

BY THE NUMBERS:

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LOOKING FOR CAPTURABLE CARBON

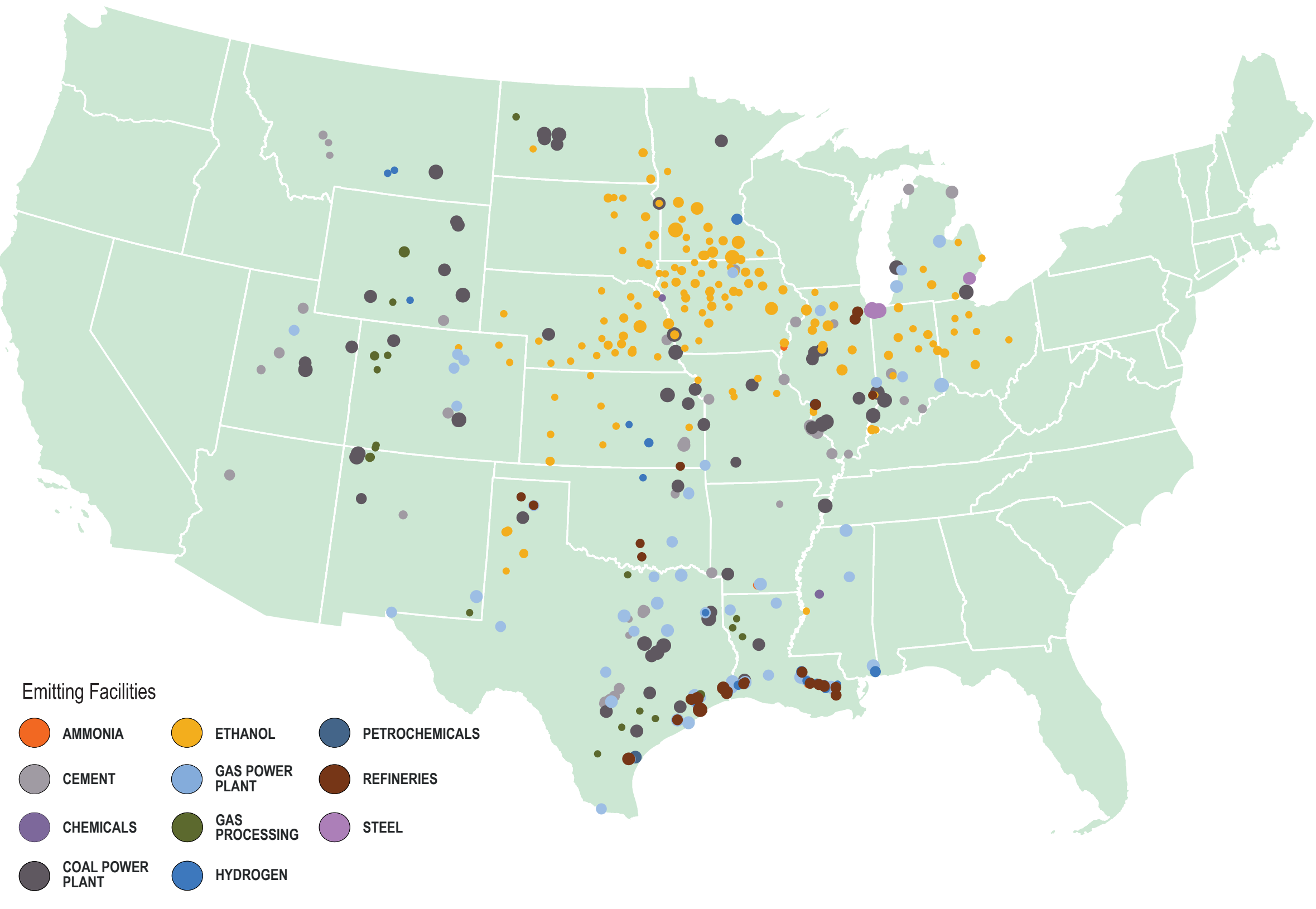
Not all carbon emissions can be sequestered economically.

Out of the more than 6,500 industrial and power plants in the United States, only 418 are capable of supplying carbon dioxide cheaply enough for carbon sequestration. That's the upshot of a recent analysis of the near-term potential of carbon sequestration conducted by Dane McFarlane and Elizabeth Abramson of the Great Plains Institute, a Minneapolis-based non-profit, together with economist Jeffrey Brown of the Enhanced Oil Recovery Institute.

Access to a geologic storage site—or at least a pipeline that could reach it—was a limitation for many of the technically qualifying plants. Another limit is the projected cost of capture, which ranges from less than \$20 a ton for ethanol and gas processing plants to \$59 a ton for a steel mill.

Together, those 418 plants produce 358 million metric tons of capturable CO₂, a far cry from the more than 2,500 million tons produced by all stationary sources.

SITES FOR NEAR- AND MEDIUM-TERM CARBON CAPTURE RETROFITS



| INDUSTRY | NUMBER OF FACILITIES | ESTIMATED COST, PER TON CO ₂ | EST. CAPTURABLE CO ₂ , MEGATONS |
|--------------------|----------------------|---|--|
| Coal Power Plant | 58 | \$56 | 143.4 |
| Gas Power Plant | 60 | \$57 | 67.9 |
| Ethanol | 150 | \$17 | 50.6 |
| Cement | 45 | \$56 | 32.7 |
| Refineries | 38 | \$56 | 26.5 |
| Steel | 6 | \$59 | 14.6 |
| Hydrogen | 34 | \$44 | 14.4 |
| Gas Processing | 20 | \$14 | 4.5 |
| Petrochemicals | 2 | \$59 | 1.7 |
| Ammonia | 3 | \$17 | 0.9 |
| Chemicals | 2 | \$30 | 0.7 |
| Grand Total | 418 | \$39 | 357.8 |

Source: Great Plains Institute, "Transport Infrastructure for Carbon Capture and Storage"