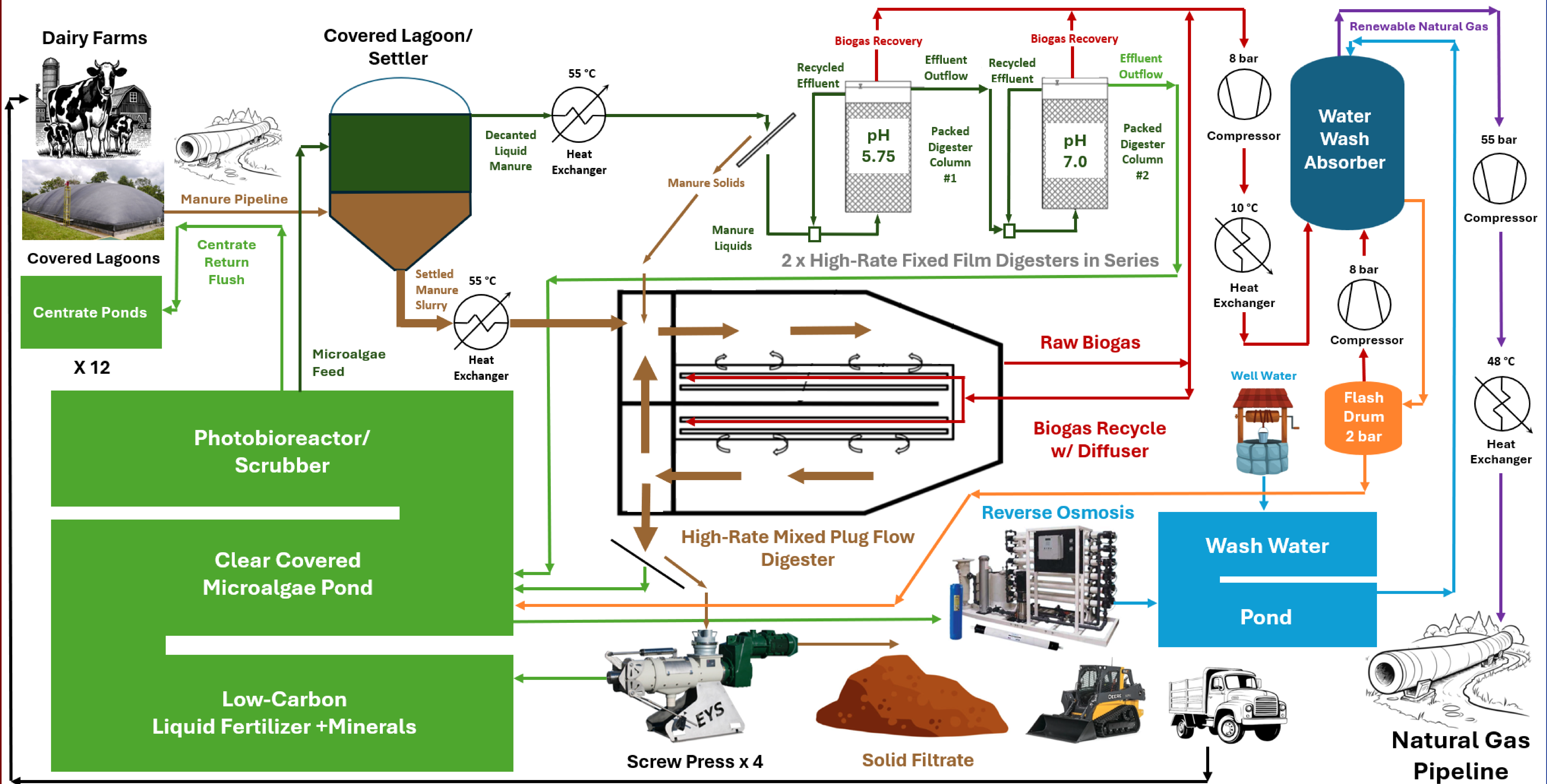
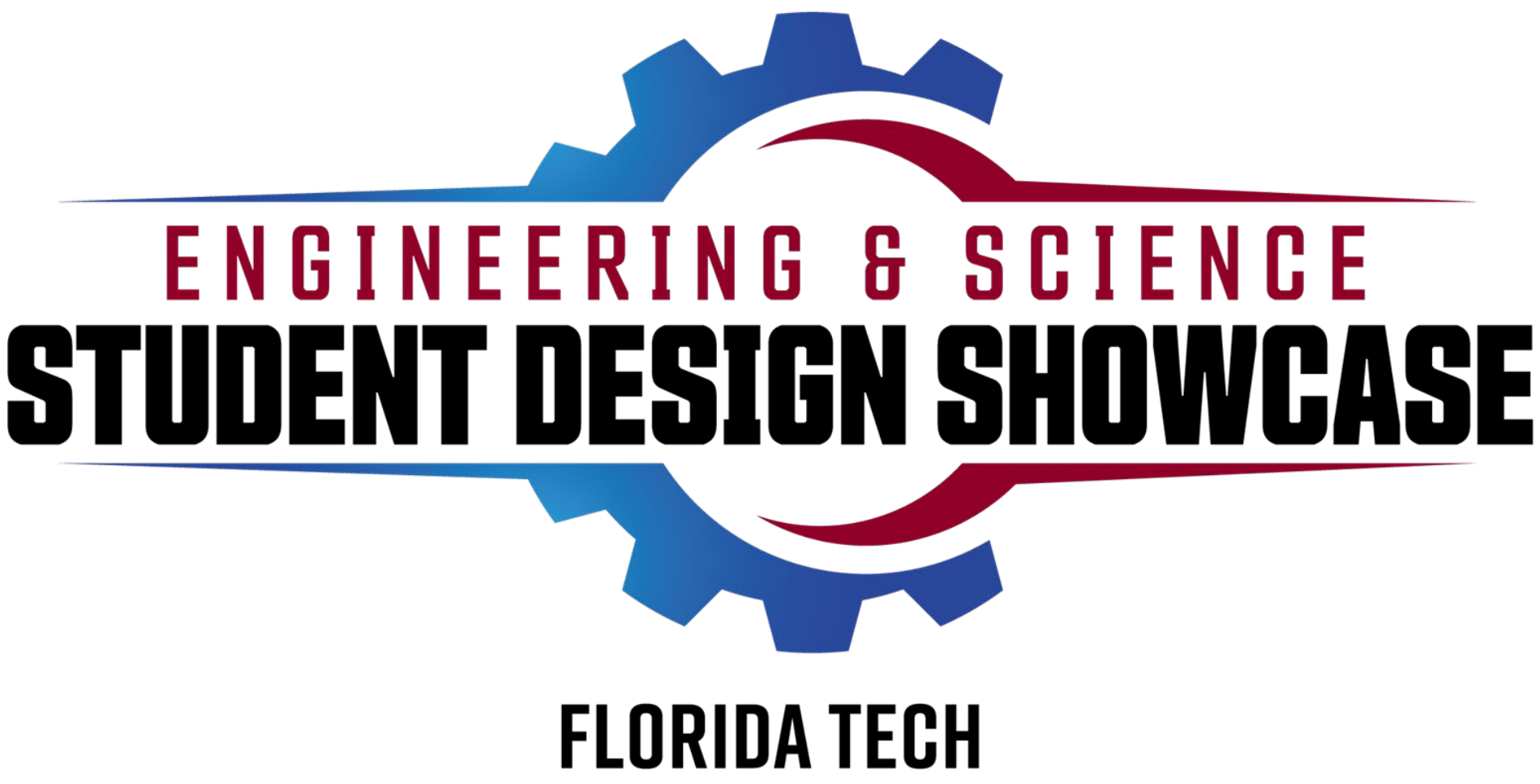




Cow Excrement for Renewable Energy Supplies

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Abstract

On March 27th, 2026, President Trump announced the finalization of the Renewable Fuel Standard “Set 2”, which establishes a 60% increase in the requirement for renewable fuels from 2025 to 2026 & 2027. AIChE issued the 2026 Senior Design Challenge to design a renewable natural gas plant for a 12-Farm Dairy Co-Op in Green Bay Wisconsin. This design integrates the latest cutting-edge technologies to sustainably optimize NPV.

Novelty

- Direct NG Pipeline Injection
- High-Rate Mixed Plug Flow Digester
- Microalgae Photobioreactor
- Federal- Cellulosic D3-RINs
- High-Rate Fixed-Film Digesters
- State- LCFS Credits

Economics

