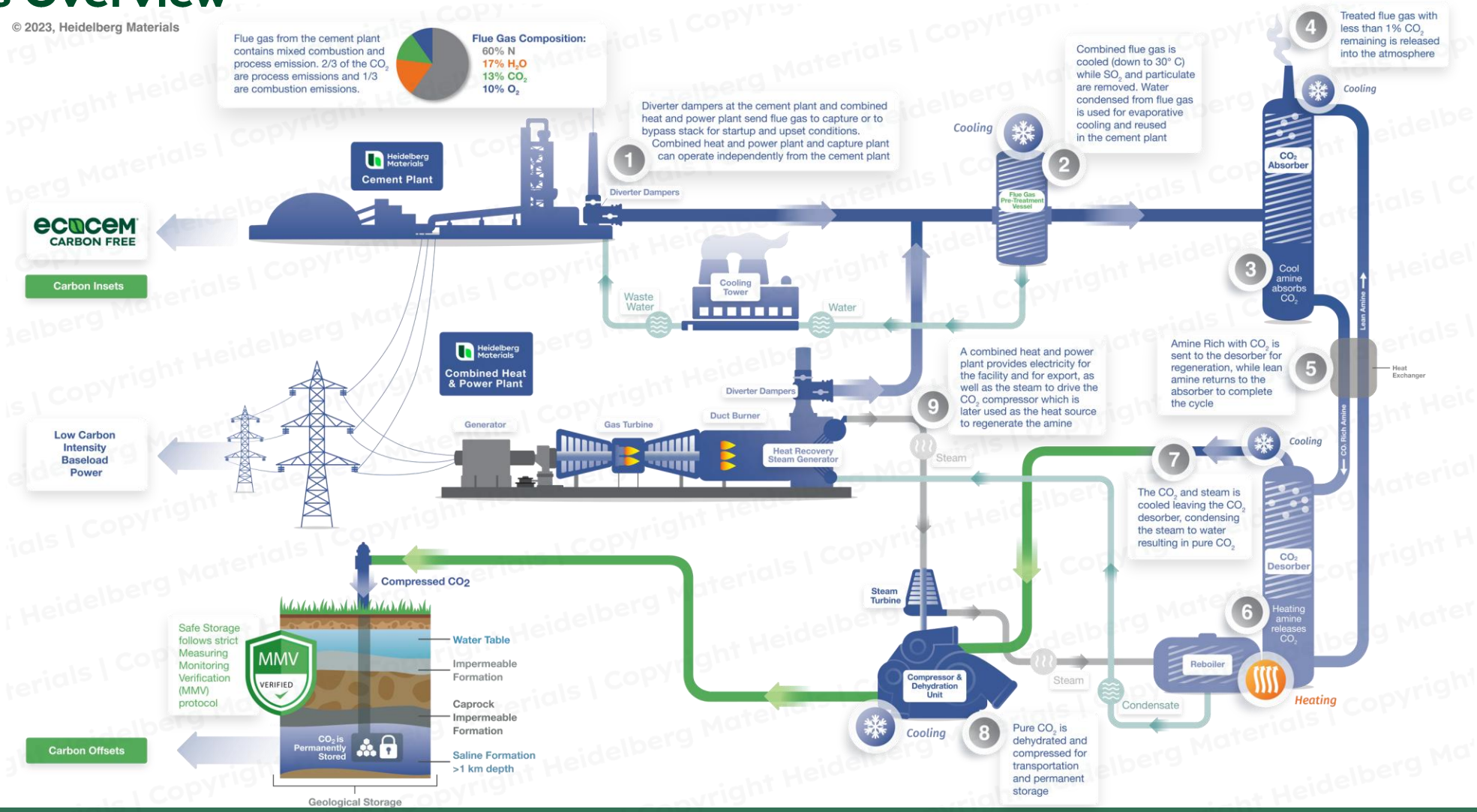
- Improved air emissions
- Reduced freshwater consumption

3rd party Economic assessment finds:

- 7,000 person years construction
- GDP Impact – Construction $895M, annual $140M

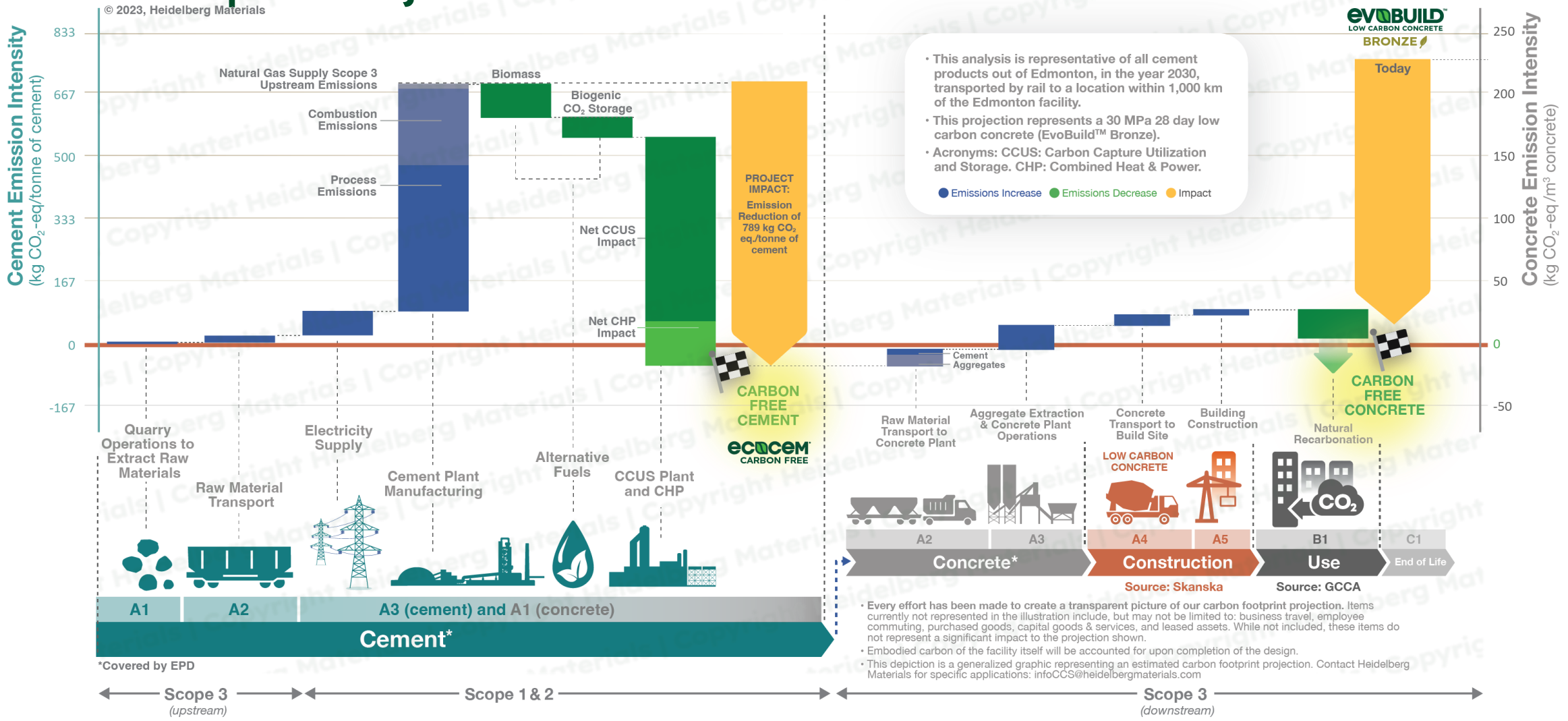
A Flagship Canadian Project - The Worlds First Full-Scale Carbon Capture Project for Cement

Process Overview



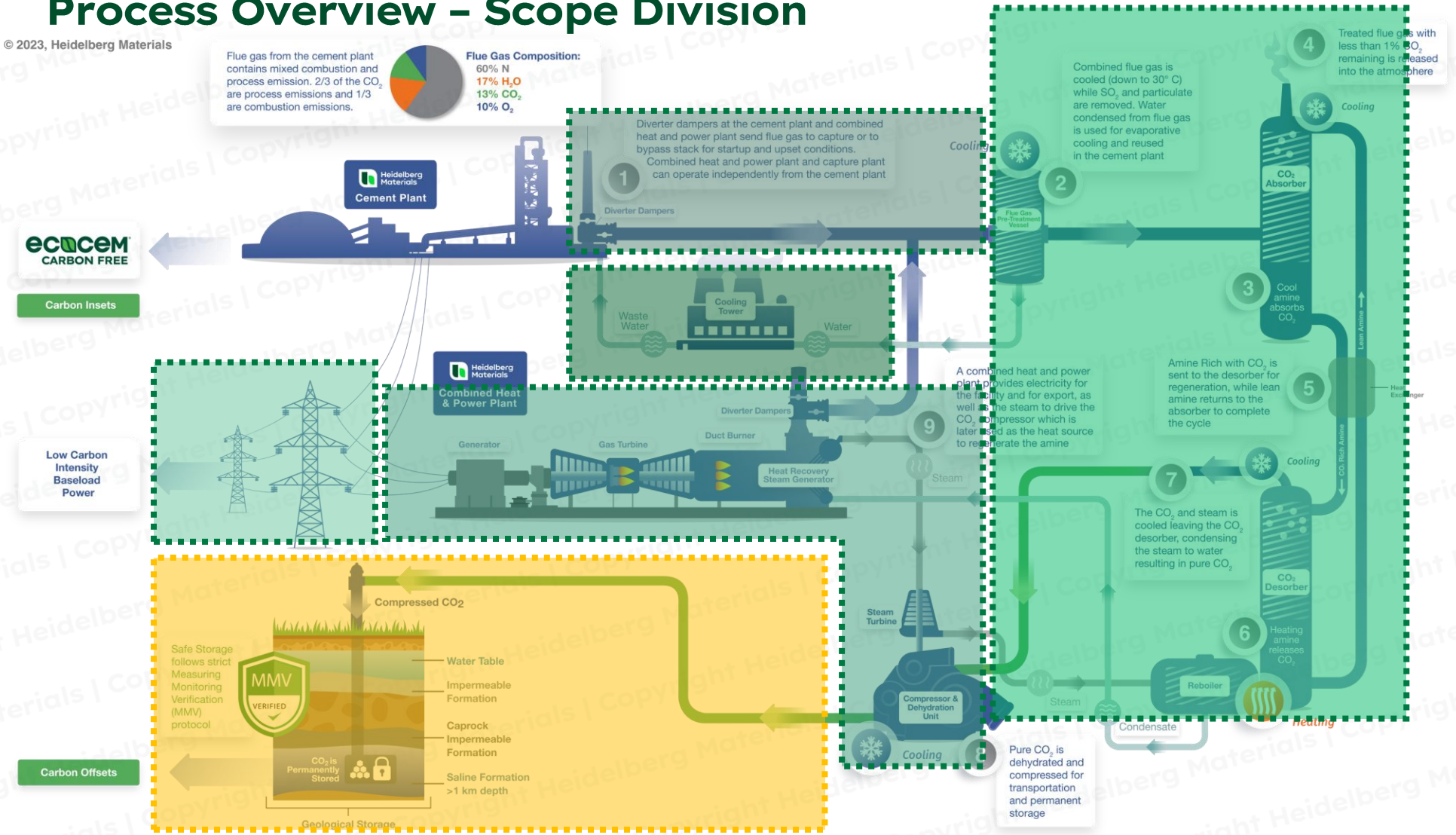
Innovative Project - Combines Cement and Clean Power with Emissions Reductions

Carbon Footprint Projection



Produces The World's First Carbon Free Cement, Without Offsets, Enabling Carbon Free Concrete

Process Overview – Scope Division



Edmonton CCUS

Procurements
Owner's Engineer RFP
Pilot Plant RFP
S1: Gas Turbine & Generator Supply RFP
S2: HRSG RFP
S3: CO2 Compressor and Dehydration RFP
S4: Plant Control System Supply RFP
S5: Major Electrical Equipment Supply RFP
EPC1: CO2 Capture Plant RFP
EPC2: Flue Gas Duct RFP
EPC3: CHP Plant, CO2 Compression RFP
EPC4: Heat Rejection & Water Treatment Plant RFP
EPC5: Support Facilities RFP
C1: HV Substation & MV Distribution RFP

Splitting Scopes Key To Achieving Value And Utilizing Energy Sector Project Delivery Infrastructure

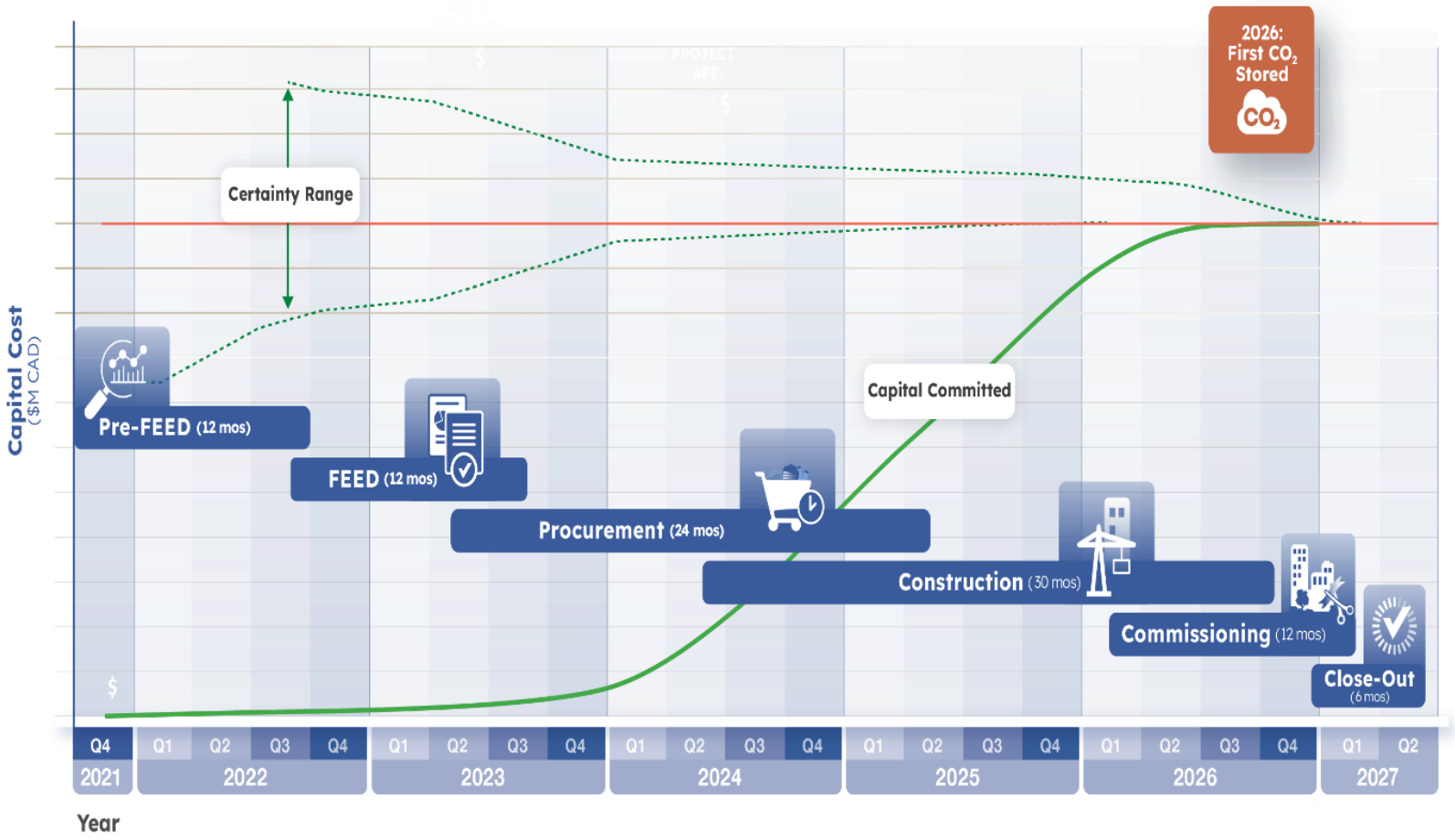
Project Development Roadmap

Feasibility Study (2019) – completed
- ERA provided $1.4M of Funding

Pre-FEED (2021) – completed
- Optimized the use of CHP to improve plant utilization and performance
- Established significant net emission reductions and carbon free cement
- Business case viable with anticipated supports and carbon value

FEED Study (2022-Q3) – launched
- Project sub-divided to attract local energy industry suppliers
- 2-Stage competitive FEED process reduces project risk profile
- Purchase of long-lead items
- Pilot Plant Operation – July 2023

Project proceeding - first CO_2 capture in 2026



A First Mover Project – Early Technology Adoption and Fast-Track Schedule

CO2 Storage Developments

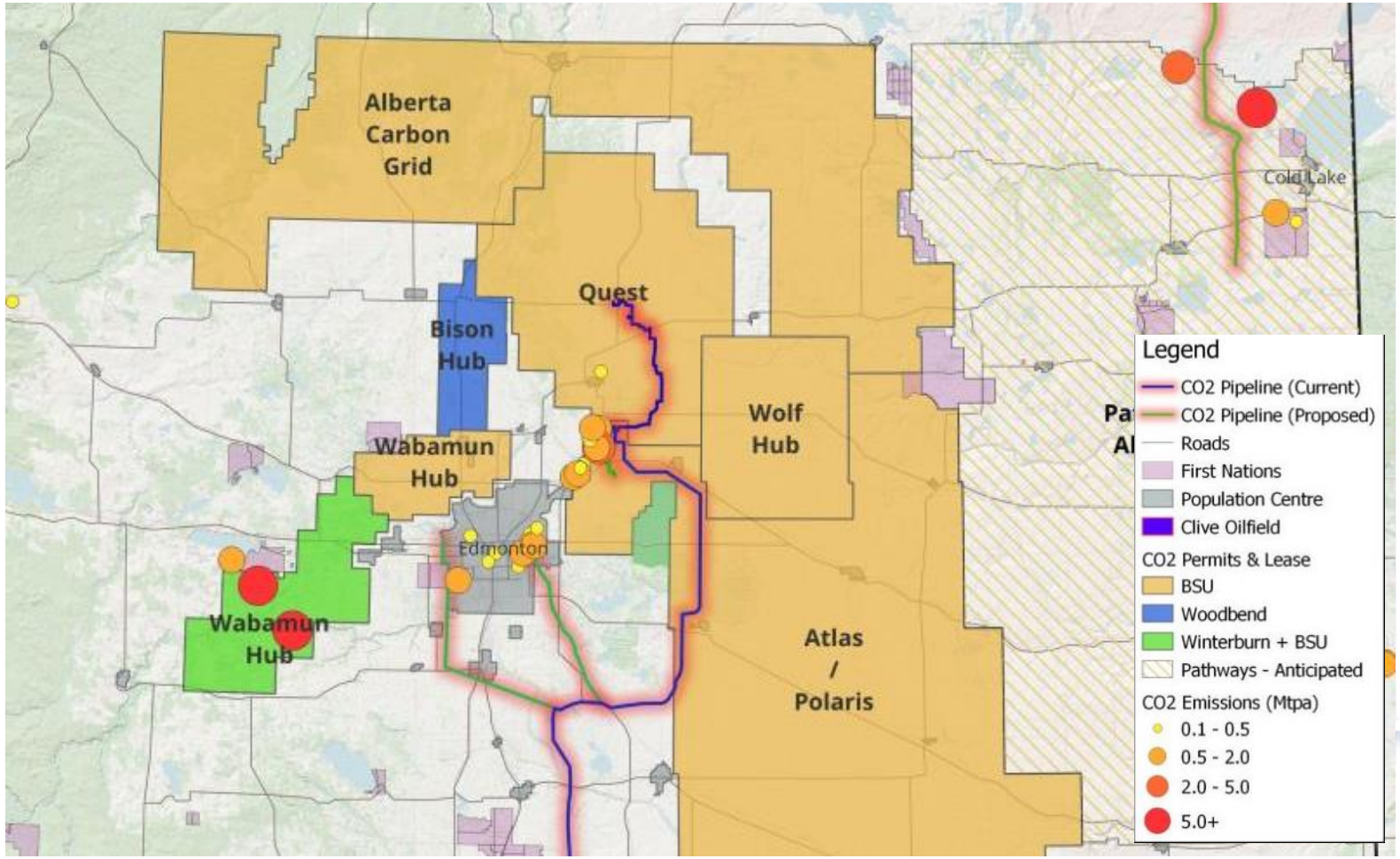
Enbridge Wabamun (North) Hub

- Lehigh Development MOU - Q1–2022
- First Nation Capital Investment Partnership (FNCIP) - Q1-2022
- Government of Alberta Hub Award – Q2-2022
- Preliminary Costing Agreement (PCA) – Q1-2023
- Test Well Drilling – Q4-2023
- Class 3 cost estimate due – Q2-2024

Enbridge Wabamun (South) Hub

- Capital Power MOU - Q1–2022
- Test Well Drilling – Q2-2023

20+ CO2 Storage Hubs in Early Development



Wabamun North Hub – Preferred Storage Provider – Development Aligned to Project Needs

Next Steps

Business Case

- Secure commitments for carbon value and capital support that are fundamental to project business case
- Develop CO2 transport and storage system with our partner Enbridge
- Clear Q3-2023 Funding Gate

Project Execution

- Deliver 2-stage competitive procurement to develop final project execution plan and costing
- Complete long-term piloting of 2 technology providers to mitigate risks of excessive degradation and residual emissions
- Stakeholder engagement to support project financing and permitting

Transition to Operations

- Develop operations and maintenance capabilities concurrently with the project delivery to ensure high level of operability and maintainability

Thank You – Question and Answer Session

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