



LEE ENTERPRISES CONSULTING, INC.
World's Premier Bioeconomy Consulting Group

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PRIMARY AREAS OF EXPERTISE AT LEE ENTERPRISES CONSULTING, INC.

Lee Enterprises Consulting is the world's premier bioeconomy consulting group, with over 100 highly qualified experts serving in these areas. For a full list of all expertise, visit our website.

Feedstock



- Agricultural Products and Waste
- Algae
- Biogas
- Biomass
- Cellulosic
- CO2
- Construction Waste
- Energy Crops
- Feedstock Analysis
- Feedstock Hedging/Risk Management
- Fermentation Waste
- Food Waste
- Forest Products
- Glycerin

- Hemp
- Landfill Waste
- Lignin
- Methane
- Municipal Solid Waste (MSW)
- Palm Waste
- Plastics/Polymers
- Pulp & Paper
- Railroad Ties
- Recycled Plastics
- Rubber Crops
- Sludge
- Solid Recovered Fuels

Biofuels



- Advanced Biofuels
- Aviation/Jet Fuels
- Biobutanol
- Biocoal
- Biodiesel
- Biogas
- Biomass Power
- Cellulosic Ethanol
- Combined Heat & Power (CHP)

- Ethanol
- Fuel Additives
- Isobutanol
- Landfill Gas
- Pyrolysis Oil
- Renewable Diesel
- Renewable Natural Gas (RNG)
- Syngas
- Wood Pellets

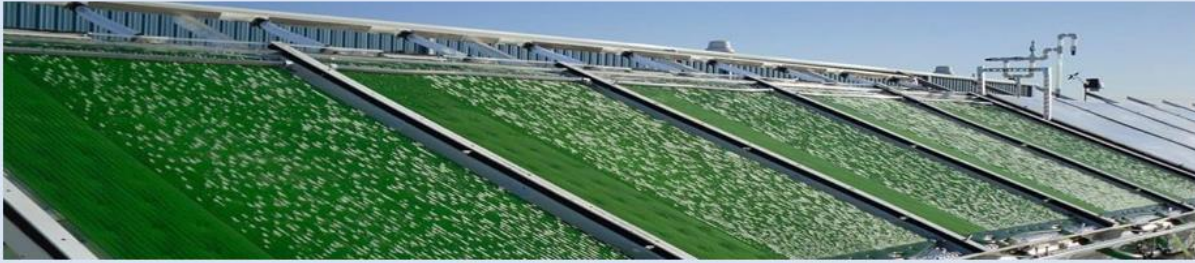
Biomaterials & Biochemicals



- Activated Carbon
- Biochar
- Biomass to Chemicals
- Biopharmaceuticals
- Bioplastics/Polymers
- Biosynthetic Materials
- Cannabinoids
- Enzymes/Peptides
- Food Products
- Glycerin

- Industrial Chemicals
- Latex/Rubber
- Microbiome
- Nanocarbons
- Nutraceuticals
- Plastics/Plastic Waste
- Reclaimed Methanol
- Solvents
- Synthetic Biology Commercialization

Technologies



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| <ul style="list-style-type: none">• Activation – Thermal & Chemical• Agitation Systems• Anaerobic Digestion• Aquaculture• Biomass Technologies• Bioreactors• Carbon Capture & Storage• Catalysis• Direct Combustion• Emerging Technologies• Enzyme Technologies• Fermentation• Fischer-Tropsch• Fluidization & Process Design• Gas to Liquids (GTL) | <ul style="list-style-type: none">• Gasification• Hydrothermal Carbonization• Landfill & Waste Management• Municipal Solid Waste (MSW) Treatment• Pelletization• Plastics Recycling• Pyrolysis/Carbonization• Syngas Technology• Technology Commercialization• Technology Development• Torrefaction• Wastewater Treatment Technology• Waste to Energy (WTE) Technology• Waste to Gas (WTG) Technology• Water Treatment Technology |
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Legal & Regulatory



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| <ul style="list-style-type: none">• Attestations• Compliance Reporting• Contract Review & Negotiation• Due Diligence• Environmental Compliance• EPA Compliance• Expert Witness Services• Grant Writing | <ul style="list-style-type: none">• Insurance• Intellectual Property (IP)• Life Cycle Analysis• Low Carbon Fuel Standard (LCFS)• OSHA Compliance• Permitting• Taxes & Tax Planning• Wildlife Habitat Matters |
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Technical & Engineering



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| <ul style="list-style-type: none">• Anaerobic Digestion & Composting• Aseptic Design• Aspen Simulation• Biomass Supply Chain Analysis• BQ 9000 Preparation• Catalytic Valorization• Data Analysis (Lab and Process)• DOE Merit Reviews• Downstream Processes• Efficiency Analysis• Feedstock Evaluation | <ul style="list-style-type: none">• Fermenter Design• Laboratory Testing• Operational Audits Pilot Plant Design• Plant Engineering, & Design• Process Simulation• Product Formulation• Quality Assurance• Reactor Design• Recipe Management Assistance• Solid State Fermentation• Technology Assessment |
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Specialty Services



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| <ul style="list-style-type: none">• Alternative Proteins• Beverage Fermentation• Bio-based Product Development• Carbon Credits• Carbon Intensity (CI) Studies• Cell Based Meats• Equipment Sales• Executive Recruiting• Experimental Validations• Expert Witness Services• Formulation Chemistry• FSMA Compliance• Grant Writing• Insurance• Investor Services• IP Strategy | <ul style="list-style-type: none">• Life Cycle Analysis (LCA)• Lipid Analysis• Litigation Support• Low Carbon Fuel Standard (LCFS)• Microbial Fermentation• Odor Control• Organic Synthesis• Pharma Process/GMP• Plant Operations• Plant Sales• Railcar Leasing• RIN Evaluation & Marketing• Risk Analysis (FMEA, HAZOP)• Supply Chain Assessment• Techno-Economic Analysis (TEA)• Wildlife Habitat Matters |
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Business & Financial



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| <ul style="list-style-type: none">• Accounting & Auditing• Appraisals (Plants & Equipment)• Asset Management & Disposal• Biomass Marketing• Budgeting (CAPEX & OPEX)• Business Plan Development & Review• Capital Structuring• Competitor Analysis• Due Diligence• Feasibility Studies• Feedstock Procurement & Risk Management | <ul style="list-style-type: none">• Financial Modeling• Financial Packaging & Assistance• Loan Guarantee• Market Assessment• Offtake (Fuel Sales)• Pro Forma Development & Review• Project Financing• RFP Rating & Ranking Services• Strategic Planning• Techno Economic Analysis• Valuations (Operational & Closed Facilities) |
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Project Management



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| <ul style="list-style-type: none">• Commercial Readiness Analysis• Construction Oversight & Management• Electric Substation & Interconnection• Environmental• EPC Contract Management• Interim Executive Leadership• Interim Plant Management• Investor's Representative• Logistics• Manufacturing Selection & Oversight• Operational Planning | <ul style="list-style-type: none">• Owner's Representative• Permitting Strategy• Pilot Plant Design & Manufacture• Plant Construction & Retrofit• Process Safety & Management• Project Planning• Regulatory Review• Risk Assessment & Management• Safety Training• Site Selection• Start Up Assistance |
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Lee Enterprises Consulting Engagement Approach

Lee Enterprises Consulting has over 100 subject matter experts. Most are PhDs, MBAs, scientists, engineers, financial experts, and attorneys, and many are former C-level executives with many years of experience at major companies. Our experts are selected as the top talent in their fields worldwide.

We have handled a broad range of projects. At one end of the spectrum are those requiring only a few hours of our expert's time. At the other end are large projects involving multiple experts that may last a longtime. While we don't have a "standard fee", our expert's rates generally range from \$150 - \$450/hour depending on the expertise, type of engagement, and project duration. Some projects are performed on a flat fee basis, while others are done on an hourly, weekly, or monthly basis.

- Open Ended Engagements: Some projects, for example serving as a representative for an owner or investor, or as an expert witness in litigation, are open ended. Budgets for these are often impossible to set initially and evolve with the progress of the engagement. For some of these, we work against a retainer with the client directing our efforts.
- Weekly or Monthly Engagements: Some projects are done on a weekly or monthly retainer basis, with an agreed cap on cost per period.
- Levels of Engagement: We are often engaged to assess the feasibility of a potential project. These generally fall into one of three categories:
 - High Level Review: Requiring high-level review of new technology potential or a new build, typically including an overview of regulatory and supply issues, and a preliminary economic study, normally range from \$5,000 - \$30,000.
 - Detailed Focus: Requiring more detail on the technical and financial aspects, with assessment of operational data, capital & operating costs, *pro forma* development, environmental issues, LCFS/RINS credits, potential partnering relationships, and occasionally site assessments, normally range from \$25,000 - \$75,000.
 - Full Commercial Projects: Encompassing site selection, supply chain assessment, feedstock handling, process design and layout, product purification and off-take, permitting, waste stream handling, site development, EPC engagement, etc. can run in the \$75,000 - \$200,000 range.
- Stage Gate Approach: We often conduct projects in stages, allowing clients to select specific tasks to be done at each stage, evaluate milestones, and make decisions at each stage.

We work with the client to establish the engagement that best meets their needs and budget as we know that the key to successful projects begins with everyone having a clear understanding of the timing, expertise needed, and deliverables sought. Our benefit in large projects is the ability to provide interdisciplinary teams with a single point of contact. In smaller projects, our size enables us to find the right expert for any project. Call (1+ (501) 833-8511) or [email](#) for more information.

