

Renewables



EMPOWERING EPCM

TWD is your solution partner; whether commercializing a new technology, building a new site or optimizing an existing facility.

Building and operating renewable facilities commands a broad range of expertise. From project development and regulatory requirements to plant optimization and operation efficiency, TWD brings experience, dedication and solutions to your business.

FUEL

Successfully producing high quality renewable fuel requires operational consistency, high conversion yields and strong operational controls.

With TWD's experience partnering with ethanol and biodiesel producers, in addition to the petroleum and chemical industries, we can provide the best solutions; from start to finish, big or small. No matter the feedstock (corn, wheat, fats and oils or cellulose), TWD has helped their clients improve various conversion pathways to liquid fuels:

- Ethanol
- Biodiesel
- Renewable Diesel

BIOGAS & RENEWABLE POWER

TWD carries significant experience in the production of syngas, converting to natural gas, electricity, chemicals or liquid fuels, with a particular focus on emerging technologies to convert low cost, abundant resources such as crop residues, waste wood and organic by-product and waste streams.

- Crop Residues:
Rice hulls, stover, bagasse, potatoes, beets, grasses
- Wood Waste:
Sawdust, wood chips, forest waste
- Organic By-Products and Waste:
Municipal solid waste (MSW), food waste, grease, manure

SERVICES

- Project Development
 - Independent technology assessment
 - Technology review and selection
 - Business economics
 - Capital cost estimates
- Design and Construction
 - Project management
 - Process design
 - 3-D plant layout and optimization
 - Engineering, Procurement and Construction Management (EPCM)
 - Regulatory and environmental permitting
 - Scheduling
 - Cost Control
- Optimization
 - Process reviews and modeling
 - Conversion optimization
 - Biomass handling and preparation
 - Co-product quality and applications
 - Distillation (atmospheric, vacuum)

INDUSTRIES

- Ethanol
 - Milling (wet and dry)
 - Starch conversion
 - Fermentation (batch and continuous)
 - Dehydration
 - Drying
 - Optimization of ethanol use (fuels, beverage, industrial)
 - Optimization of co-products (wet/dried distillers grains with or without solubles, carbon dioxide)
 - Enzyme hydrolysis
 - Ethanol synthesis
 - Oil extraction
- Biodiesel & Renewable Diesel
 - Feedstock pretreatment
 - Catalytic conversion
 - Fisher-Tropsch synthesis
 - Distillation
- Gasification
- Power Generation
- Natural gas upgrading





EMPOWERING EPCM

TWD Technologies is a leading management engineering consulting company providing project development, execution and specialty engineering services for the industrial world.

Our team is dedicated to providing clients with effective business and technical solutions through exceptional levels of service, innovation and flexibility.

It is our mission to be the team of choice that delivers technical business solutions in industry for front end project development, design engineering, optimization, and risk management.

CALGARY

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SARNIA

TORONTO

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