Statement of Qualifications

BBI Project Development
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BBI Project Development

BBI Project Development is a technology-based engineering and consulting services company specializing in assisting clients in the assessment and development of biomass-based renewable energy and biotechnology projects worldwide. Since its inception in 1995, BBI has completed more than 335 projects in the renewable energy and biotechnology sectors. Members of the BBI Project Development team have long-established reputations within the biomass, biofuels and bioenergy sectors. We have the experience and expertise to help make your project a success.

BBI’s technical team have focused and honed their skills on the research, development, deployment and commercialization of renewable energy projects. From research of microorganisms, enzymes, anaerobic digestion, cellulosic-based biofuels and biomass power, to project management of multi-million dollar projects, BBI provides to the novice entrant, as well as to the experienced project owner, the best of services available in the renewable energy industry.

Services

BBI provides clients accurate and unbiased analyses of renewable energy and biotechnology projects. Based on the established credentials of our team members in the bioenergy sector, BBI is well-positioned to support you in the development and deployment of emergent as well as established technologies. Your project can benefit from BBI’s expertise in engineering and feasibility studies, process design, technology development, technology deployment, and project development. We also provide assistance to clients in raising equity and debt and can help you reach financial close for your project.

BBI assists clients worldwide in the development of biofuels and biomass-based alternative energy projects. Services we provide include:

- **Project Development Services**
  - Feasibility Study
  - Business Plan
  - Project Management
  - Project Financing Plan
  - Feedstock Procurement Plan
  - Product and Co-product Marketing Plans
  - Site Selection and Site Development
  - EPC Contractor Selection and Contract Negotiations
  - Coordination of Permitting
  - Strategy and Assistance for Raising Equity
  - Assistance in Obtaining Debt Financing
  - Economic impact analysis

- **Engineering Studies**
  - Conceptual and Preliminary Designs
  - Technology Due Diligence
  - Process Improvement
  - Process Flow Diagrams (PFDs)
  - Piping and Instrument Diagrams (P&IDs)
  - Mass and Energy Balance
  - Capital and Operating Cost Estimates
  - Techno-economic modeling
  - Risk Assessment
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- **Feasibility Studies**
  - Site Selection
  - Feedstock Analysis
  - Market Analysis for Products and Co-products
  - Construction costs
  - Owner’s costs
  - Operating costs
  - Financial Analysis and Sensitivity Studies
  - Conclusions and Recommendations

- **Other Services**
  - Bank Engineer
  - Independent Engineer for project and technology due diligence
  - Plant technology upgrades and evaluation of alternative products
  - Biomass resource assessments
  - Renewable fuels supply chain systems analysis
  - Market analyses
  - Development of business strategies and business plans
  - Development of financial strategies and financial analyses
  - Economic impact analysis
  - Expert witness services for mediation, arbitration and legal actions

**BBI Project Development Management Team**

**Joe Bryan, Chief Executive Officer**

Joe Bryan joined BBI International in 1999 as Associate Editor of the *The Energy Independent*, now *Ethanol Producer Magazine*. In 2010 Joe became CEO and President of BBI International. He has successfully managed the growth of BBI which produces globally recognized bioenergy events and trade magazines. In addition to the International Biomass Conference & Expo and its allied regional events, BBI owns and operates the largest, longest-running ethanol conference in the world -- the International Fuel Ethanol Workshop & Expo (FEW), as well as the International Biorefining Conference & Trade Show. BBI publishes *Ethanol Producer Magazine*, *Biorefining Magazine*, *Biomass Power & Thermal*, *Biodiesel Magazine*, *Distillers Grains Production & Markets*, *Pellet Mill Magazine*, and *Algae Technology & Business* as well as a number of ancillary products including maps, directories, e-newsletters and other web-based industry resources. As CEO of BBI Consulting Services, Joe brings a wealth of industry knowledge and experience to the team.

**Mark Yancey, Vice President**

As Vice President of BBI Project Development and previous CEO of NEAtech LLC, Mark oversees the development of biomass-based renewable energy and biotechnology projects, as well as engineering and consulting services for BBI. Since 2001 BBI Project Development has completed over 250 projects ranging from engineering and feasibility studies to more complex cellulosic biofuel technical and business analyses. Mark’s team completed project development from concept to construction for six ethanol plants and one biodiesel plant in the US and Canada representing over 300 million annual gallons of biofuels production and over $500 million in capital investment. All of these projects are in operation today. The BBI Project Development team under the leadership of Mark has contributed to the development of 50 of the approximately 200 ethanol plants in the US. Mark has over 35 years of experience in renewable energy and has a BS degree in Chemical Engineering from Stanford University.
BBI Experience and Expertise

Project Development

BBI’s technical team is experienced in moving a project from conception through startup, assisting many clients in project development and ultimately getting the project to financial closure. BBI has completed project development from concept to commercial operation for six ethanol plants and one biodiesel plant in the US and Canada representing over 375 million annual gallons of biofuels production. BBI has contributed to the development of 50 of the approximately 200 ethanol plants in the US. The following are operating biofuel plants developed by BBI on behalf of our clients:

- Arkalon Energy, LLC - 110 million gallon per year (mmgy) ethanol plant in Liberal, Kansas
- Bonanza BioEnergy, LLC - 55 mmgy ethanol plant in Garden City, Kansas
- Western New York Energy, LLC - 50 mmgy ethanol plant in Shelby, New York
- Front Range Energy, LLC - 48 mmgy ethanol plant in Windsor, Colorado
- Prairie Horizon Agri-Energy, LLC - 40 mmgy ethanol plant in Phillipsburg, Kansas
- IGPC Ethanol Inc. - 42 mmgy ethanol plant in Aylmer, Ontario, Canada
- Prairie Pride Inc. - 30 mmgy biodiesel plant in Deerfield, Missouri

BBI has extensive international experience having conducted engineering and feasibility studies for clients in Mexico, Ecuador, Ghana, Indonesia, Philippines, Ukraine, Canada, Armenia and Australia. BBI has experience with the following biofuel feedstocks:

- Corn
- Sugarcane and sugarcane molasses
- Sugar beets and sugar beet molasses
- Grain sorghum
- Sweet sorghum
- Barley
- Wheat
- Potato waste
- Triticale
- Lignocellulosic feedstocks
- Agricultural residues
- Fruit processing waste
- Municipal solid waste
- Spent brewers grain

Advanced Biofuels Technologies and Technology Assessments

BBI’s technical team has over 50 years of combined “hands on” experience in the conversion of lignocellulosic biomass to fuels, chemicals and power including extensive biomass research and process development experience. The technical experts of BBI have performed numerous cellulosic biofuels engineering and risk assessment studies and technology reviews that have considered various feedstocks as well as different technology applications. BBI’s technical team has also vetted numerous technologies for private investors. From feedstock collection and composition to fermentation and process operating parameters, BBI has a comprehensive understanding of the infrastructure and unit operation requirements.
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Biodiesel Projects
BBI has experience in biodiesel engineering studies for projects in Colorado, Iowa, Maryland, Minnesota, Missouri, Nebraska, Oregon, Pennsylvania, South Dakota, Louisiana, South Carolina, Texas, and Washington. Internationally, BBI’s experience includes biodiesel engineering studies in Canada, Indonesia, Singapore and Colombia. BBI has developed a database of biodiesel production technologies and market data similar to our ethanol database.

Feedstocks for biodiesel projects include:
- Soybeans and soybean oil
- Palm oil
- Corn oil
- Canola
- Mustard seeds
- Coconut oil
- Rapeseeds
- Microalgae and Algae
- Fats, oils, and grease
- Various recycled feedstocks
- Various “waste” feedstocks

Biomass Power and Anaerobic Digestion
Construction of new biomass power projects continues worldwide. BBI’s technical experts provide feasibility studies and project development for new, biomass power facilities as well as biomass pellet mill facilities. In many countries power generation through anaerobic digestion addresses waste management and power needs and its application continues to expand. BBI’s experts are able to perform engineering studies, perform technology assessments and evaluate the economic impacts of these projects.

Process Engineering
At BBI we work with clients to develop process design packages for the production of fuels, feed, energy, and chemicals from biomass. Our company brings over 40 years combined experience in the design, demonstration, and deployment of fuel ethanol projects and biomass utilization. Our focus is developing process design packages for biomass utilization and renewable energy products. Our core strengths are in biotechnology, fermentation, feedstock handling and preparation, pretreatment, enzymatic and thermo-chemical hydrolysis, sterilization, solids separations, distillation, evaporation and product purification. These strengths include most unit operations common to the biomass-based renewable energy technologies such as anaerobic digestion, landfill gas recovery, biomass power/cogeneration and chemical process industries.
Emerging Technologies

Based on the established credentials of the technical experts at BBI, the company is well positioned to analyze and develop emerging renewable energy processes and projects. Projects include:

- Evaluation of front-end fractionation integration for biofuels facilities
- Renewable Identification Number (RIN) valuation analysis
- Numerous technology assessment and feasibility studies for cellulosic biofuels technologies
- Integration of anaerobic digestion of feedlot manure with ethanol plants in California, New Mexico, Canada and Australia
- Biomass energy study encompassing California and Southern Oregon for the Ore-Cal RC&D
- Biomass resource assessment and biomass ethanol feasibility study for the Oregon Energy Office.
- Cellulosic ethanol study for the State of Maine
- Coal and biomass co-firing study for the National Renewable Energy Laboratory

Additional Information

Additional information regarding BBI Project Development is available on our web site at: www.bbiinternational.com

Resumes

Resumes for key Project Development staff and associates follow.
Mark A. Yancey  
Vice President, Project Development  
BBI International, Inc.  
10585 West Beloit Place, Denver, CO 80227  
Office: (701) 738-4924; Cell: (303) 906-6234; Fax: (701) 746-5367  
Email: myancey@bbiinternational.com

Qualifications
Mark is the Vice President of Project Development at BBI International, a renewable energy consulting and media company specializing in the bioenergy, biomass, and biofuels industries. Mark has over 30 years of experience in the design and development of renewable energy projects including biomass power, CHP, geothermal power, waste incineration, anaerobic digestion, fuel ethanol, butanol, and biodiesel projects. Under Mark’s leadership BBI International provides engineering services, technology assessments, feasibility studies, business and marketing plans, bioenergy and biofuels policy analysis, and project development services for renewable energy projects worldwide.

Education
B.S. Chemical Engineering, Stanford University, 1977

Employment History

**BBI International, Vice President, November 2013 – present**
Mark has recently rejoined BBI as the VP of Project Development, a position he held from 2001 to 2009. Mark and the BBI Consulting Team assist clients in the development of renewable energy and biotechnology projects worldwide. Areas of expertise include technical analysis and due diligence for renewable energy technologies, feasibility studies, business plans, financial modeling and financial analysis, market studies, expert witness for litigation and arbitration, and project development services.

**NEAtech, LLC, CEO and President, January 2009 – November 2013**
Mark was a founder, CEO and President of NEAtech, LLC. At NEAtech Mark assisted government and private sector clients in the evaluation and development of advanced biofuels technologies and biomass based alternative energy projects worldwide. Mark also served as a technical advisor to the U.S. Department of Energy, the U.S. Department of Agriculture, and Sustainable Development Technology Canada.

**BBI BioVentures, LLC, CEO, June 2008 – January 2009**
As CEO of BBI BioVentures, LLC, a subsidiary of BBI International created in 2008 to commercialize BBI’s cellulosic ethanol technologies, Mark was responsible for all aspects of the company startup and development of the company’s strategic plan. Mark was responsible for carrying out BBI BioVentures’ multi-plant strategy for the development and operation of several cellulose-based ethanol plants utilizing spent brewers grains for the production of ethanol and a high protein animal feed by-product.

**BBI International, Vice President of Project Development, March 2001 – January 2009**
As vice president of BBI’s Project Development Division, Mark managed all renewable energy project development activities for BBI. Mark grew the Project Development Division from two people in 2001 to over 20 dedicated employees in 2008. BBI’s Project Development Division was recognized as one of the most successful and knowledgeable biofuels consulting organizations in the U.S. under Mark’s leadership. Mark’s team performed feasibility studies, prepared and executed business plans, conducted
feedstock resource assessments, performed lender due diligence and construction progress inspections, and negotiated offtake and design/build contracts for approximately 25% of the U.S. biofuels industry. While at BBI, Mark’s team completed over 250 projects ranging from feasibility studies to complete project development services. Mark’s team completed project development from concept to construction for six ethanol plants and one biodiesel plant in the U.S. and Canada representing over 300 million annual gallons of biofuels production.

**National Renewable Energy Laboratory, Senior Project Leader, 1992 – 2001**

At NREL Mark held positions as project manager and team leader for the Biofuels Industrial Partnerships Team, the NREL/Coors CRADA Project and the Biofuels Program Management and Operations Team. Mark’s NREL responsibilities included the establishment of industrial partnerships for the Biofuels Program and technical and economic evaluation of cellulosic ethanol commercialization projects including the evaluation of the conversion of wood, rice straw, corn stover, sugarcane bagasse and spent brewers grain to ethanol and biomass power. During his nine years at NREL, Mark managed a wide variety of projects including the technical and economic evaluation of converting forest residues, wood waste, wheat straw, rice straw and spent brewers grain to ethanol and power.

Mr. Yancey was also the NREL project manager for the Gridley, California rice straw to ethanol and power project and project manager for the research and development project with Coors for the conversion of spent brewers grain to ethanol. Mr. Yancey has a detailed understanding of ethanol production from both starch and sugar based feedstocks as well as the conversion of cellulosic feedstocks to fuel and power. Mark also held the position of Biofuels Program Deputy Program Manager for two years. Other responsibilities included Biofuels Program planning, monitoring and reporting to the Department of Energy. Mark also developed NREL annual operating plans, fieldwork proposals, cost plans, capital equipment acquisition plans, human resources plan, and Biofuels Program milestones.

**United Engineers and Constructors, Senior Process Engineer, 1989 – 1992**

At UE&C Mark developed process designs and specifications for hazardous waste incineration plants and natural gas processing plants. Mark also developed operating manuals for gas processing plants.

**Pacific Gas and Electric Company, Senior Chemical Engineer, 1977 – 1989**

At PG&E Mark designed, developed and demonstrated new and innovative hydrogen sulfide abatement systems for geothermal power plants. He also designed geothermal power plant sulfur removal systems and power plant combustion and controls systems. Mark also held positions as Chemical Group Leader at the Geysers Power Plant and at Moss Landing Power Plant.

**Awards**

Chairman's Award, Pacific Gas and Electric Company, 1988
Chairman's Award, Honorable Mention, Pacific Gas and Electric Company, 1987
DOE Customer Recognition Award for the Gridley Rice Straw Ethanol Project, 1998
Dr. Arthur E. Wiselogel
Senior Biomass Feedstock and Bioenergy Specialist
246 Zang Street, Lakewood, CO 80228
Office: (303) 359-7823; Fax: (303) 648-5540

Qualifications
Art Wiselogel has 23 years experience working on biofuels, biomass power, and biomass feedstocks. In addition, he worked in the forestry and agriculture sector as well as in academia. Dr. Wiselogel has served as a project manager, project developer, personnel manager, scientist, and analyst. He currently provides project management, biomass feedstock, and technical bioenergy support to the Department of Energy’s BioEnergy Technology Office (BETO). He is also associated with BBI International Consulting and is an independent bioenergy consultant.

Prior to supporting the Department of Energy’s Bioenergy Program, Art was an independent bioenergy consultant on retainer to Antares Group as a Senior Scientist, served as a Senior Manager at BBI International developing ethanol projects, as a Project Manager on a contract with the US Department of Energy’s Golden Field Office, as a lead scientist on biomass feedstock research, Feedstock Program Manager, and Biofuels Project Coordinator at the National Renewable Energy Laboratory. He has also served as a US representative to the International Energy Association. Art has worked as a project coordinator, tree physiologist, forest geneticist, and forester at the University of Georgia, Texas A&M University, Texas Forest Service, and Westvaco Corp.

Education
Ph.D., Texas A&M University, Forest Genetics and Plant Breeding, 1985
M.S., Oklahoma State University, Agriculture, 1981
B.S., Mississippi State University, Forest Management, 1979

Employment History
2008 – Present Consultant, President/CEO, A Wise Renewable Energy Consulting
Art is the sole proprietor of AWREC. He uses AWREC to provide bioenergy consulting services as an Associate and independent contractor.

2011 – Present, Principal Biomass Engineer II
Art provides project management, biomass feedstock production, biomass feedstock interface, and bioenergy technical support services to the BioEnergy Technology Office of the DOE.

2009 – 2011, Senior Scientist, Antares Group
Art provides support to bioenergy and biomass power projects under contract by Antares Group. Art has provided services such as a Bank Representative, Biomass Power and Biofuels Project Development, Biofuels Market Assessment, Greenhouse Gas Emissions Monitoring Plan Development, Lignocellulosic Feedstock Handling and Conversion Technology Consulting. He has also been a biomass resource analyst on projects using Agricultural Residues, Forest Resources, Herbaceous Energy Crops Algae, and Woody Energy Crops.

2004 – 2008, Senior Manager/Project Manager, BBI International
Art worked to develop ethanol, biodiesel, and Greenhouse Gas Assessment project and served in several management and technology capacities at BBI.

Manager of Business Development
Manager of Community Initiative to Improve Energy Sustainability
Manager of Technical Studies

Art was the Project Manager for Integrated Resource Technologies (IRT) Support and Technical Services contract with the Department of Energy’s (DOE) Golden Field Office (GO) and the Boston, Chicago, Philadelphia, and Seattle Regional Offices. Supervise a staff of 60 at five locations across the United States (Boston, Philadelphia, Chicago, Golden, and Seattle).

1991-2001, Biofuels Program Coordinator/Terrestrial Biomass Feedstock Program
Art served in several capacities while at the National Renewable Energy Laboratory. All his work was funded by the DOE Biofuels and Biomass Power Programs. He conducted Research on feedstock logistics and interface for biochemical, thermochemical, and biomass power applications. He also performed biomass resource assessments, and served as a DOE representative on IEA Activities involving biomass resources and biomass feedstock interface.

1987 – 1991, Project Coordinator, University of Georgia
Art was a non-tenure faculty member in the School of Forest Science where he conducted research on forest ecosystem responses to air and water pollution.

1984 – 1987, Silviculturist II/Research Associate/Lecturer, Texas A&M University
Art conduct research on forest tree breeding schemes and tree responses to air pollution. He also taught courses in Dendrology, forest genetics, tree physiology, and intro to forestry.

1979, Forester, Westvaco Corporation
Art’s first job in the Forestry sector was as a procurement forester who also assisted with the management of research plots of fast growing tree species for use as pulp and energy.
Jeff Kistner
Senior Financial Advisor
21034 Arbor Court, Omaha, NE 68022
Office: (402) 490-3314

Qualifications
Jeff Kistner provides CFO services to agribusiness and renewable energy companies. His services include: forecasting operational performance and financials, enhancing cash flow, liquidity requirements, capital structures, and increased equity valuations. Kistner understands there are many different solutions designed to help companies achieve success. This knowledge is from working in the industry as a lender for 19 years and as an industry consultant for five years. Jeff’s expertise is in the collection, monitoring and analyzing information for best business practices.

Kistner was raised on a family farm in southeast Nebraska and graduated in 1986 with a Bachelors of Science in Agricultural Economics from the University of Nebraska. In 1991 he earned his MBA in Finance from Webster University in St. Louis, MO. Kistner has 19 years of banking experience and he concluded his banking career at CoBank, one of the largest lenders to the agribusiness and renewable energy industry in the US. He then worked 4 years at BBI International focusing on project development and management of ethanol projects in the US and internationally. At BBI, he had a strong influence in business economics, equity valuations and capital structures from early stage to operating renewable energy companies.
Kyle J. Althoff
Senior Project Manager
4255 43rd Ave S., Fargo, ND 58104
(303) 910-6052

Professional Experience

BBI International, Inc., Associate, September 2013 to present
- Strategic, financial, and operational analysis for agriculture, food and renewable energy companies.
- Evaluated financial distribution structure for company in the energy production sector
- Constructed financial modeling for business projections to support equity solicitation in the alternative energy industry
- Comprehensive storage research project related to cellulosic biomass to provide insight on the opportunities and limitations of a particular feedstock for conversion into bio-power, biofuel, and bio-gas

DuPont – Cellulosic Ethanol, Supply Chain Manager, January 2009 to August 2013
- Initiated, developed, and managed the feedstock strategy for commercializing technology to convert biomass including corn stover and switchgrass into cellulosic ethanol. This strategy addresses the challenges of creating new feedstock supply chains within agribusiness while balancing the functional & risk parameters required to attract industrial customers.
- Managed feedstock supply chain with operating budget including leadership of internal team which devised project goals, collected input from more than 25 internal associates, deployed farmer supply contracts 28,000 acres, solicited 70 pieces of agricultural equipment and operating service bids from various contractors, and directed partnerships with key research institutions.
- Engaged and enhanced relationships with customers and potential licensees by managing contracts for feedstock services and providing in-depth understanding of innovative supply chain approaches.
- Management of 10 team members, as well as direct and indirect oversight of seasonal contractors, vendors and research institution during harvest to successfully operate and develop corn stover feedstock supply chain.
- Defined and coordinated delivery of in-spec biomass to demo-scale cellulosic ethanol conversion plant. Worked with feedstock supply partners, parent R&D organizations and JV management to ensure feedstock met desired specifications and research requirements.
- Supervised the initial cellulosic ethanol plant siting strategy including market analysis and initiating business development with potential partners at 12 optimal locations
- Coordinated feedstock research and development priorities with technology team including assessing emerging technologies and biomass production practices, and management of the Intellectual Property (IP) portfolio for feedstock supply chain.
- Led the development of the first round grant application that was successful in securing $2.4 million in funding to demonstrate the potential for new biomass production, harvesting, and transportation

BBI International, Inc., Project Manager, August 2006 to January 2009
- Project manager for a $150M wheat-based dry mill ethanol plant development effort for an international client from concept to construction; this included site selection, market research, environmental analysis and permitting, contract negotiation, utility analysis, and raising equity.
- Served as lead contact to contractors, environmental assessment, marketers, governmental officials, and other vendors on client’s project development effort
• Assisted 4 clients in the development and delivery of equity solicitation materials and presentations including private placement memorandums, SB2 filings (public) and offering memorandum (Canada)
• Generated financial projections including 10-year forecasts, NPV assessments, and multi-variable sensitivity analysis for over 15 clients in the renewable energy industry using 150 inputs/assumptions. Created feedstock and biofuel price forecasting models utilizing prevailing supply/demand tables, exchange rate projections, and other long-term assumptions
• Represented employer when interfacing with clients and potential customers at board meetings, equity presentations, conferences, and other industry events. Presented to audiences ranging from 5 to 500 including such major events as the Fuel Ethanol Workshop, Renewable Energy Workshop, Ethanol 2008 (Australia), and Biofuels Workshop
• Performed due diligence assessments for 2 biofuel investment opportunities
• Coordinated project development activities for 12 clients and 4 separate project managers including financial projections, equity prospectuses, permitting, construction bids and site analysis. Worked with board members, managers, and project developers to assess industry dynamics and strategically position companies for opportunities in the marketplace

**CoBank, ACB, Credit Associate, August 2004 to July 2006**
• Analyzed over 100 financial statements for clients within the agriculture and energy/power sectors as part of the credit review and approval process for commercial loans
• Managed all credit related actions for loan portfolios that ranged from 15-35 borrowers
• Conducted risk assessment of 59 separate loan exposures to ensure proper adherence to credit policies

**Purdue University, Research Assistant, August 2002 to August 2004**
• Analyzed the economic impacts of alternative forms of state legislation to support biodiesel usage

**Agri Business Group, Inc., Consulting Intern, June 2003 to August 2003 & June 2004 to August 2004**

**International Experience**
• Consulting & project management experience in US, Canada and Australia including long term assignment, employee management, and regular weekly travel

**Education**

**Master of Science, Agricultural Economics, August 2004**
**Purdue University – West Lafayette, IN**
• Emphasis: Industrial Organization & Markets
• Applied Skills: Partial Equilibrium Modeling
• Cumulative G.P.A.: 4.0/4.0
• Doctoral Fellowship: Frederick N. Andrews

**Bachelor of Science, Agriculture and Food Business Management, May 2002**
**University of Minnesota - Minneapolis/St. Paul**
• Emphasis: Business Management
• Cumulative G.P.A.: 3.9/4.0 – Graduated with Honors – Summa Cum Laude