

**MID-CONTINENT CLEAN
HYDROGEN HUB**

Mid Continent Clean Hydrogen Hub - Background

- The Federal Infrastructure Investment and Jobs Act was signed into law in November 2021
- Governor Ricketts signed LB 1099 for the Nebraska Department of Economic Development to create the Nebraska Hydrogen Hub Industry Work Group
- NPPD has been working with a number of parties to develop a concept for a regional clean hydrogen hub

≡ Hydrogen Hub – Why?

- Position Nebraska for the transition to a lower carbon economy
- In-state and regional economic development
 - Opportunity to further diversify Ag industry and increase food security
 - Increase manufacturing sector in the state
 - Focus is on carbon free / renewable energy
 - **GREEN** hydrogen, CO2 and electricity
- Potential future generation opportunities

Hydrogen Hub Committees

LB1099 Committee

- **Tom Kent** – President & CEO, NPPD
- **Mark McHargue** – President, NE Farm Bureau
- **Amy Ostermeyer** – Executive VP of Development, Monolith
- **Blake Hotzel** – VP of Business Development, Tallgrass Energy
- **Scott Moore** – Senior VP of Corporate Relations, Union Pacific
- **Chad Dittberner** – Senior VP Van/Expedited Division, Werner Enterprises

Subcommittees

- Energy
- Transportation
- Agriculture
- Environmental, Social, Governance (ESG)

Decarbonization Pathways Enabled by Innovation

Decarbonization

Accelerate economy-wide, low-carbon solutions

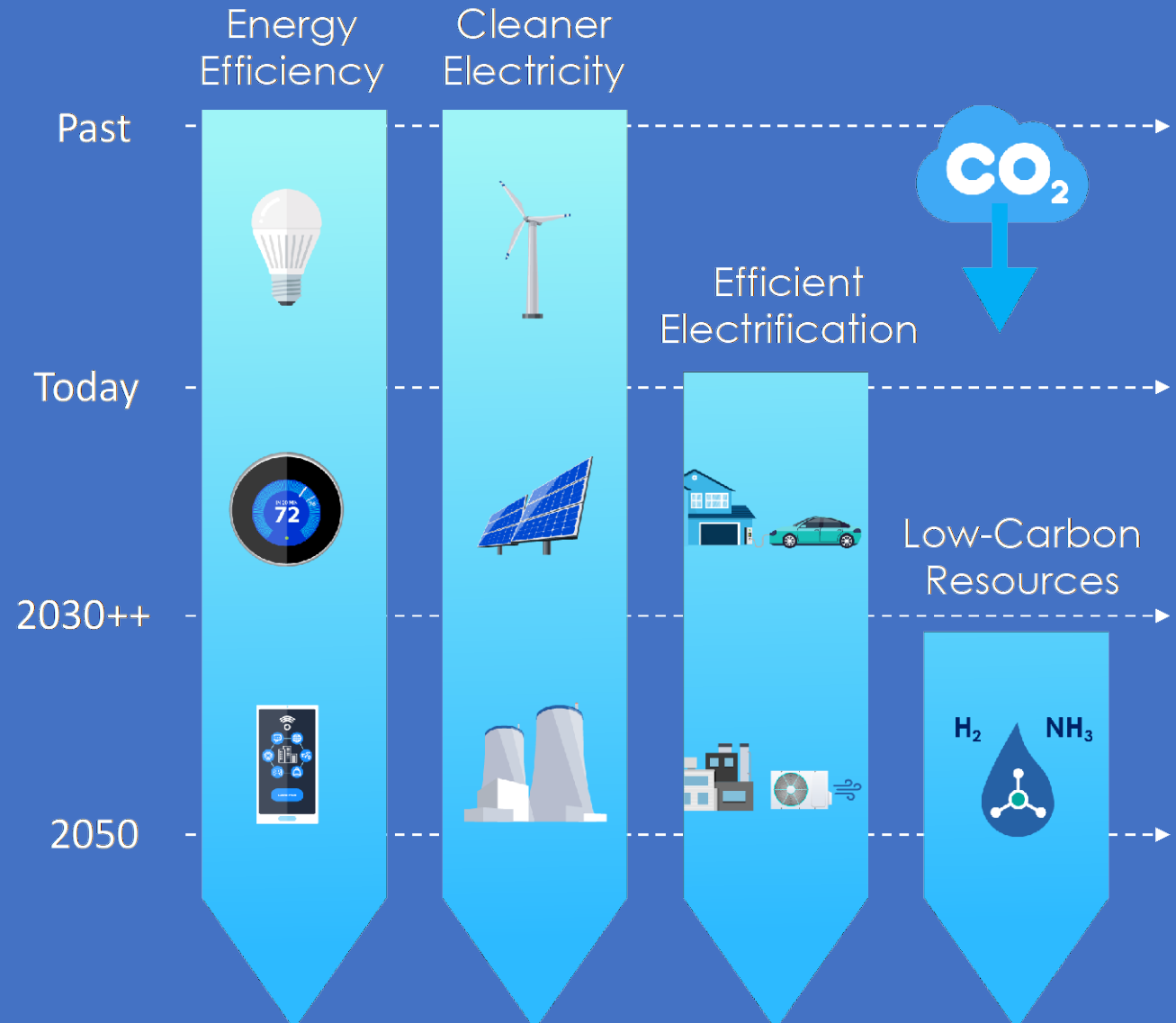
- Electric sector decarbonization
- Transmission and grid flexibility: storage, demand, EVs
- Efficient electrification

Achieve a net-zero clean energy system

- Ubiquitous clean electricity: renewables, advanced nuclear, CCUS
- Negative-emission technologies
- Low-carbon resources: hydrogen and related, low-carbon fuels, biofuels, and biogas

~10-15 years

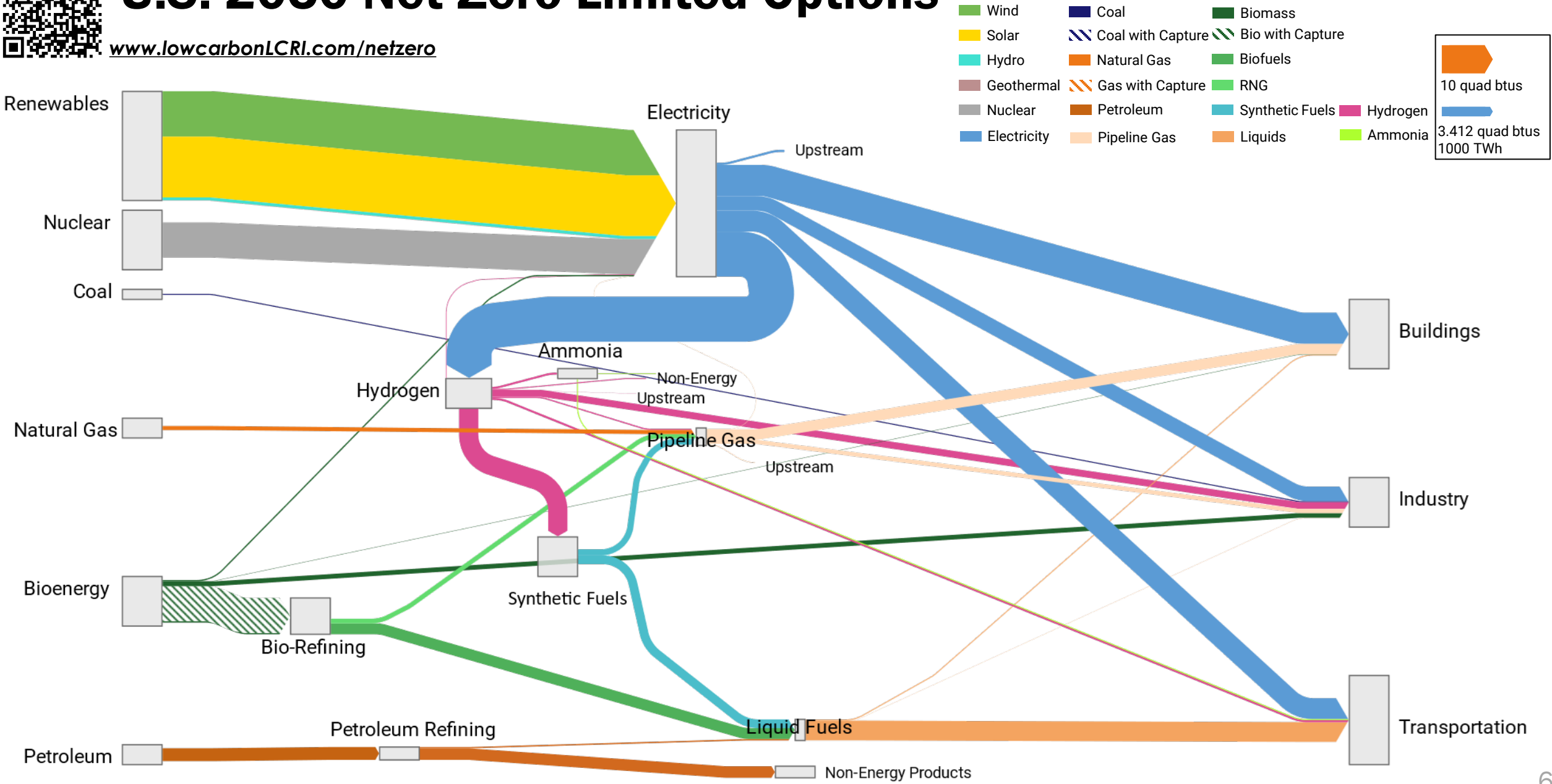
~15-30 years



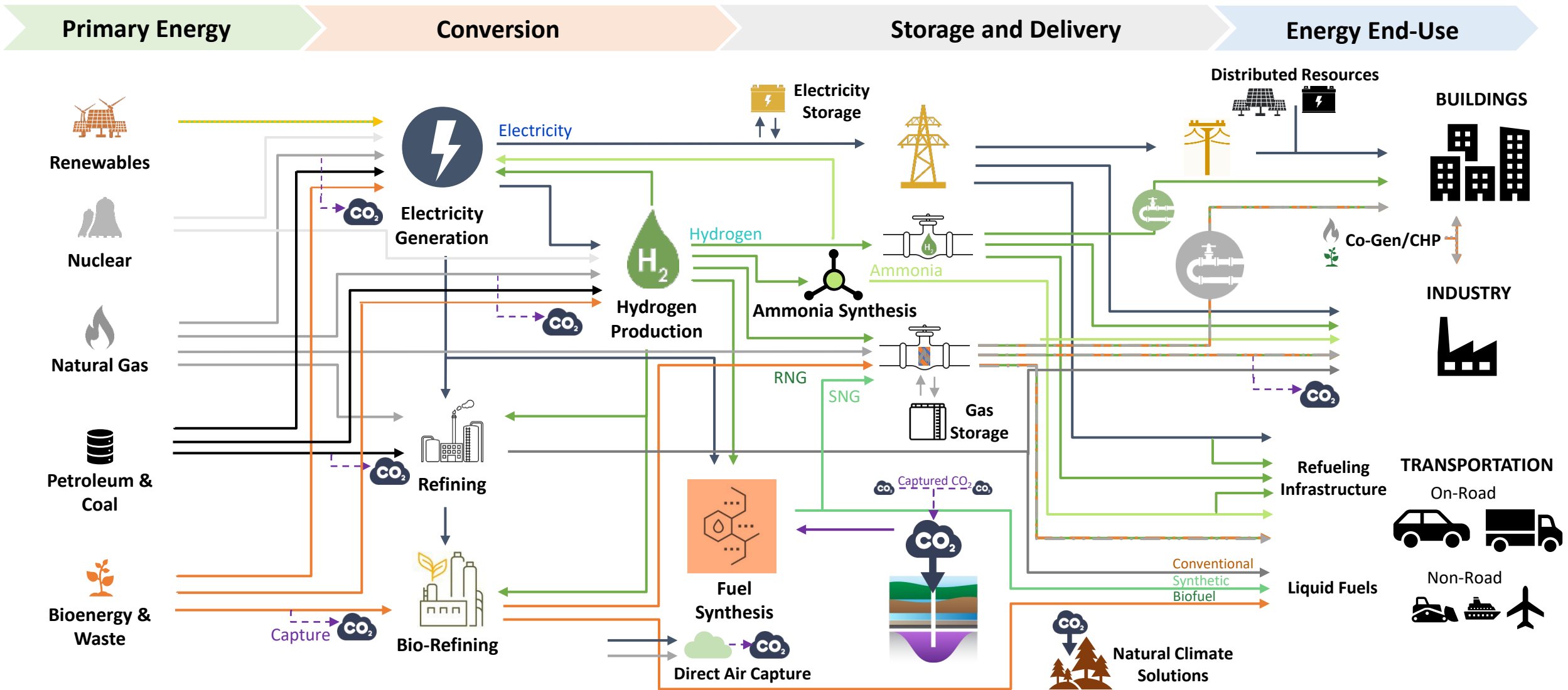


U.S. 2050 Net-Zero Limited Options

www.lowcarbonLCRI.com/netzero



Energy System is Becoming More Complex



The MCH2 hub has diversity in hydrogen production and end-use applications



Fertilizer needs for the nation's largest corn-producing region



Transportation fuels like ethanol, renewable diesel, and sustainable aviation fuel (SAF)



Power generation at retrofitted combustion turbine and industrial facilities



Industrial applications, including cement and steel production

MCH2 Current Status

- Concept Paper accepted by DOE - one of 27
 - DOE will down select to 6 or 10
- Strengths and Weaknesses - comments by DOE addressed
- DOE conducting hub interviews
- MCH2 has not, yet, been notified of an interview
 - Interview is not a precursor to DOE selection

Questions?

Stay connected with us.



Nebraska Public Power District

Always there when you need us