Eric W. Kingsley Vice President, Innovative Natural Resource Solutions LLC

kingsley@inrsllc.com

Vice-President, Innovative Natural Resource Solutions LLC, 2000 - Present

Thirteen years of professional experience consulting, leadership and research for renewable energy projects, forest industry issues and economics of natural resource-based industries. Practice focused on biomass energy projects.

Project Responsibilities (Partial)

Renewable Energy Facility Development: Work with merchant, utility and municipal developers of renewable energy facilities on economic, regulatory and fuel supply aspects of projects. Issues include siting and permitting, interconnection issues, identification of funding opportunities, and off-grid or behind-the-meter electricity production. Ongoing.

Northern Wood Power Project: Responsible for analysis of wood supply, market research for renewable energy certificates, logging infrastructure, and economic impact of facility for 50 MW biomass power plant in Portsmouth, NH. Client: Public Service of New Hampshire, 2003 – 2005

Biomass Resource Analysis: Regularly perform biomass availability analysis for private clients interested in developing, purchasing, selling or re-starting biomass energy facilities. Clients include but are not limited to Conduit NH Energy LLC, New Energy Capital, Cleaves & Company, Covanta Energy, Dominion, Marubeni Sustainable Energy, D.G. Energy, Russell Biomass, Tamarack Energy, Mascoma, Clean Power Development, NRG Energy, GenPower Services, Anheuser Busch, Honeywell International, Safe Handling, Boralex, Panda Development Group and Wausau Paper. Ongoing.

Renewable Energy Market Analysis: Perform market analysis, including identification and quantification of risks, for developers of new renewable energy generation facilities. Issues include sale of electricity, renewable energy certificates and associated environmental attributes. Ongoing.

National Biomass Database: Led firm effort to develop a national, by county database showing potential biomass fuel availability by type, including forest residues, sawmill residue, net forest growth, urban wood and other sources. Database released in 2007, updates are an ongoing process.

Biomass Strategy Development: INRS has developed or led efforts to develop biomass strategies that focus on client objectives and regional or organizational priorities. Clients include National Association of State Foresters (2008), Massachusetts Division of Energy Resources (2008, unreleased), and The Energy Foundation (in development).



INNOVATIVE NATURAL RESOURCE SOLUTIONS LLC 107 ELM STREET, SUITE 100-G, PORTLAND, ME 04101 PHONE 207/772-5440, WWW.INRSLLC.COM *Atlantica Bio-Energy:* Member of team assembled by Pricewaterhouse Coopers to evaluate options for next-generation biomass and bio-product development in the New Brunswick, Nova Scotia and Maine. 2008.

New Hampshire Bio-Oil Opportunity Analysis: Conducted full feasibility analysis of biooil (pyrolysis oil) manufacturing facility in New Hampshire, including technology review, availability of low-grade wood, feedstock availability and pricing, markets for product, issues for selling energy from facility, and commercialization plan. Client: New Hampshire Office of Energy & Planning, 2004.

Identifying and implementing Alternatives to Sustain the Wood-Fired Electricity Generating Industry in New Hampshire: Served as lead researcher on three phase study analyzing a wide variety of potential markets for low-grade wood, including a comprehensive review of economics of wood-fired power for utility-scale boilers. Client: New Hampshire Department of Resources & Economic Development, 2000 – 2002.

Maine Future Forest Economy: Led comprehensive sector-by-sector analysis of Maine's wood using industries, including analysis of biomass facilities in Maine and opportunities to generate own power or sell renewable power into the grid using forest product manufacturing by-product. Clients: Maine Department of Conservation and Maine Technology Institute, 2004 – 2005

Governor's Council on the Sustainability of the Forest Products Industry: Coordinate research and writing for high-level public-private partnership to address issues in Maine's pulp and paper manufacturing sector. Clients: Maine Department of Economic & Community Development and Maine Technology Institute, 2004 – 2005.

Executive Director, New Hampshire Timberland Owners Association, 1995 –2000

• Responsible for day-to-day operation of 1,500 member 501.c.6 forestry trade association, representing the full spectrum of New Hampshire's commercial forestry community, including wood-using industries

• Represent organization in all legislative and administrative matters, including a successful full-time presence in the state legislature

• Represent organization as counsel pro se on all matters related to wood-fired utilities and utility restructuring before the state's Public Utility Commission

• Testified before U.S. House of Representatives Subcommittee on Forests & Forest Health regarding the future of the Forest Service in September 2000, and the Committee on Agriculture regarding Forest Health Legislation, June 1997

Education

Master of Science, Resource Administration and Management, May 1995 University of New Hampshire, Durham, New Hampshire

Bachelor of Arts, Major in Philosophy, May 1990 Ithaca College, Ithaca, New York



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Selected Publications

Establishing Long-Term Supply Agreements for Wood Energy Facilities. Prepared for the Empire State Forest Products Association. June 2008.

Biomass Availability Analysis – Five Counties of Western Massachusetts. Prepared for the Massachusetts Division of Energy Resources and the Massachusetts Department of Conservation and Recreation. January 2008.

Forest Harvesting Systems for Biomass Production. Prepared for the Massachusetts Technology Collaborative. June 2007.

Climate Change and New Hampshire's Forest Industry: A Discussion of Potential Changes. Prepared for Clean Air- Cool Planet and the Society for the Protection of New Hampshire Forests. March 2007.

Maine Future Forest Economy Project. Prepared for the Department of Conservation – Maine Forest Service and the Maine Technology Institute. March 2005.

Identifying and Implementing Alternatives to Sustain the Wood-Fired Electricity Generating Industry in New Hampshire. Prepared for the New Hampshire Department of Resources and Economic Development. January 2002.

Selected Articles and Presentations

Biomass Energy. Presented to the Eastern CANUSA Forest Science Conference, Orono, Maine. October 17, 2008.

Opportunities, Challenges and Considerations for Wood Fuel at Biomass Electric Power Plants. Presented at EUEC Environment & Energy Conference, Phoenix, AZ. January 29, 2008

"The Myth of Free Wood". Northern Woodlands Magazine. March 2008.

"A Forest Full of Energy." Northern Woodlands Magazine. Spring 2006.

"A Look at the Present and Future of Biomass." *Northern Logger*. November 2005.

Opportunities for Biomass Power in New England. Presented to the Maine Paper Foundation, Orono, Maine. April 6, 2006.

Biomass Energy & Wood-Based Bio-Fuels: What is the New Supply Model? Presented to the SUNY – ESF Conference on "Forest Bio-refinery - Establishing a path forward to cellulosic ethanol and other bio-products", Syracuse, NY.



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