



# OVERVIEW

- Who is Nelson Engineering?
- Project Work
- Scalability
- Future Trends & Investments

# WHO IS NELSON ENGINEERING?



## Biotech EPCC

The Nelson Engineering team provides **custom, turnkey solutions** for the biotech industry by cultivating meaningful **relationships** and championing the **pioneering spirit**.

# THE NELSON TEAM



- Diverse Industry Experience
  - Biotech
  - Biochemical
  - Ag Processing
  - Agtech
  - Ethanol
  - Bioplastics
  - Advanced Biofuels
  - Algae
  - Biomass

# PROJECT WORK

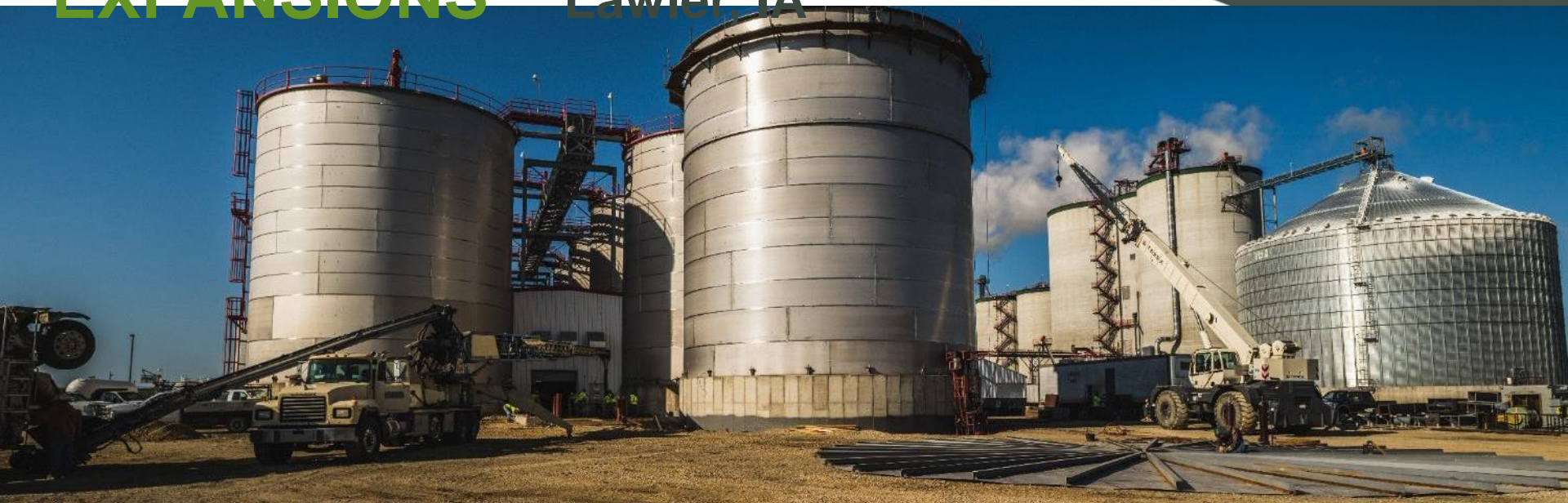
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# ETHANOL PLANT EXPANSIONS

Lawler, IA

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Fermentor, Liq Tank, Storage Tank & Rail Load Out Additions

Project Duration 9 months

# ETHANOL PLANT EXPANSIONS

Lawler, IA



- Process Design
- Reinforced Concrete Design
- Field-Erected Tank Design
- Equipment Sizing, Specification, & Procurement
- Drafting & 3D Modeling
- General Contracting
- Start-Up Support

# HYDROLYSIS UTILIZATION™ (HU™)

- Reutilization of existing fermentation capital lost through hydrolysis and carbon dioxide removal
- Increased Ethanol Production
- Energy Savings
- Ethanol recapture and water reuse
- ROI of less than one year



# CELLERATE™ Galva, IA

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Cellulosic Ethanol Plant  
Project Duration 13 months

*First operational corn kernel fiber cellulosic ethanol plant*

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# CELLERATE™

## Galva, IA

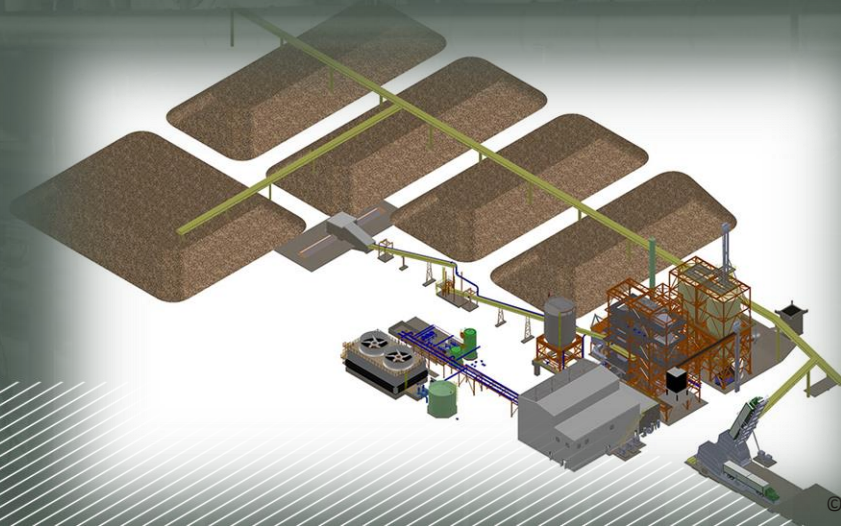
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Two Million Gallons Cellulosic Ethanol per year  
RFA 2015 Industry Award

# BIOMASS TO ENERGY

- Lone, CA – 7 month project duration
- Retrofit of an abandoned 18 megawatt power plant to generate renewable energy from biomass



# RENEWABLE JET FUEL

- West Lafayette, IN – 9 month duration
- Process scale-up and construction of a modular skid to demonstrate a proprietary technology that converts biomass and renewable carbon sources to aviation fuel



# SCALABLE VS. NOT SCALABLE

- Technology
- Waste Streams
- Market

# LOOKING TO THE FUTURE

- Value-added products, coproducts, and product diversification
- “Green” revolution of petrochemical facilities

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