

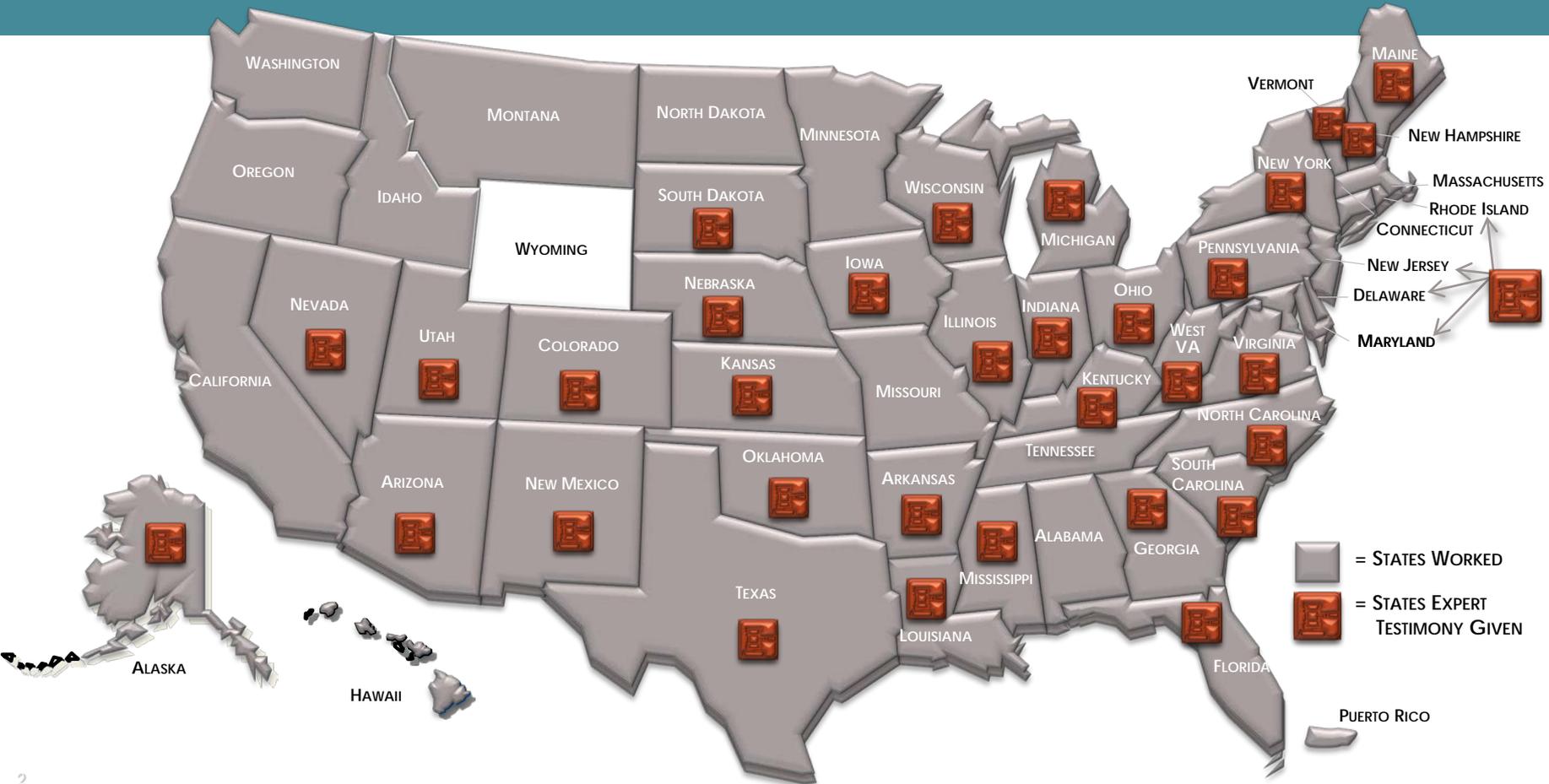


REASONS FOR OPTIMISM IN THE BIOGAS INDUSTRY

Joe Kramer

August 4, 2016

GDS' PROFESSIONAL EXPERIENCE & PERFORMANCE



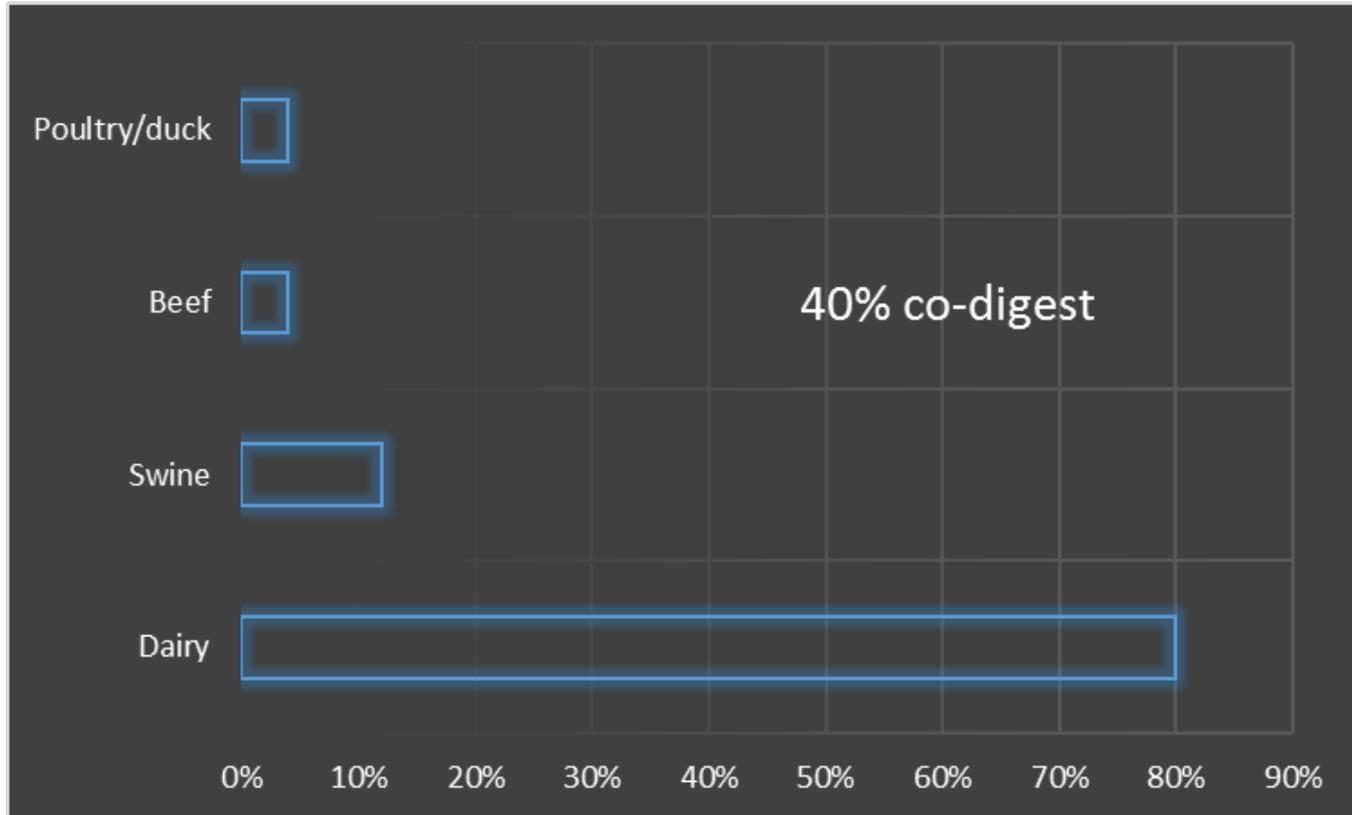
US AGRICULTURAL BIOGAS

□ AgSTAR estimates.

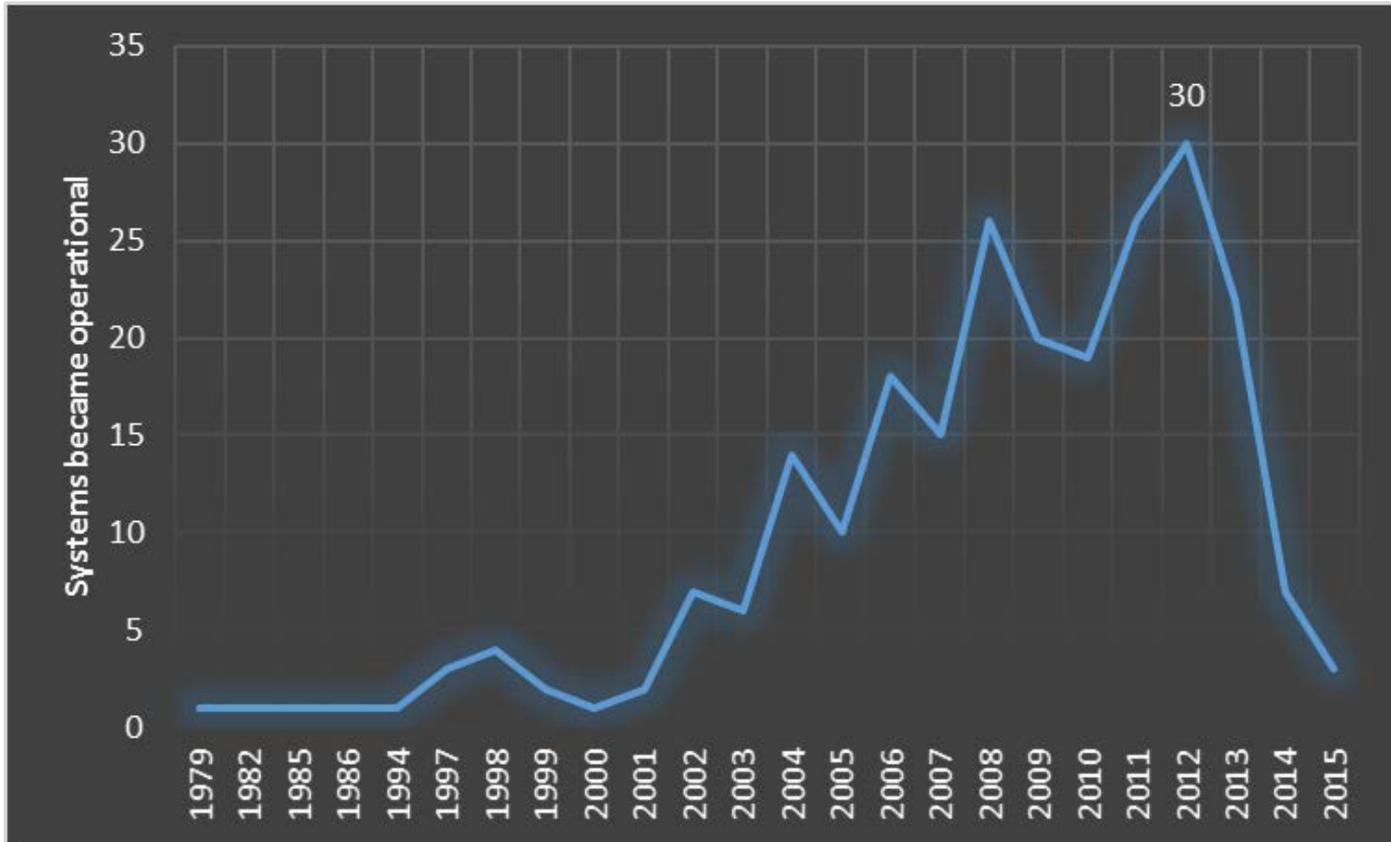
○ 242 operational
17 construction



FEEDSTOCK MIX

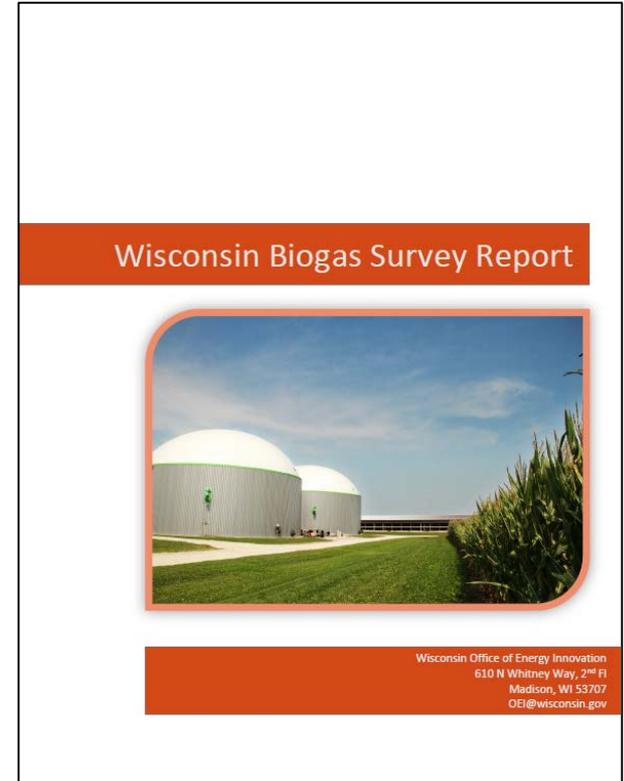


TREND OVER TIME

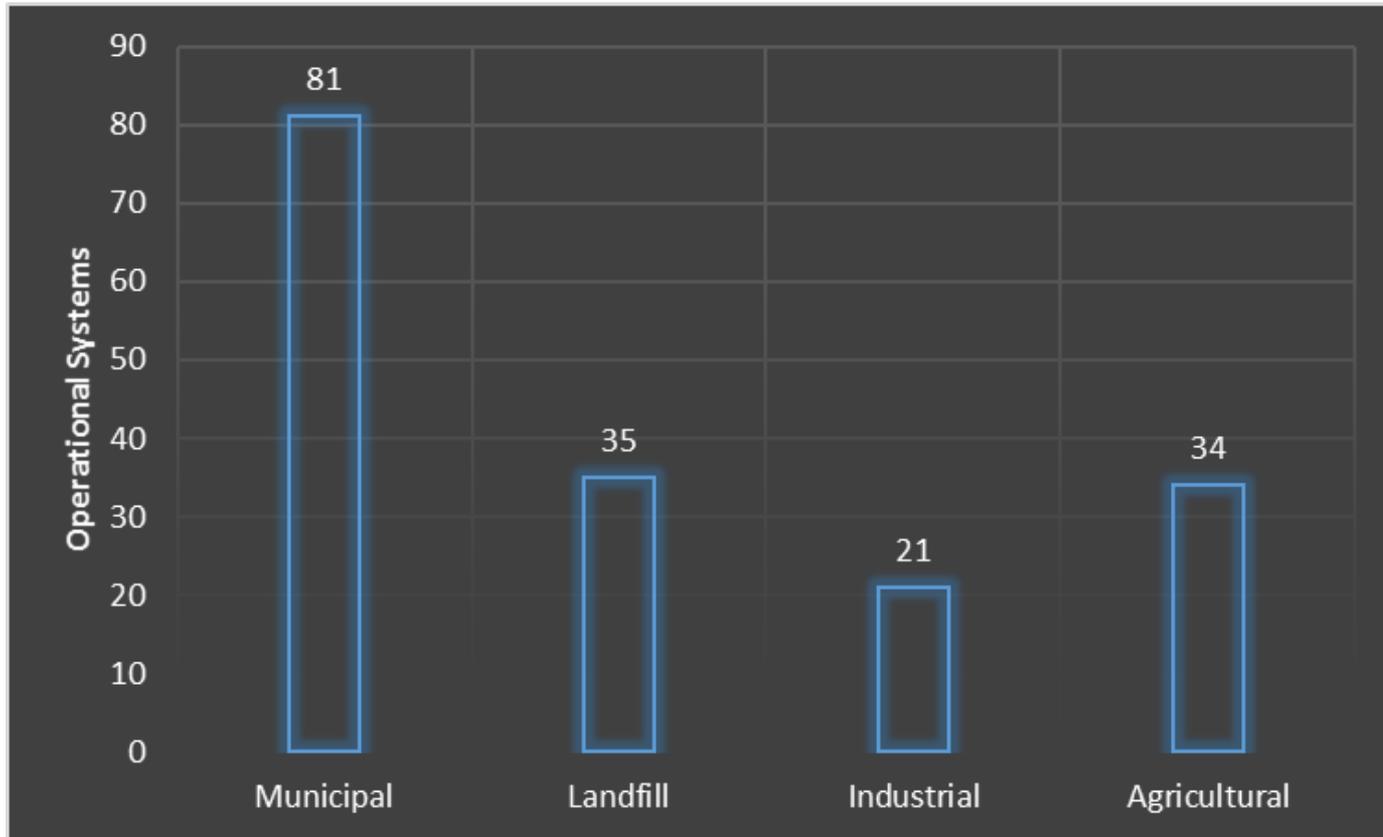


HOW ABOUT WISCONSIN?

- ❑ Office of Energy Innovation
 - Wisconsin Biogas Survey Report - 2016
 - www.stateenergyoffice.wi.gov/



SYSTEMS IN WISCONSIN

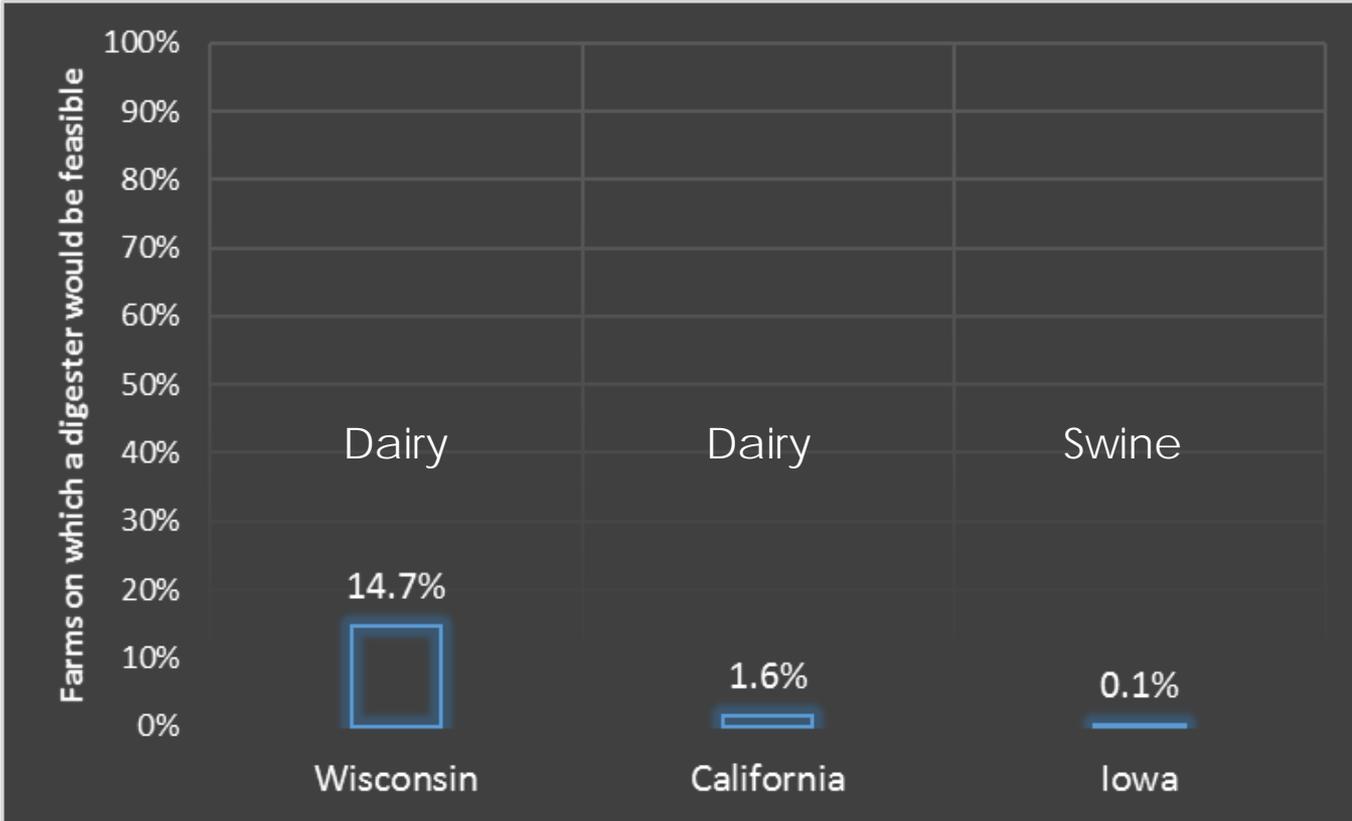


CHALLENGES IN WISCONSIN

- ❑ Old RPS
- ❑ Utility rate restructuring
- ❑ Bad press
- ❑ Lack of policy/ regulatory support
- ❑ Financing



IS WISCONSIN UNIQUE?



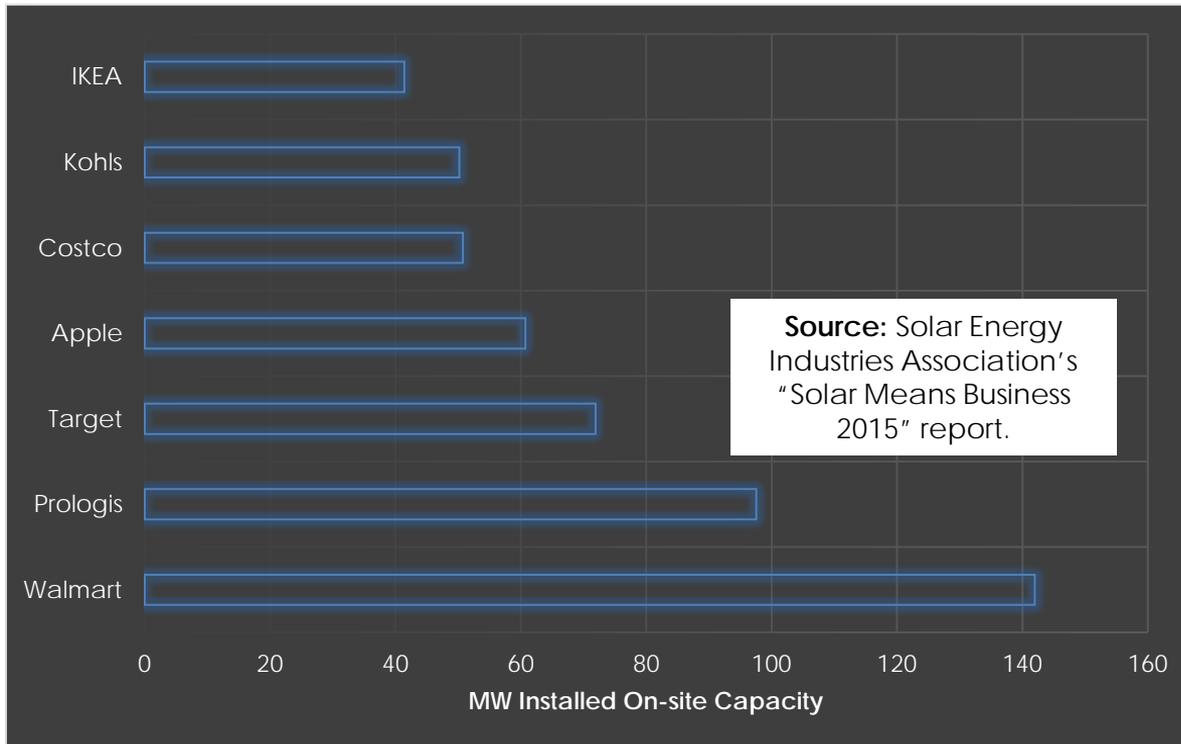
REASON 1

- ❑ Demand will continue to grow
 - Food industry interest
 - Walmart, Kroger, Stop and Shop
 - Initiatives to keep organics out of landfills



REASON 2

□ Corporate interest in renewables

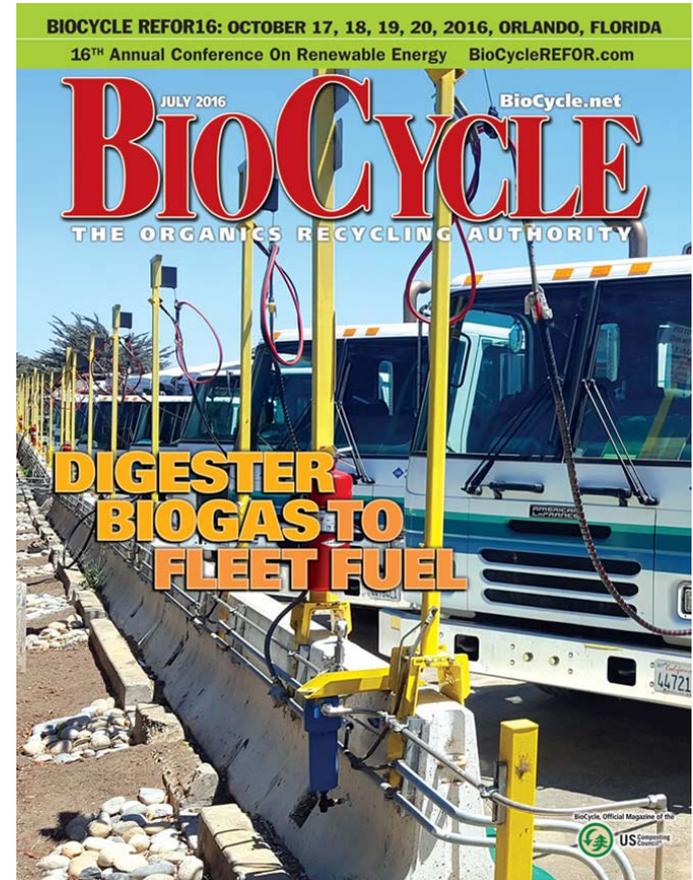


REASON 3

- ❑ Continuous systems improvement
 - Extensive and growing experience
 - Domestic/European
 - Ability to mesh with farm operations
 - Nutrients, water, bedding

REASON 4

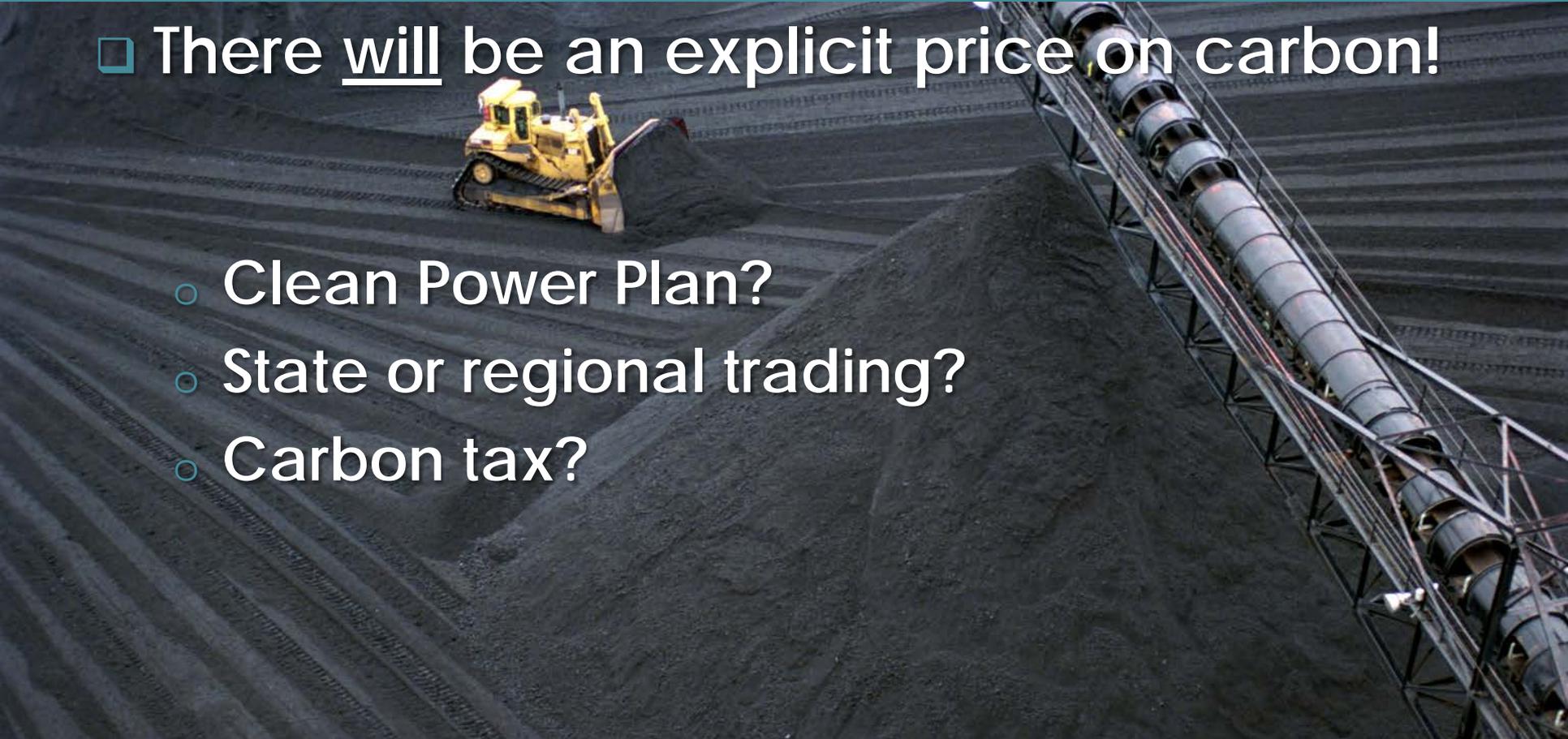
- ❑ Innovation in biogas treatment and use
 - Vehicle fuel
 - Storage and on-peak
 - Pipeline injection and RINS



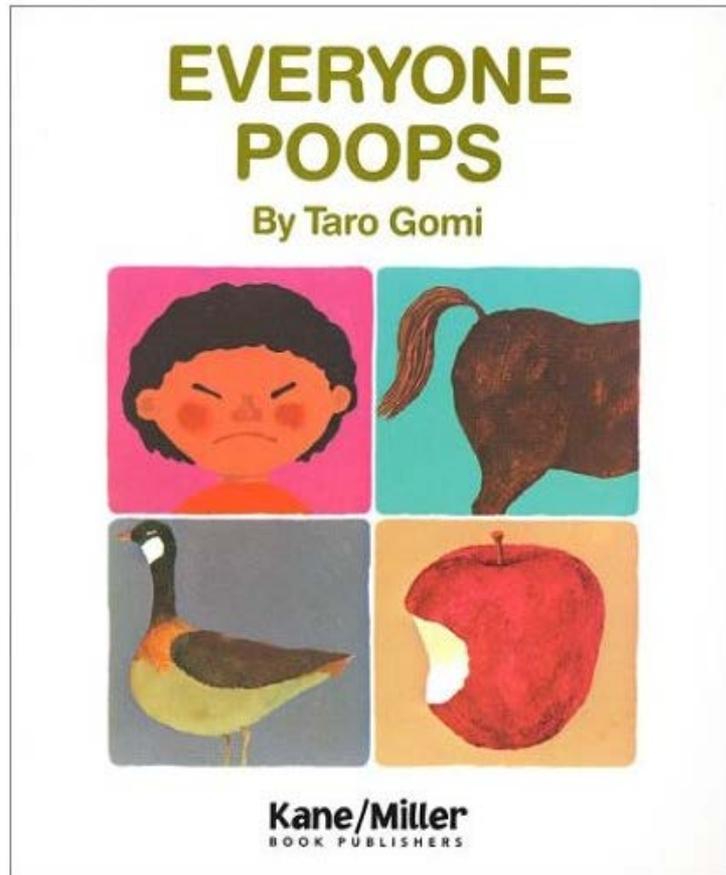
REASON 5

□ There will be an explicit price on carbon!

- Clean Power Plan?
- State or regional trading?
- Carbon tax?



FINAL REASON



THANK YOU!

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