

FEASIBILITY STUDIES

FINANCIAL MODELING

COMMUNITY OUTREACH PROGRAMS

WIND TURBINE PLANNING & PERMITTING

Windpower Consulting & Permitting Services

SITE SELECTION SERVICES

- Site Identification/Assessments
- Wind Resource Mapping
- Feasibility Studies
- Siting Analysis

Energy Production Modeling

- Conceptual Planning
- Regulatory & Permitting Reviews
- Meteorological Data Acquisition & Analysis

Turbine Visibility Studies

- Noise Impact
- Shadow Flicker Analysis & Mapping
- Turbine Sizing Review & Recommendations

PERMITTING SERVICES

- Site Survey & FAA Survey Certifications
- Turbine Balloon Tests & Photosimulations

Environmental Site Assessments

- Noise Impact Analyses
- Wetlands Delineation & Permitting

Wind Turbine Permitting Plans - Site Plans & Zoning Drawings

- Public Hearings & Permitting Presentations

ENGINEERING & CONSTRUCTION SERVICES

- Civil Engineering Design (Site Plans)
- Construction Drawings & Specifications

Geotechnical Investigation/Design Services

- Utility Interconnection Plans
- Construction Control & Stakeout Services

Wind speed	Power curve site	Energy curve site
10.0	1.0	1.0
11.0	1.5	1.5
12.0	2.5	2.5
13.0	4.5	4.5
14.0	8.0	8.0
15.0	13.0	13.0
16.0	20.0	20.0
17.0	30.0	30.0
18.0	45.0	45.0
19.0	65.0	65.0
20.0	90.0	90.0
21.0	120.0	120.0
22.0	160.0	160.0
23.0	210.0	210.0
24.0	270.0	270.0
25.0	340.0	340.0
26.0	420.0	420.0
27.0	510.0	510.0
28.0	610.0	610.0
29.0	720.0	720.0
30.0	840.0	840.0



Atlantic's Windpower Consulting & Permitting Services

are enhanced by our engineering software programs and our state-of-the-art, computer-assisted design and drafting system. Atlantic has developed an in-house, patent pending, predictive wind contour mapping process that allows us to use available wind resource data to fully assess planned wind projects.

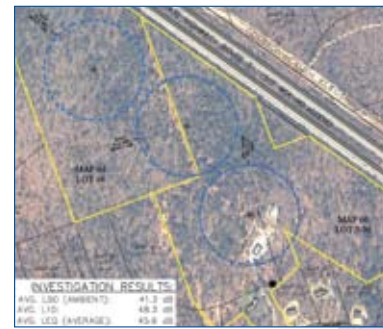
Our staff of professionals and support personnel, including civil engineers and environmental engineers, environmental scientists and land surveyors, ensures the highest quality services and products in a timely and cost-efficient manner. To date we have been involved in various aspects of siting analysis, permitting, and design of over 50 wind turbine project sites. With our added experience in over 500 cell tower projects in the New England region during the past 18 years, Atlantic has acquired the unique skills for effective wind turbine project assessment, permitting and construction.

Atlantic's Project Team Approach

utilizes our most qualified associates to provide the expertise needed to address all aspects of each project. A principal of the firm is overall project manager regardless of the project's size. We bring our extensive knowledge of regulatory and compliance requirements to each project.

Atlantic provides comprehensive design services

through the use of fully automated CADD workstations and a wide variety of engineering software packages. Atlantic's computerized design capabilities include: coordinate geometry; predictive wind contour modeling (patent pending); turbine access road plans and profiles; site grading plans; turbine and crane staging plans; stormwater management, erosion control and landscape design.



TURBINE SELECTION & SITING

WIND ENERGY PRODUCTION MODELING



PHOTOSIMULATION



Representative Client Listing

Windpower Clients

Mulcor Wind, Inc. – Plymouth, MA
 City of Fitchburg – Fitchburg, MA
 Jericho Mountain Wind Co. – Weymouth, MA
 Saxon Partners – Plymouth, MA
 Braintree Electric Light Department – Braintree, MA
 National Marine Life Center – Bourne, MA
 Town of Plymouth School Department – Plymouth, MA
 Lumus Construction/Solaya, Inc. – Woburn, MA
 Town of Dartmouth – Dartmouth, MA
 Chester Municipal Electric Light Department – Chester, MA
 Balboni Companies – Plymouth, MA
 City of New Bedford – New Bedford, MA
 CCI Energy, LLC – Plymouth, MA
 Southcoast Hospital Group – New Bedford, MA
 L. Knife & Son, Inc. – Plymouth, MA
 Massachusetts Maritime Academy – Bourne, MA
 Stop & Shop Companies – Quincy, MA
 American Pro Wind, LLC – Weymouth, MA
 Town of Wareham – Wareham, MA
 Olde Dartmouth Farm – Dartmouth, MA
 Russell Municipal Light Department – Russell, MA
 Gibbett Hill Farm, LLC – Groton, MA
 Town of Yarmouth, MA



Select Windpower Projects

American Pro Wind, LLC – Currently in the permit review process with the Town of Douglas Zoning Board of Appeals for special use and height variances for installation of a proposed 13- turbine wind project on 275 acres of land west of the Douglas State Forest. A height and use variance to allow for a meteorological test tower has been approved.

Balboni Companies – Atlantic is currently permitting an 80 meter wind turbine to be installed on Camelot Drive. Site plans, balloon test and photosimulations, acoustic noise analysis, environmental impact statement and shadow flicker analysis were completed and reviewed by the Town. The Zoning Board of Appeals voted unanimously to grant the Special Permit.

Bay Hill Wind Project – A planned 2 MW wind generation project located on 70 acres in Plymouth, MA. Services included wind modeling, feasibility assessment, conceptual and engineering permitting plans, balloon tests and sightline photography/photosimulations, Special Permit Applications and Meteorological Tower Permitting/Data Assessment.

Braintree Electric Light Department – Feasibility review and conceptual evaluation of wind turbine installations for multiple locations in the Town of Braintree, MA.

CCI Energy, LLC – Final permitting plans and approvals for a two turbine, 3.3 MW project in Fairhaven, MA. Services included site plan preparation, turbine siting, energy and wind modeling, public hearing attendance and permitting presentations.

Cohasset Heights Wind Project – Completion of environmental studies including shadow flicker analysis, balloon test and engineered photosimulations for a proposed two turbine, 3.3 MW wind project in Cohasset, MA.

City of Fitchburg – Initial feasibility assessment for potential multiple wind turbine installations at the Falulah Water Treatment Plant in Fitchburg, MA.

Jericho Mountain Wind Farm – Atlantic is providing wind resource and feasibility assessment, and engineering and permitting services for a planned 3.8 MW wind turbine project in Berlin, NH. Site plans for a seven turbine project were completed and approvals received from the Zoning Board of Adjustment for turbine installation.

L. Knife & Son, Inc. – Initial assessment for a wind turbine installation at a 6 acre parcel located on Aldrin Street in Plymouth, MA.

Lumus Construction, Inc. – Retained to provide third party construction monitoring services for compliance with turbine vendor requirements as well as third party inspection services during installation of the 600 kw wind turbine at Mark Richey Woodworking in Newburyport, MA for compliance with both local permit conditions and regulatory requirements.

Massachusetts Maritime Academy – Engineering services relative to technical and financial assessment of the potential future wind turbine replacement at the Mass Maritime Academy located in Bourne, MA. ▶

Olde Dartmouth Farm – Completion of field surveys, permit plans, engineered photosimulations, noise and flicker studies for the project permitting and approval process for a planned wind turbine installation in South Dartmouth, MA.



Presque Isle, Maine – Retained by Lumus Construction to provide site construction plans and third party review services for the installation of a RRB 600 kw wind turbine at the University of Maine at Presque Isle. The foundation is installed and the turbine installation pending.

Russell Electric Light Department – Completed an Initial Feasibility Assessment for a proposed 2-turbine wind project on approximately 256 acres on Holiday Hill in Russell, MA. Atlantic is currently working on met data compilation/review, project environmental studies, and site engineering plans for project permitting.

Southcoast Hospital Group – Completed an Initial Feasibility Assessment for potential wind turbine installations in Wareham, MA. The installation and Initial Feasibility Study has been updated to reflect both the recent enacted net metering regulations and potential siting of wind turbines on the property.

Stop & Shop Companies – Based upon initial wind resource reviews and preliminary screening and assessments, Atlantic identified store locations with adequate wind resources and setbacks for potential wind turbine sitings. Atlantic is currently compiling meteorological data from a nearby site in Gloucester, MA for meteorological certification for the Gloucester property.

Town of Dartmouth – Feasibility study and conceptual site plans were completed for a two turbine 3.3 MW wind project on Chase Road for the Town of Dartmouth. The Board of Selectmen has approved moving forward on the project.

Town of Plymouth School Department – Feasibility review and siting evaluations for multiple turbine installations at the South High School property. A Permitting Plan for the installation of a meteorological (MET) tower at the Plymouth High School was prepared.

UMass Renewable Energy Lab – Developed project design, turbine layout, and energy projections for a two turbine project. Investigated permit requirements, recommended final project area for development and completed final site layout for the Town of Chester.

Wareham Water Pollution Control Facility – Completed an initial siting review and feasibility assessment for a planned 100m wind turbine at the Water Pollution Control Facility property, and prepared a LORI grant application for the Town, meteorological tower permit plans and tower bid specifications.

Atlantic
 Atlantic Renewable Energy Services, Inc.

P.O. Box 1051
 Sandwich, MA 02563
 (508) 888-9282
 Fax (508) 888-5859
www.atlanticcompanies.com

Atlantic
 Atlantic Renewable Energy Services, Inc.