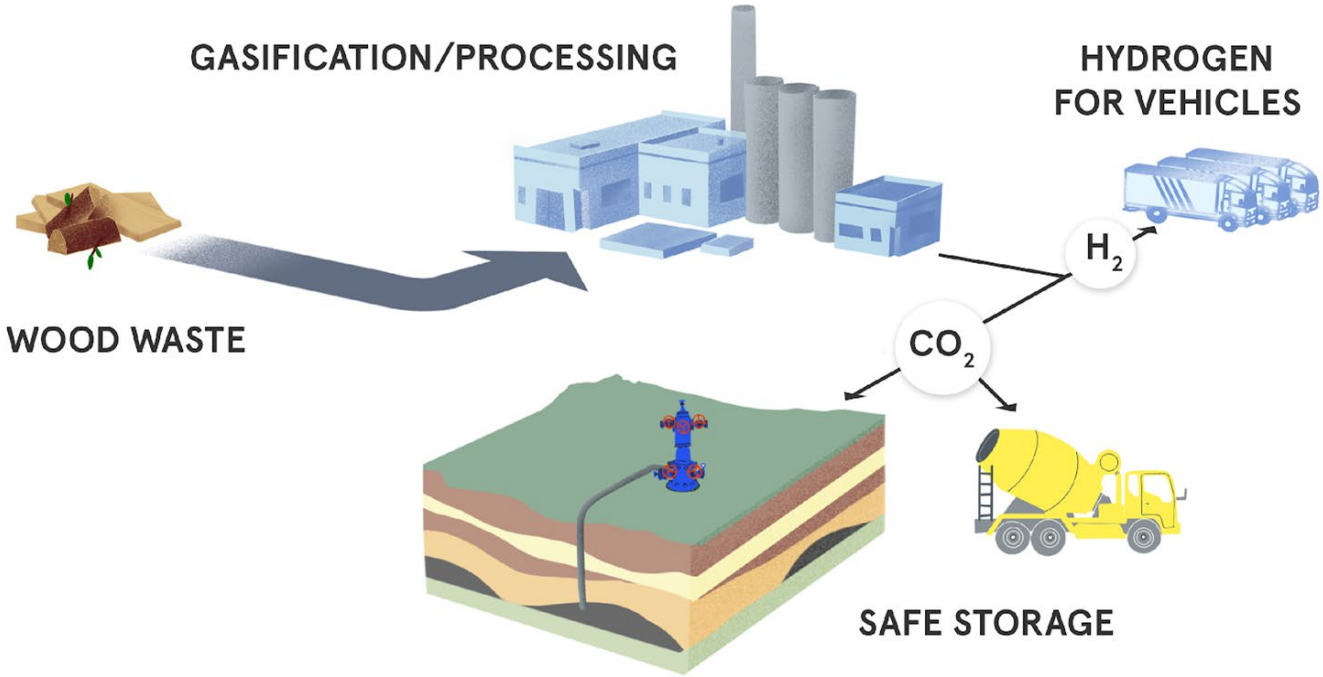
June 2023

mote

Unlocking hydrogen and carbon removal from Earth's abundant wood waste

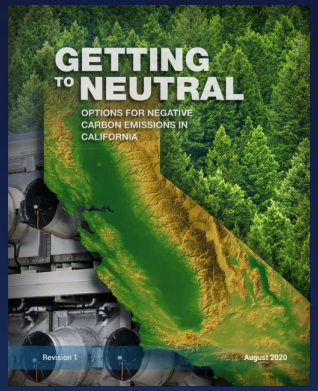
Mote uses biomass for green hydrogen production and safe, permanent CO2 storage at industrial scale



mote

A climate technology company spun out of work at LLNL

Dr. Josh Stolaroff
CEO and Co-founder



David Mittelstadt
SVP of Resources

30+ years biomass sourcing

Erika Pham
VP of Strategy

H_2 refueling stations

John Grabowski
VP of Capital Projects

30+ years energy projects

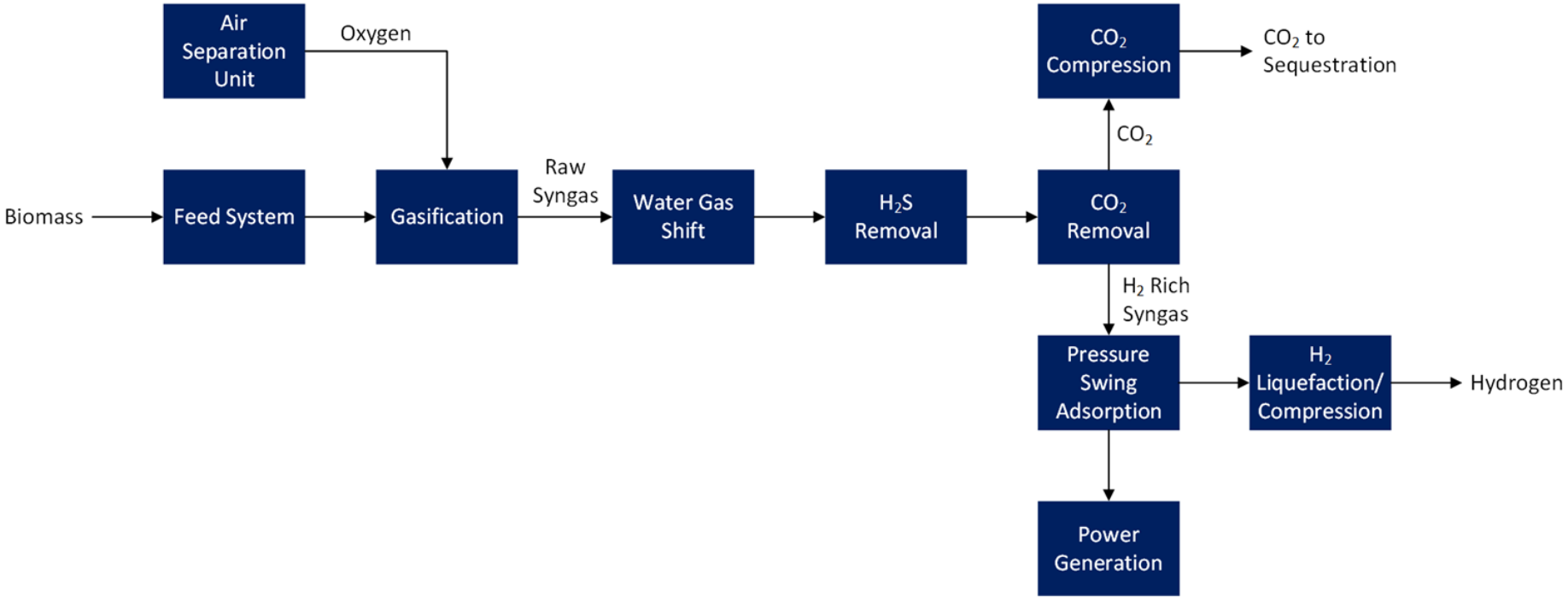
Alison Chen
Director of Process Engineering

Gasification Expert

Trinity Wells
Fractional CFO, Finance

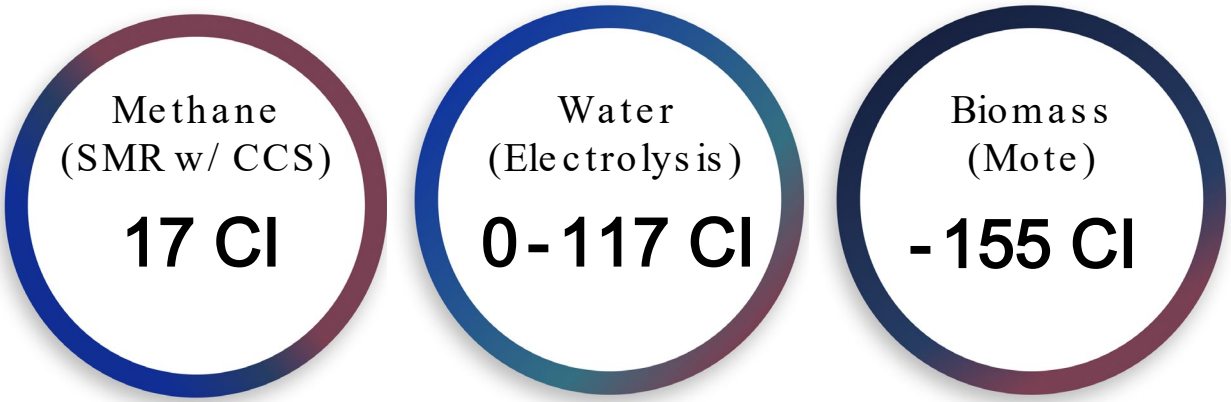
Investment banking, corporate finance

Process Overview



Ultra-negative Carbon Intensity (CI)

Utilizing biomass allows us to unlock the value of the carbon removal market for the purpose of producing green hydrogen



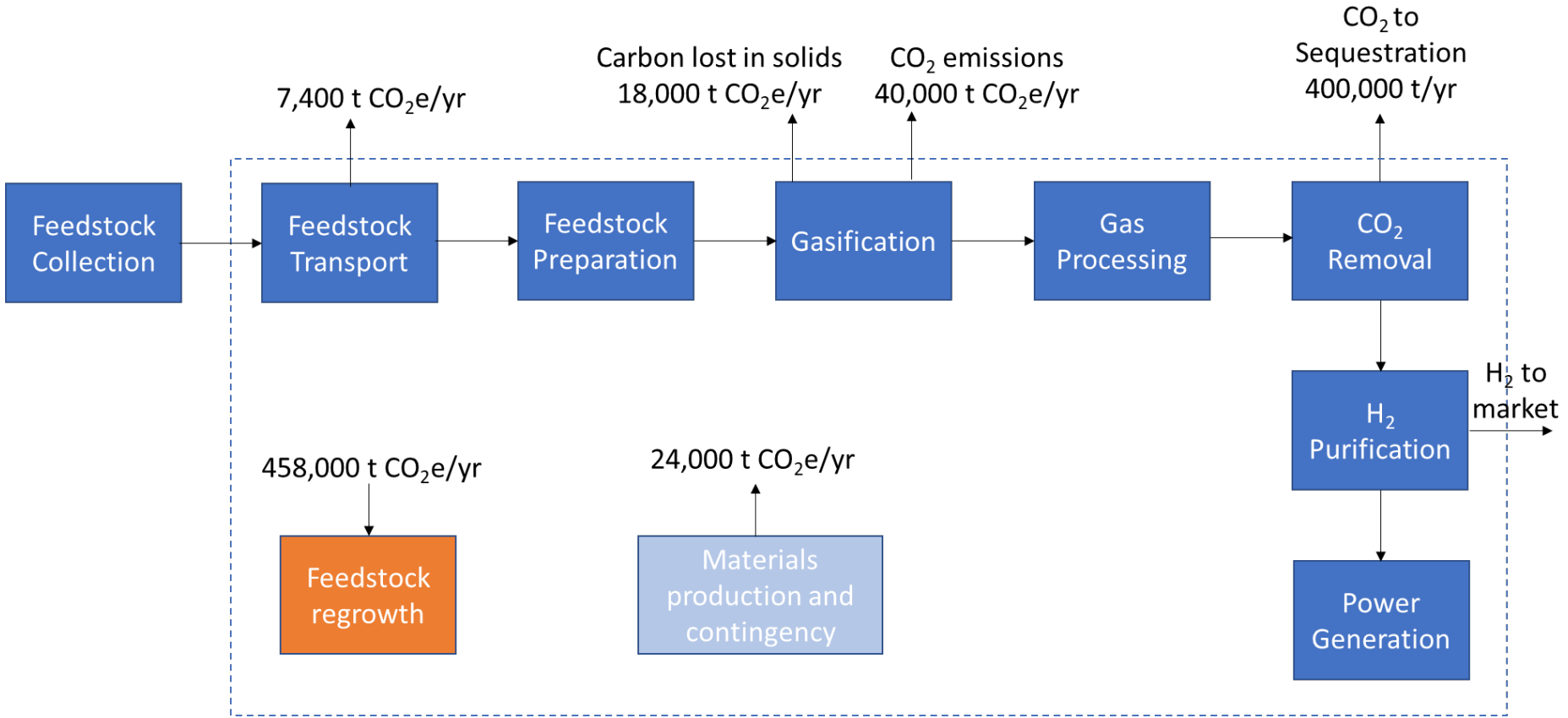
Note: CI in gCO2/MJ
Source: Columbia | SIPA – Center on Global Energy Policy

CI Score for Mote Hydrogen

Transportation & Lifecycle Emissions	13.0
Emissions from Electricity**	0.0
Carbon Removal	-168.0
Net CI Score	**-155.0**

** With renewable electricity. Grid electricity would add +53.

Life Cycle Carbon Flows



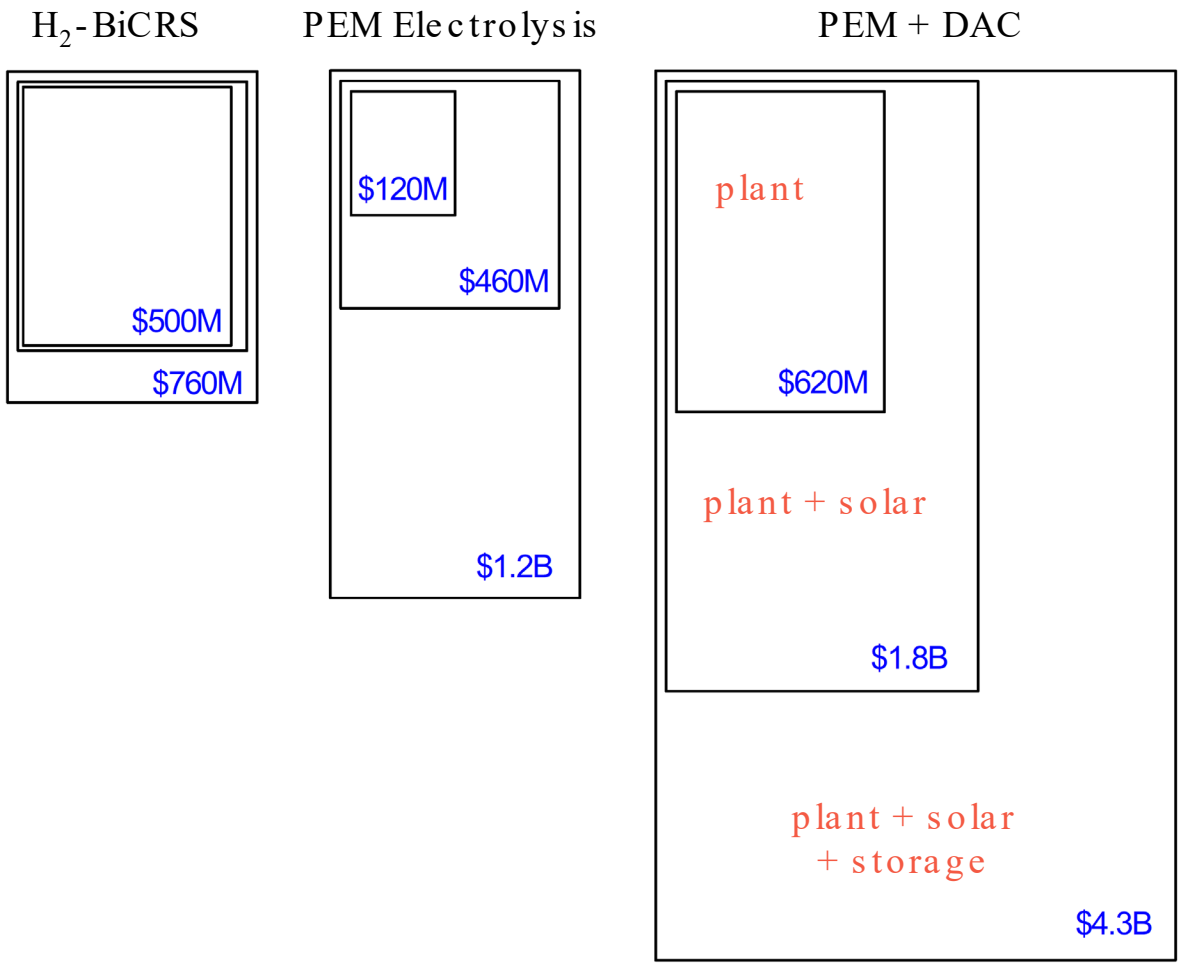
First commercial plant: operation in 2027

Funding opportunities that provide additional commercial traction

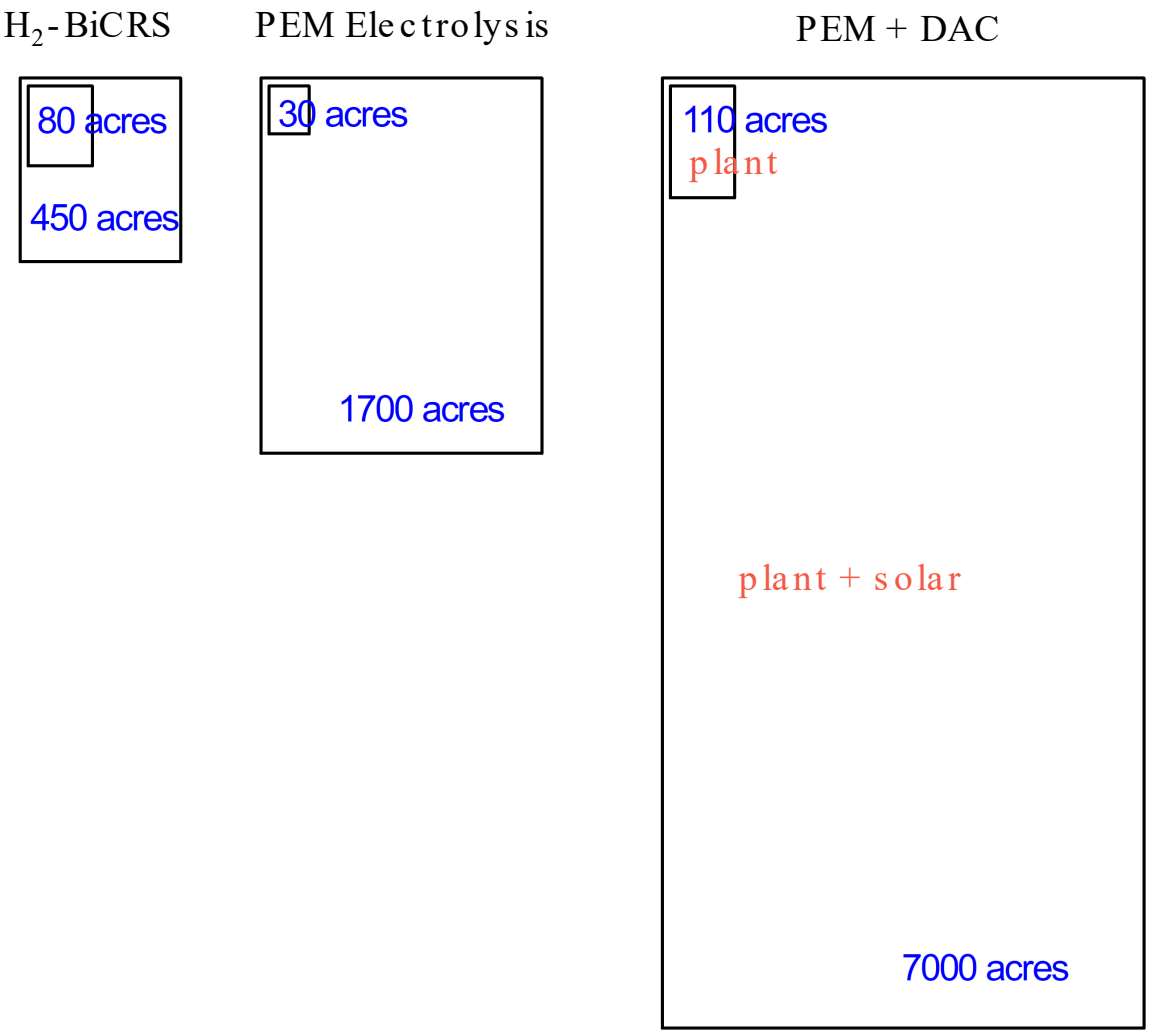
1. Department of Energy Loan Programs Office
   - Mote's Part 1 LPO application has been approved
   - Mote received the official Part 2 invitation in June 2023
   - LPO can cover up to 80% of the project cost for Project 1
2. ARCHES DOE Hydrogen Hub Application
   - Mote's Project 1 was selected as a tier 1 project for ARCHES Hydrogen Hub application submitted April 2023
3. California Department of Conservation Grant
   - Mote was awarded $500,000 grant for feasibility efforts for Project 2 with Sacramento Municipal Utility District (SMUD) as the hydrogen offtaker
   - Mote and SMUD have been actively working on this project since April 2023
4. United States Department of Agriculture – Forest Service Grant
   - Mote was awarded $175,000 grant for engineering and entitlement efforts for Project 2 in June 2023
5. DOE Office of Technology Transitions – Technology Commercialization Fund
   - Project led by NREL; Mote will serve as an industry partner using Project 1 information

H_2-BiCRS far less capital intensive than Electrolysis + DAC

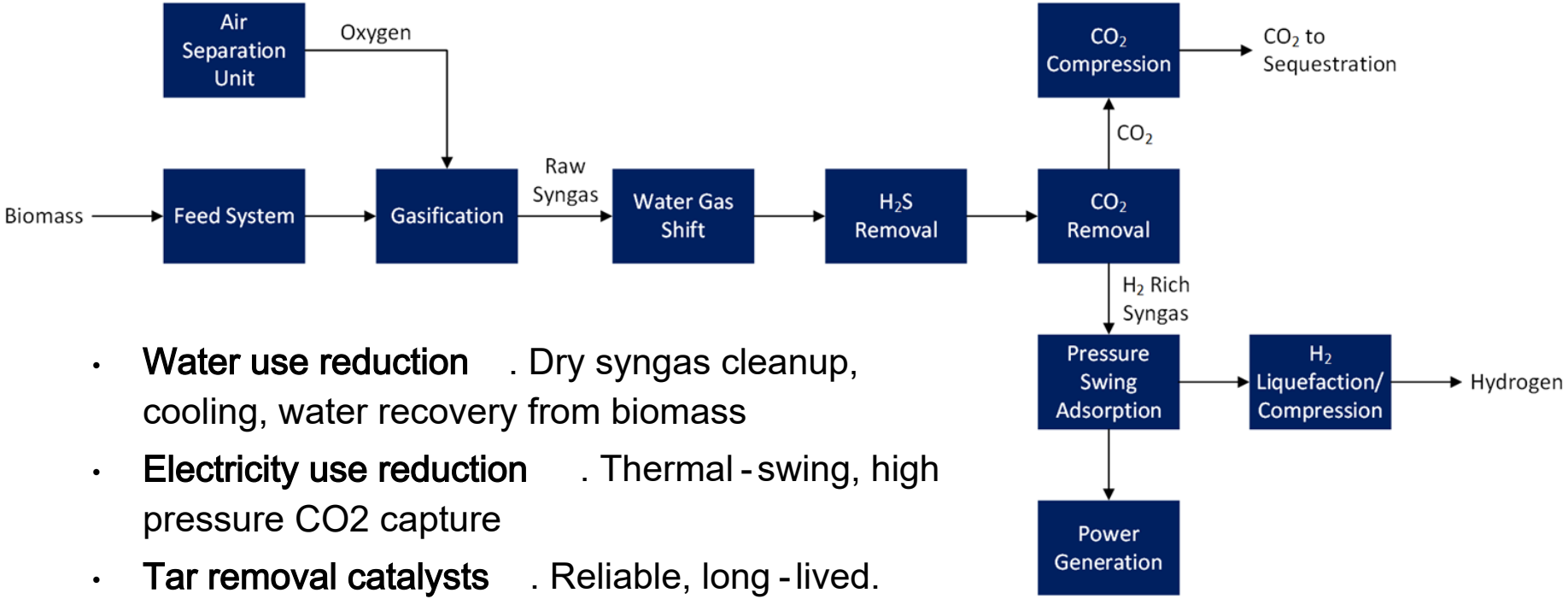
Solar source : NREL. U.S. Solar Photovoltaic System and Energy Storage Cost Benchmarks: Q1 2021
PEM source : NREL. H2A: Hydrogen Analysis Model v. 3.2018
DAC source: McQueen, Noah, Michael J. Desmond, Robert H. Socolow, Peter Psarras, and Jennifer Wilcox. “Natural Gas vs. Electricity for Solvent - Based Direct Air Capture.” Frontiers in Climate 2 (2021).



H_2-BiCRS also saves huge swaths of land.



R&D Opportunities



- **Water use reduction** . Dry syngas cleanup, cooling, water recovery from biomass
- **Electricity use reduction** . Thermal-swing, high pressure CO2 capture
- **Tar removal catalysts** . Reliable, long-lived.
- **Single-stage shift catalyst**
- **Combined CO_2 capture / H_2 cleanup**