



Atlantic Design Engineers, Inc.

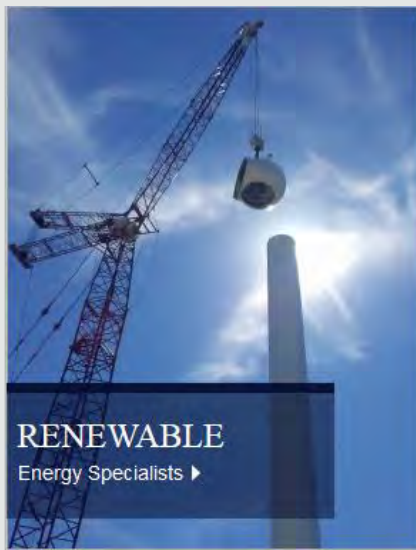
P.O. Box 1051
Sandwich, MA 02563
(508) 888-9282

Atlantic's mission is to provide
the highest level of engineering and
environmental services possible to achieve
successful outcomes for our clients

*Enclosed please find a personalized set of qualifications regarding
Atlantic's solar expertise.*



CIVIL
Engineering ▶



RENEWABLE
Energy Specialists ▶



ENVIRONMENTAL
Consulting & Management ▶



Solar Qualifications

Atlantic Design Engineers, Inc. is a multi-disciplinary consulting firm providing professional services in the civil/environmental engineering and renewable energy sectors throughout New England since 1987.

Atlantic provides a wide variety of services associated with photovoltaic system design, utility interconnection, local and state level permitting, land surveying, construction design and general consulting for state and federal incentive qualification. Our team of experienced engineers, scientists and surveyors utilize state-of-the-art automated design programs and precision based field equipment to provide a comprehensive range of solar project services.

Our extensive experience in the design of solar, wind and hydroelectric fields ranges from preliminary conceptual design through construction. Atlantic is committed to timely completion of quality engineering and permitting services to attain our clients goals on every project we undertake.



39 Pleasant Street Sagamore, MA 02561
(508) 888-9282 · FAX 888-5859
email: ade@atlanticcompanies.com
www.atlanticcompanies.com

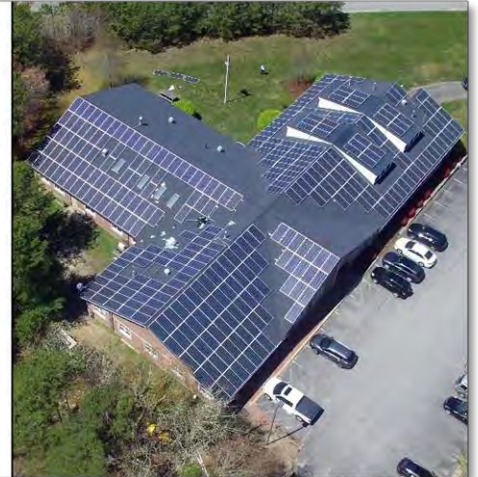


Our designs include advanced GIS capabilities, fully integrated stormwater hydraulics, PV panel array layout, site screening and earthwork balancing, which allows us to evaluate alternative designs in the conceptual planning stages of a project.

Solar Services

Preliminary Design Services

- Desktop Reviews/Site Screening
- Existing Infrastructure Analysis
- Feasibility Studies/Analysis
- Conceptual Site Plans
- Energy Production Estimates
- Financial Proformas



Permitting Phase Services

- Local, State & Federal Level Permitting
- Regulatory Analysis and Agency Coordination
- Interconnection Coordination & Application
- Public Hearing Presentation
- Land Surveying Including ALTA Surveys
- 3D Modeling & Photo-Simulations
- Wetland/Environmental Permitting

Engineering, Construction & SREC Services

- Stormwater Management
- Erosion Control Design
- Site Grading/Earthwork Balance Calculations
- Access Road Design
- Construction Inspections for Financial Lending
- Wireless Monitoring & O&M Solutions for both RGM Production & Major AC Related Components
- Net Metering Credit Allocation



Representative Projects

Equitable Bank Rooftop Solar - Kingston, MA

Atlantic designed and was responsible for the installation of a 24.8 kW DC solar photovoltaic system for an Equitable Bank branch located on 0.51 acres of land in Kingston, MA.

Atlantic served as the owner's representative throughout the permitting and construction of the solar array, including equipment delivery and storage, site electrical services, electrical disconnect panel and breaker installation, and rooftop racking and panel installation.



Community Canal Solar Project - Sandwich, MA

NRG selected Atlantic to perform permitting and engineering services for a 1.5 MW ground-mounted photovoltaic system located on a 20.6-acre parcel adjacent to the NRG Canal Generating Plant in Sandwich, MA.

Authorization to construct the facility was obtained in part through Atlantic's assistance with a Town Zoning Change, ZBA Special Permit, Historic District approval, Conservation Commission approval, and review and acceptance by the Cape Cod Commission of Development of Regional Impact filings.

Atlantic continued to provide construction control and survey services throughout the construction phase of the project for the EPC contractor M&W Group.



Complete Rooftop Design - East Falmouth, MA

A pre-construction due diligence report was presented to Industria Development Group including a technical, regulatory and energy assessment regarding the construction of a 100 kW AC roof mounted solar system.

Due diligence services included a site visit to confirm pre-construction conditions and requirements, a review of equipment, performance and degradation projections, and warranty terms, review and assessment of projected energy output, review of applicant provided documents, and an estimated project construction value. Atlantic provided the client with construction review services, which included a review of project permit conditions and periodic inspections during construction to assess compliance with construction requirements.



Diligence Review – Avon, MA

Atlantic was retained to provide Wellesley Bank with an Engineering Review and Project Due Diligence Services as part of financial lending for the installation of a 1.25 MW solar photovoltaic system. The array covered approximately 200,000 ft² atop a commercial building located off Murphy Drive in Avon, MA. The due diligence review provided the Client with a document and permit review, technical specification analysis, site walk and construction inspection, financial proforma review and project pricing, and an SREC evaluation.



Redbrook Due Diligence Review – Plymouth, MA

Atlantic provided Equitable Bank with an Engineering Review and Project Due Diligence Services for a 500 kW ground mounted solar photovoltaic system located on an 8-acre property located off Rustcraft Road in Dedham, MA.

The due diligence review provided the Client with a technical specification analysis for proposed photovoltaic modules and inverters. Additionally, Atlantic completed a document and permit review, site walk and construction inspections.



Main Street Solar LLC - Wareham, MA

Engineering design and support services were provided for the installation of a 145 kW DC roof mounted photovoltaic system distributed atop ten apartment buildings on 8.9 acres of land in Wareham, MA.

Services provided included, but were not limited to, evaluation and review of solar options and layouts, energy analysis prior to installation, coordination with outside institutions including Eversource and Weymouth Bank and net metering assurance and allocations filings.



Representative Projects

Cedar Street Landfill Solar – Cohasset, MA

On behalf of Palmer Capital and the Town of Cohasset, Atlantic provided survey and engineering services relative to design and permitting of a 560 kW solar panel array at the Cedar Street Landfill located in Cohasset, MA.

A Major Post Closure Use Application was completed for filing with the MassDEP, including an assessment of landfill cap impacts, glare analysis, stormwater management design, and Operation and Maintenance Plans for the solar array. Detailed Site Plans were prepared to accompany both the DEP and local permitting submittals.

Atlantic's role continued through to Construction Support Services for the Client. These services included site walks and Construction Inspection Reports as the major phases of construction were completed. Upon conclusion of the project, Atlantic composed and submitted the project Certification Report to the MassDEP.



Cape Code Aggregates Solar – Freetown, MA

Upon Industria Development Groups' request, Atlantic provided professional services relative to the design and permitting of a 432 kW AC ground mounted solar photovoltaic system at the Cape Code Aggregates facility located off Bryant Street in the Town of Freetown, MA.

Services provided included technical reviews of solar panel specifications, performance projections and warranties, energy output projections, construction plans, engineering designs and reports.



17 Milestone Crossing – Nantucket, MA

Atlantic provided design, permitting services, and construction support for the installation of a 30 kW ground mounted solar photovoltaic system located at a residential property on Nantucket, MA, which remains one of the largest installations on the island to date.

Services provided included technical reviews of solar panel specifications, site inspections and an existing conditions survey, construction stake out services, design plans, and permitting services.



Professional Solar Experience

Simon Thomas, LSP

President

Photovoltaic Development Experience

Mr. Thomas has over twenty-five years of professional experience in renewable energy projects including wind, solar and solid waste/landfill gas to energy projects. Recent solar experience includes over fifty (50) solar photovoltaic projects completed within the past seven years including solar site assessments, conceptual solar site and rooftop plans, interconnection site plans, environmental and wetlands assessments, local zoning and regulatory project permitting, energy production modeling, and construction services.

Currently, Mr. Thomas is involved with site assessment, engineering design and local/state permitting services for in excess of 20 solar projects in the 1MW to 5MW scale range, which are in the active development stages for various clients.

Representative Renewable Energy Projects:

CCA Freetown Solar Project – Responsible for conceptual design, site plans and permitting services for a 560 kW behind-the-meter photovoltaic array installed to support on-site electrical demands at the Cape Cod Aggregate facility in Freetown, MA.

Equitable Bank – Responsible for permitting, design, installation and startup services for rooftop solar installations at bank locations in Kingstown and Lynn, MA.

Industria Group 815 Main Street Solar – Involved with the design, permitting and contract management for the installation of a 145kW solar project encompassing 10 buildings through a single net metering utility interconnection in Wareham, MA.

NRG Community Solar Project – Involved in the site review and selection process, conceptual site planning, energy production analyses, and local and regional project permitting for the 1.5MW solar project adjacent to the NRG Canal Generating Plant in Sandwich, MA.

Greenwood Meadows Solar Project – Involved with the conceptual planning, environmental assessment and Special Permit Site Plans for construction of the 3.85MW solar project in South Sandwich, MA.

Wareham Fire District Solar – Responsible for due diligence technical review and construction review services on behalf of the project financing team for a 650 kW solar project constructed for the Wareham Fire District in Wareham, MA.

Contact

Simon B. Thomas, LSP

President

Atlantic Design Engineers, Inc.

P: (508) 888-9282 ext. 15

C: (508) 27-0536

sthomas@atlanticcompanies.com

Professional Solar Experience

Zachary Thomas
Program Manager

Photovoltaic Development Experience

Mr. Thomas has over six years of experience in renewable energy development, ranging from conceptual designs and utility interconnection applications to local/state permitting and procurement/construction management. This experience is augmented by a history of due diligence review services completed on behalf of financial lending institutions for large-scale renewable projects. Mr. Thomas has been involved in solar, wind, and hydroelectric renewable energy projects ranging from 14.5kW to 5 Megawatts throughout New England.

Representative Renewable Energy Projects

Cohasset Landfill Solar Project (560kW) – Work included completion of a Post Closure Use Application submitted to the Massachusetts Department of Environmental Protection for a major modification to a closed landfill. The complex nature of the project required a full construction design including completion of thorough geotechnical stability, settlement and slope analyses during the permitting phase.

15 Research Road, Falmouth – Work completed for this 120kW roof mounted project included layout design, utility interconnection application and owner consulting regarding procurement, installation and state incentive filings. Mr. Thomas acted as both project manager and owners representative resulting in a per-watt project cost competitive with a megawatt scale facility.

Mann Farms Solar, Bourne – This 70kW ground mounted array was a great opportunity as it was the first project where permitting and interconnection design resulted in executing an in-house engineering, procurement and construction (EPC) agreement. Work involved subcontracting site work, electrical work as well as securing rights to Solar Renewable Energy Credits (SREC II) and net metering eligibility.

NRG Community Solar Project – This 1.5MW solar development was tasked with extremely complex permitting requirements as the project is sited on Cape Cod and within two historic districts. Using 3D modeling software and solar array photo-simulations, the project remains well hidden from sensitive areas/sight lines.

Milestone Crossing, Nantucket – This project is one of the largest solar installations to date on the island of Nantucket. Work included local permitting, system design, survey, and construction stakeout services as well as incensing filings with the Department of Energy Resources (DOER) and net metering assurance.

CCA Freetown Solar Project – This 560kW ground mounted project is located on an active rock crushing facility where soiling would generally reduce system efficiency. A proprietary self-cleaning titanium oxide treatment was implemented on the surface of the modules to counteract site conditions effectively reducing soiling impacts.

Redbrook Solar Due Diligence Review – A due diligence engineering review was completed on behalf of a financial lending institution for this 650kW ground mounted project. An engineering review and project evaluation was presented throughout a 14-page narrative and associated supporting documentation.

815 Main Street Rooftop – This project was unique in the fact that solar modules were installed on ten non-contiguous buildings using a single net meter.

Contact

Zachary R. Thomas
Program Manager - Solar
Atlantic Design Engineers, Inc.
P: (508) 888-9282 ext. 27
C: (508) 274-1880
zthomas@atlanticcompanies.com