## BIOMASS CARBON REMOVAL & STORAGE

Biomass for Long-Term Carbon Removal and Storage

- Biomass carbon removal and storage (BiCRS) involves capturing carbon dioxide (CO₂) from the air in plants via photosynthesis, and then capturing and storing the carbon in plant biomass rather than allowing it to be re-released to the atmosphere during natural decomposition.
- There are many approaches to BiCRS, because biomass and waste sources, conversion processes and CO₂ storage mechanisms vary.

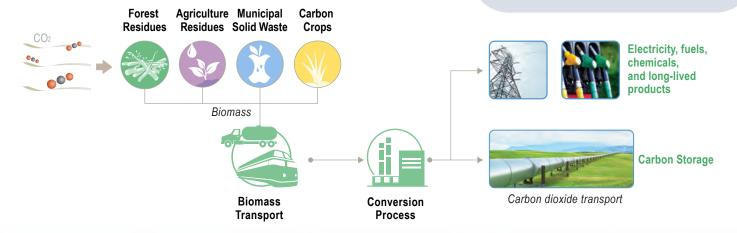
"BiCRS could have an enormous impact on carbon removal – we have a vast amount of waste biomass carbon that could be removed at less than \$100 per metric tonne."

Dr. Sarah Baker

Lead Author, BiCRS

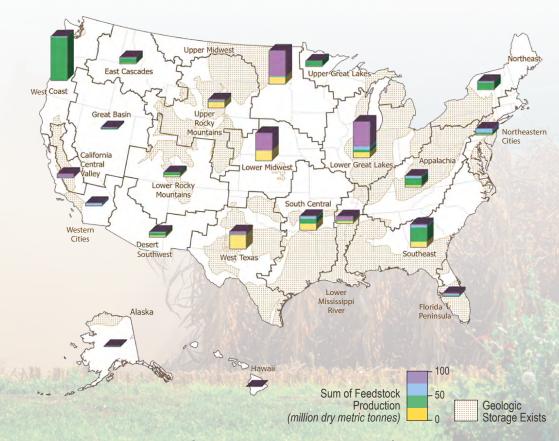
Lawrence Livermore National Laboratory

## Generalized BiCRS Pathway:



## Key Findings:

- BiCRS can remove over 800
  million metric tonnes of CO<sub>2</sub>
  annually in the United States
  without affecting cropland or
  commodity prices, at a
  relatively low cost.
- High-capacity CO₂ removal will require building hundreds of mid- to large-scale facilities across the United States that link reliable biomass supply, biorefineries, geologic storage, and bioproduct distribution.
- BiCRS must be deployed responsibly to avoid displacing natural ecosystems or food production. If deployed conscientiously, BiCRS can be a useful tool for mitigating other harmful air pollutants and promoting restorative environmental justice.



Every region has a story. Every region has an opportunity.

To learn more about each carbon dioxide removal pathway, go to Roads2Removal.org