

RIO ROLAND

RIOWROLAND@YAHOO.COM

Professional Goals

My aspiration is to be a leader in renewable energy. I will contribute my nine years' experience as an engineer/analyst in renewables and environmental consulting, and use my best quality – learning and synthesizing information to find creative solutions to problems that others often do not see – to add value to your organization and the industry

Experience

Freelance IT & Wind Energy Technical Consultant

Sustaina, LLC

San Diego, CA & North Dakota

2013 – Present

- Web site development and design utilizing content management systems, live video streaming, html5, JavaScript and CSS for both brick & mortar and e-business clientele. Home and small business networking
- Advising wind energy start up on technical and logistical issues in renewable development to successfully bring the product to market. Proposal review, GIS analysis and work-plan and contract execution assistance

Senior Resource Assessment Engineer

EDF-RE (formerly enXco)

San Diego, CA

2010 – 2013

- Led final field micrositings on over 1500 MW of windfarms in a variety of terrains across North America. Coordinated and managed all geospatial tools and information in a GIS. Kept focus on long term revenue by optimizing project energy and balancing infrastructure needs while addressing landowner concerns – leading to improved relationships with landowners and deeper ongoing collaboration with construction managers
- Represented the resource assessment groups interest in the due diligence process for over 1000 MW of potential acquisition projects, resulting in an improved investment portfolio. Quantified uncertainty of the energy production estimates by critically reviewing the data collection campaigns and subsequent analyses – giving executives the tools they needed to assess the projects' financial implications and risk profiles
- Cultivated strong relationship with the US DoD's Energy Siting Clearinghouse and other government agencies and industry experts, as well as the Canadian DND, on radar and windfarm issues. Session chair for the 2011 AWEA Siting Conference session: *Intro to Airspace & Radar Siting Issues*. These relationships led to a smoother and more certain process during the time-sensitive development cycle
- Recognized the need for internal expertise on sound and noise issues in windfarm development and optimization. Learned accepted modeling and measurement methodologies and became well versed in US and Canadian laws. Represented EDF-RE on the AWEA subcommittee on noise and sound issues and on the industry response to British Columbia's 2013 windfarms/noise guidelines update
- Developed protocol for organization of turbine manufacturer documents, data and power curves ensuring traceability and accurate usage – resulting in more reliable work products and a more accountable process
- Completed suitability documentation for 20+ windfarms in wind climates ranging from simple to complex. Created manufacturer specific data input templates making the process more efficient and accurate
- Prioritized offshore wind sites utilizing GIS and knowledge of critical offshore considerations resulting in superior bid applications for the preliminary offshore lease sale auctions

Resource Assessment Engineer

enXco

Chicago, IL

2008 – 2010

- Selected met tower sites and designed data collection campaigns, performed QA/QC of met data, modeled long term wind climates and reference station suitability – all reducing energy estimate uncertainty
- Oversaw permanent met tower sight selection and turbine testing to ensure contractual obligations were met
- Created model inputs, wind resource grids, turbine suitability analyses, optimized turbine layouts, energy forecasts and wind resource reports for over 2,200 MW of wind projects – all supporting rapid corporate growth and shifting reliance away from meteorological consultants

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Project Engineer

enXco

Minneapolis, MN

2007-2008

- Executed all GIS analyses for prospecting/origination, development and pre-construction activities, as well as for constraints and 'buildable land' analyses in the Midwest regional office
- Commissioned and oversaw fatal flaw analyses for prospective projects to understand project limitations because of geologic, wildlife, habitat, land use, cultural resource, or infrastructure issues
- Managed technical pre-construction activities: coordinated project surveyors and construction contractors, reviewed and assisted in project road, collector system, substation and transmission line location and design; reviewed geotechnical reports; coordinated airspace studies and FAA filings, and microwave beam path studies

GIS Analyst

Applied Ecological Services

Brodhead, WI & Prior Lake, MN

2005-2007

- Led the research team on a half million dollar Great Lakes Protection Fund grant to spatially identify areas of hydrologic impairment in the Great Lakes Basin. Developed GIS model and toolbar and disseminated these tools to local researchers and stakeholders. Managed the team so deliverables were on time and within budget
- Directed geospatial analysis for the Vermillion River Watershed Grant, a designated trout stream, where the goal was to develop a thermal and flow impact trading market to ameliorate development impacts. This grant was awarded because of prior experience from, and unique methods employed in, the Great Lakes research

Land Use/Environmental Planner

State of Minnesota – *Local Planning Assistance*

St. Paul, MN

2004-2005

- Facilitated a consortium of northern MN county commissioners to help solve issues arising when state and federal land use/environmental policy interferes with local land use authority
- Oversaw the design, administration and analysis of surveys for a watershed planning group within the context of local comprehensive plans. Facilitated planning group meetings to agree on goals for the planning process

Education

Master of Urban and Regional Planning – Environmental and Land Use Focus

University of Minnesota

Minneapolis, MN

May 2003

- Judd International Study Fellow: Refined sustainability indicators for large Polish cities with NGO in Warsaw
- *Masters paper*: "What is at the end of the road? Understanding discontinuities of on-street bicycle lanes in urban settings." Published in [Transportation Research Part D 10](#) (2005) 55–68

B.S. in Bioresource Research – Sustainable Ecosystems Option & Minor in Soil Science

Oregon State University

Corvallis, OR

May 1999

- Oregon Society of Soil Scientists Outstanding Senior Award (1999)
- Spearheaded a grassroots campaign to get support and funding for outdoor recycling bins on campus

Other

- State of Minnesota Facilitation Training. Fall 2004
- Taught 'Principles of Freshman Chemistry Laboratory' at Colorado School of Mines, Golden, CO. Fall 2000
- Field Ecology Research at Rocky Mountain Biological Laboratory, Crested Butte, CO. Summer 1997

Technical and Computer Skills

OPENWIND | WINDOGRAPHER | WASP | WINDFARMER | SDR | LIDAR | SODAR | MESOSCALE DATA | SCADA | MCP
MS OFFICE | WEBSITE DEVELOPMENT | HTML5 | CSS | JAVASCRIPT | PYTHON | LINUX | SKETCHUP | GPS | ARCGIS
SPATIAL ANALYST | 3-D ANALYST