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August 30, 2013

Board of Selectmen  
Chilmark Town Hall  
401 Middle Road  
Chilmark, MA 02535-0119

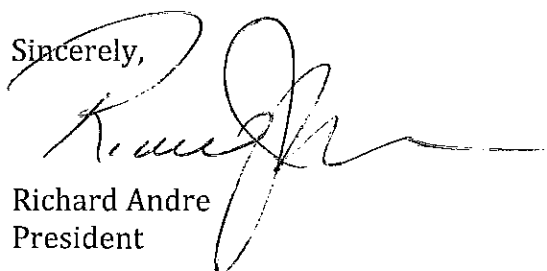
**RE: Request for Proposals: Solar Photovoltaic Project at Chilmark Landfill**

Gentlemen;

We are pleased to submit the enclosed proposal to install a photovoltaic system on the Chilmark landfill and to supply the Town of Chilmark with renewable energy from that facility. We look forward to the opportunity to work together and are available to answer any questions on the details of this submittal.

Please find enclosed the original and three copies of our proposal and its six appendices.

Sincerely,

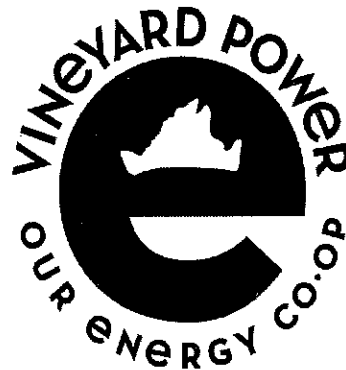
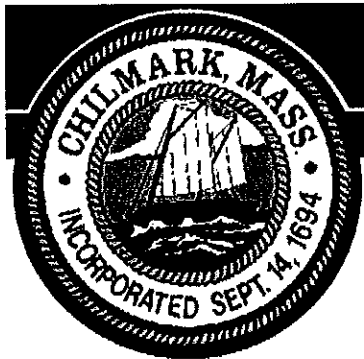


Richard Andre  
President

cc: Tim Carroll, Executive Secretary

Proposal  
to  
Town of Chilmark  
for a  
**SOLAR PHOTOVOLTAIC PROJECT**  
at  
**THE CHILMARK LANDFILL**

August 30, 2013



Vineyard Power Cooperative, Inc.  
PO Box 1077  
West Tisbury, MA 02575

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## Executive Summary

Vineyard Power Cooperative is pleased to propose a nominal 173 kW system in response to the Request for Proposal entitled *Solar Photovoltaic Project at Chilmark Landfill*. We expect this system to generate 210,000 kWh in a normal year, all of which will be sold to the Town of Chilmark at a discount of almost 12% off the NStar Basic Service rate. The system, owned by Vineyard Power Solar IV, LLC and operated by Vineyard Power Cooperative, will be offered to the Town at the end of a 10 year Power Purchase Agreement (PPA) in return for its fair market value at the time.

Due solely to recent changes in the Commonwealth's Solar Renewable Energy Credit (SREC) program, we will construct the array in two phases. Phase I capacity will be 99 kW but include the permitting, design and infrastructure for all 173 kW. Phase II capacity will be 74 kW. We are fully prepared, capitalized and committed to commence Phase II construction as soon as SREC program constraints allow; while we expect that to occur within a few months, we cannot be certain yet.

Vineyard Power Solar IV, LLC will lease a portion of the capped landfill from the Town for \$8,000 per year (\$4,500 for Phase I and \$3,500 for Phase II). We propose to accrue the lease payments over the term of the Agreement. The accrual account balance in effect funds a substantial portion of the purchase price (fair market price) for the system, meeting the Town's need for minimum capital outlay while satisfying the IRS rules governing the tax treatment essential to the deal.

This system will earn the Town of Chilmark \$12,600 per year (\$7,200 for Phase I and \$5,400 for Phase II) from energy savings and lease payments. Assuming a 6 month delay in constructing Phase II, earnings over the 10 year term will be \$125,000. If the Town elects to purchase the array in 10 years, it may expect net earnings of \$50,000 per year for 15 subsequent years; that amounts to another \$750,000.

We have assembled a fully competent team and the resources to execute this work with high quality and on schedule. We are motivated in this regard by the revenue structure of the Power Purchase Agreement which aligns our incentives with the Town's long term needs. We need an efficient, long-lived, low maintenance and reliable system to earn our revenue; our choices of equipment and design are geared to those objectives.

**PROPOSAL FORM**  
***Solar Photovoltaic Project***  
***at the Chilmark Landfill***

*Please print or type.*

Name of Contractor	Vineyard Power Cooperative, Inc.		
Street Address	PO Box 1077		
City or Town	West Tisbury	State and Zip Code	Massachusetts 02575
Telephone	508-693-3002	Fax	508-693-3002

The undersigned Contractor, in compliance with your invitation for proposal, having examined the specifications and related documents, hereby proposes to design, install, and maintain the solar photovoltaic system in compliance with the Request for Proposal documents, for the AGREEMENT term stated below. This term covers all expenses incurred in performing the work required under a contract, of which this proposal is a part, as well as all overhead and profit.

- I. The Contractor acknowledges receipt of the following addenda: None
- II. Complete Entries A - G on this form. The Contractor may include in a separate submission with this form any exceptions to the stipulations of the Request for Proposals.
- |                                  |   |
|----------------------------------|---|
| A. Nominal System Size           | <u>172.6</u> kW (DC, at Standard Test Conditions)             |
| B. Minimum Annual Generation     | <u>200,000</u> kWh (AC, at interconnect revenue meter)        |
| C. Initial Price                 | <u>88</u> % of the project's net metering electricity rate *  |
| D. Price Escalation Rate, if any | <u>0</u> % per year   |
| E. Annual Lease Payment          | \$ 8,000 (\$4,500 for Phase I, \$3,500 for Phase II) per year |
| F. Initial Term of Agreement     | <u>10</u> years   |
| G. Term Extensions, if any       | <u>5</u> years of extension <u>3</u> number of extensions     |
- III. Describe the post-Agreement transfer method you propose. If a fixed price, state that price. If a formula, show terms and sample calculation. Clearly delineate options, if offered.

Chilmark has three options:

- It can purchase the system for "fair market value" as determined by its potential for future earnings marked down to achieve a return on investment the IRS considers reasonable. We interpret that to mean the market value is 1/10 of 15 years worth of potential net earnings. Vineyard Power will dedicate the accrued lease payments to the purchase price.
- It can engage one or more extensions to the PPA and the lease, thus extending the existing arrangement for up to 15 more years.
- It can terminate the PPA and lease, require Vineyard Power to remove its system and restore the site. In this case, the cost of removal and restoration will be deducted from the accrued lease payments and the balance refunded to the Town.

Signature

August 30, 2013

Date

Vineyard Power Cooperative, Inc.  
Name of Business

\* The net metering rate is very slightly (~\$.003/kWh) less than NStar's Basic Service rate.

## **Introduction**

Since its inception in November, 2009, Vineyard Power Cooperative (VP) has grown to almost 1,400 members. Our mission is to create stable, affordable renewable energy for Martha's Vineyard. We are committed to local job creation, community outreach, and strengthening our local economy. This project fits nicely for us and we are committed to make it work well.

Our turnkey subcontractor and partner in promoting PV capacity on Martha's Vineyard is South Mountain Company (SMC).

Since 2008, the Commonwealth of Massachusetts has funded the installation of more than 2,000 kW of PV on Martha's Vineyard, almost half of this has been installed by South Mountain Company, whose office is based in West Tisbury. SMC's mechanics are qualified North American Board of Certified Energy Practitioners (NABCEP) PV installers & hold a Division of Capital Management (DCAM) Certification.

SMC has assembled an experienced and eminently qualified team of staff, specialty consultants and sub-contractors to ensure timely and efficient installation and the best in quality system components.

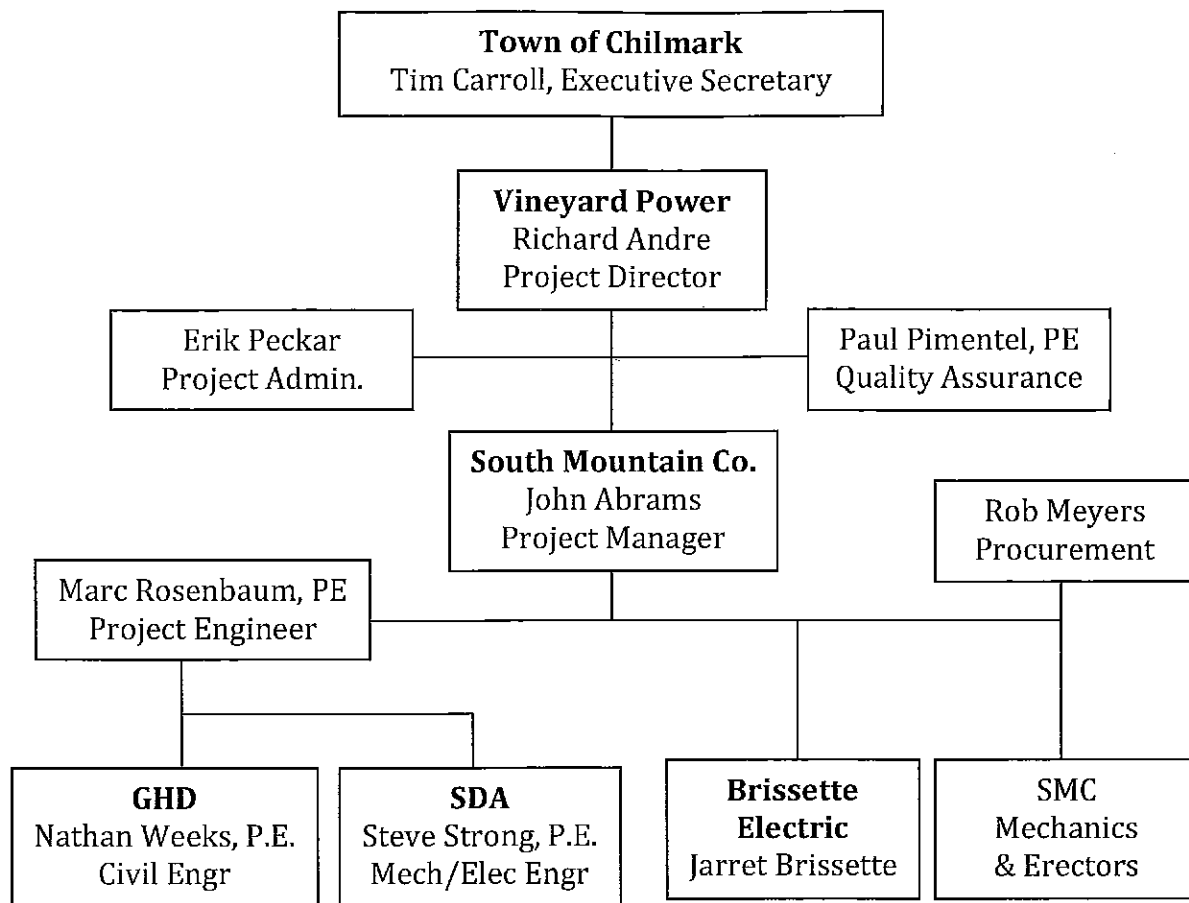
You will find the resumes, qualifications and relevant experience of the project team in Appendix A and our specific references in Appendix C.

We come prepared financially as well. We have commitments documented in Appendix D for more than 1,250,000 of equity for the project.

## **Organization**

Through our own rigorous selection process, Vineyard Power chose South Mountain Company (SMC) as the turnkey installer for any solar project we undertake. South Mountain is an employee owned company with a stellar reputation and long record of service to the Vineyard Community and a history of successful PV installations.

The chart on the following page describes the individuals and companies comprising the team we have assembled for this project and their relationship within that team. As the engineer of record on the post-closure permit for the transfer station, Nathan C. Weeks of GHD couldn't be a better choice for the environmental and landfill aspects of the project. SDA and Steve Strong are the premier solar system designers in New England.



## Chilmark Landfill PV Project Organization

### System Description

The schematic layout on the following page shows the approximate size and positioning of a 172.6 kW array. This may not be the final layout as the optimization process often redirects the placement but it illustrates that we can locate the necessary capacity on the site. The project will be designed and installed in two phases, the first is 99.4 kW and the second 73.2 kW. This phasing is solely to comply with limitations of the Commonwealth's recently oversubscribed Solar Renewable Energy Credit program – a threshold essential to the project economics. The phases will be as closely overlapped as the program constraints allow such that the Town will see little impact on generation.

The combined array will be approximately one-hundred and thirteen feet wide at its widest (east to west) by one-hundred and ninety feet deep (north to south) and include the following equipment or its equivalent:

- Five-hundred and twenty-eight 327 Watt polycrystalline PV modules mounted in "tables" of 16 modules each
- Galvanized steel and Aluminum racking system held in place by concrete ballast
- High quality finish designed to withstand coastal applications
- Thirty-three string inverters, each serving a table and mounted on its own table rack

- ## DETAIL





The following permits are included in the scope of work:

- MADEP Major Post-Closure Use permit (BWP SW 36)
- Nstar Grid Interconnection agreement.
- Town building and electrical permits.

## **Landfill Cap Preservation**

The capping system is described in DEP's Landfill Closure & Transfer Station Permitting Document for the Town of Chilmark, Massachusetts of April 2002. Above the 40 mil HDPE barrier is, in sequence, a 12" drainage layer of sand, a geotextile (landscape cloth) and a 6" vegetative (loam) layer with wild grasses and flowers entwined with erosion control matting. In the area covered by the solar array – all Type B cap, the MOST AGGRESSIVE preparation we would employ is to remove the matting, scrape off the sod and 4" of the vegetative layer, replacing it with engineered fill to about 3" below grade and place our footings directly on that compacted fill. We will not disturb the geotextile sheet under any circumstances. We are still investigating rack and ballast systems with less invasive preparation. Our design will incorporate consideration of pitch, drainage, vegetation control, reflectance, appearance, soil loading and settling and will be completed in a manner consistent with (and probably conditioned by) the Post-Closure permit.

Nathan Weeks of GHD, who designed the original closure of this landfill, will perform the necessary Massachusetts Department of Environmental Protection ("DEP") post-closure compliance engineering studies regarding the use of the facility for a ground-mounted solar PV System and prepare the Post-Closure Permit application for the Town. We will provide "as built" drawings of all existing and modified conditions associated with the project conforming to typical engineering standards. This will include civil, mechanical, electrical, structural, and control drawings, if applicable, each stamped by a Massachusetts Registered Professional Engineers for the corresponding discipline.

## **Transfer Station Operation**

During the operational phase of the Agreement, there will be no interference by the PV system with normal operation of the transfer and recycling station or the transient parking lot.

During the construction phase, VP will need a lay down area for its materials and parking for construction labor and material handling equipment. After award but before any on-site activity, VP will submit a site utilization plan and layout for Town pre-approval to utilize the transient parking area shown as Type C Cap on the Facility Site Plan (Attachment 3 of the RFP), *Plan of Land in Chilmark, MA February 1, 2012*. Furthermore, VP will schedule delivery and equipment movements to hours when the transfer station is closed.

During construction, our plan will not use any transfer station space and will not interfere with conventional and reasonable use of the transfer station by residents. Any variation in this procedure, affecting use during normal operating hours, would require written permission of the Town Administrator.

During construction only, our plan's site safety and equipment movement requirements preclude use of the transient parking area by the Town or private citizens. We are advised this lot is rarely used now and therefore no hardship will ensue from its temporary designation as a staging area.

## **Safety**

During performance of this contract, Vineyard Power and SMC will be responsible for the prevention of accidents and injury in the vicinity of or connected to our work. We agree to comply with all federal, state, and local laws, ordinances, rules, regulations, and codes concerning safety including, but not limited to, the Federal Occupational Safety and Health Act of 1970, as amended (OSHA).

## **Warranty**

This installation will be covered by a warranty for the duration of the Agreement including labor and cost of replacement equipment. At the termination of the agreement and as part of the transfer of ownership from Vineyard Power to the Town, all remaining manufacturer warranty coverage will be transferred to the Town. Such coverage is described on product information sheets.

## **Project Economics**

Vineyard Power, through its investment affiliate Vineyard Power Solar IV LLC, will design, construct, operate and manage a nominal 173 KW ballasted ground mounted PV solar array at the Chilmark Landfill, hosted by the Town of Chilmark. This system is designed to generate enough renewable energy to supply approximately 100% of the Town of Chilmark's municipal electric load.

The basic business and finance structure is:

- 1) Commencing in October 2013, Vineyard Power Solar IV will construct a solar array on a portion of the landfill that would produce about 215,000 kWh of renewable electricity.
- 3) Commissioning and substantial completion will take place in early Q1 2014.
- 4) Prior to Notice to Proceed, the Town of Chilmark will enter into a 10 year Power Purchase Agreement (PPA) for the electricity generated by Vineyard Power Solar IV at a price equivalent to a 12% discount from the project's Net Metering Rate\*. This is estimated to save the Town of Chilmark a total of \$4,600/year in electricity rates or \$45,000 over the first 10-year term of the PPA for the total 173 KW project. The PPA will also include three (3) five (5) year extensions, to be mutually agreed upon, for a total of 25 years or the estimated commercial life of the project.

\* The Net Metering Rate is slightly less than the N-Star's Basic Service Rate

- 5) The Town of Chilmark will enter into a 123 month lease agreement, commencing on October 1, 2013 and ending in December 31, 2023, with Vineyard Power Solar IV for the land upon which the PV system is erected and easements needed for the interconnection cabling and access. Vineyard Power Solar IV will agree to a lease rate of \$8,000/year for leasing the land, less the assessed property and real estate tax, on which the proposed PV system is located. Of that lease amount, we propose to pay the Town of Chilmark \$1 per year and to defer the remaining balance until the end of the initial 10-year operating period on December 31, 2023. At that time, the deferred rental payments, totaling approximately \$75,000 could be used by the Town to

purchase the system, at Fair Market Value, or could be paid to the Town if they decide not to purchase system.

6) After the initial ten (10) year term of the contracts, the Town of Chilmark will have realized \$45,000 in electricity savings and received \$80,000 in lease payments and taxes for a total of \$125,000. If the Town of Chilmark exercises its purchase option after the initial term, it will own 100% of the renewable energy system, the benefits accruing to the Town would include:

b) A fully functional PV system with a remaining economic life of between 15-20 years.

b) 215,000 kWh of renewable energy that would satisfy 100% of the municipal load, worth an average of \$60,000 gross revenue per year to the Town.

c) The economic value, defined as the Net Present Value (NPV) of the cash flow generated, to the Town over the estimated remaining 15-year life span, at a discount rate of 2.5% and after deducting \$10,000 per year in insurance and other annual expenses, would be approximately \$625,000.

## Assumptions and Exclusions

- Under Article 3.d., relocation or creation of drainage swales, wetlands, water or other forms of existing infrastructure needed to install the PV system is not included. This does not apply to electric modifications required to make the NStar approved interconnect or signal modifications to establish the DAS connection.
- Article 3.e. requires a guarantee of the integrity of the landfill capping system during construction and for the duration of the Agreement. Vineyard Power accepts responsibility for breach of integrity caused by its actions or effects under its control as determined by a competent third party but not otherwise.
- Article 3.f. requires performance of all studies, designs or other services required for the Town to **obtain** its interconnect agreement from NStar. Vineyard Power will perform such work if required for a complete application but cannot guarantee that the Town will obtain approval.
- Article 3.l. requires payment of all applicable property taxes assessed for the duration of the Agreement. We believe, under MGL59-5 (45,45A), this system is exempt from property tax for 20 years and have included no provision for such payments.
- Minimum Qualifications Article 6.f. requires Professional Liability coverage that VP does not have. We contend that such coverage is not applicable for the PV system or racking because that equipment belongs to Vineyard Power; its performance and production do not affect the Town financially as the Agreement calls only for payment for energy actually delivered. We propose that it be waived for VP. Professional Liability coverage for GHD regarding the integrity of the landfill is in place and we propose it be deemed sufficient compliance with Article 6.f.

# **SOLAR PHOTOVOLTAIC PROJECT at CHILMARK LANDFILL**

## **Appendix A**

### **Individual and Company Qualifications**

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**Richard J. Andre**

P.O. Box 3000, PMB 3133, West Tisbury, MA, 02575

(774)563-86409

Richard@vineyardpower.com

Global business leader with 24 years experience in the energy industry, specializing in leadership, finance, project management, manufacturing and business to business marketing with extensive industry knowledge and senior level contacts. Education and work experience in the USA and Europe.

**EXPERIENCE:**

January 2008 to  
Current

**Vineyard Power Inc, West Tisbury, MA**  
*Founding Board Member & President*

Overall executive responsibility for Vineyard Power, and its affiliates, a community owned renewable energy co-operative that plans to initially build a 40 MW off-shore wind farm off the coast of Martha's Vineyard, MA. The cooperative is also pursuing load management systems that will operate as a distributed energy storage system alongside its renewable generation portfolio.

August 2006 to  
Current

**Cleveland LLC, West Tisbury, MA**  
*Principal*

Consulted several leading private equity firms in evaluating acquisition opportunities and supported management of their portfolio companies.

July 1999 to  
July 2006

**Verdugt, Tiel, The Netherlands**  
*CEO and Managing Director*

Major accomplishments include growing revenue from \$70 million to \$250 million and EBITDA from \$15 million to \$40 million and managed an annual capital expenditure (CapEx) budget of \$15 million. Created \$125 million in shareholder value from an original investment of \$35 million. Was responsible for all functions with a focus on leadership, finance, strategy and key customer and industry relationships.

January 1997 to  
June 1999

**BP, Cleveland, Ohio**  
*Business Manager, Acetyls*

This unit was part of a US \$1 billion leading global business of BP with sales of \$140 million and an EBITDA of \$35 million.

Responsible for the financial performance of the business as well as key relationships, cash flow management, capital expenditure, working capital, fixed cost control and health, safety and environment matters.

July 1994 to  
December 1996

**BP p.l.c., Corporate Centre, London, UK**  
*Planner, Strategy Team*

Responsible for strategic and business planning in support of the CEO and the senior management team of BP. Major Accomplishments included a

complete strategic review of the Chemical Group and its role with the Parent Group, which was subsequently endorsed by the Board of BP p.l.c..

January 1990 to  
June 1994

**BP Chemicals Limited, London, UK**

*Product Manager Vinyl Acetate, Formic-Propionic Acids*

Responsible for managing the business with primary responsibility down to the Gross Margin (contribution) level including shared responsibility for capital expenditure, working capital and fixed cost control.

December 1986 to  
November 1989

**BP Chemicals America, New York, NY**

*Regional Manager Acetyls – USA*

October 1985 to  
November 1986

**Ashland Chemical Inc., Newark, NJ**

*Technical Sales Representative*

**NON-EXECUTIVE EXPERIENCE:**

January 2008 to Current – *Treasurer - Vineyard Energy Project*

The VEP provides education, outreach and advocacy for renewable energy and energy efficiency initiatives for the island of Martha's Vineyard.

July 2008 to March 2009 - *Working Group Member -Massachusetts Zero Net Energy Buildings (ZNEB) Task Force*

Invited by the Undersecretary of Energy to join the ZNEB Task Force to begin deliberations to transform the state's building sector by creating a pathway to net energy building in the Commonwealth. At the direction of Governor Patrick and under the leadership of Energy and Environmental Affairs Secretary Bowles the ZNEB convened its first meeting in July 2008.

**EDUCATION London Business School (LBS), London, UK, 1993-1994**

**& TRAINING:**

Corporate Finance Executive Program

**Ashridge Management College, Ashridge, UK, 1991 & 1993**

Group Corporate Level Strategy and Finance for non-Financial Managers

**College of Petroleum Studies, Oxford, UK, 1990**

Introduction to the Petrochemical Industry

**Pennsylvania State University, State College, PA, 1981-1985**

BSc. Chemical Engineering with minor studies in Political Science

**Bethpage High School, Bethpage NY, 1981**

LANGUAGES: English, Dutch and some German

## **Paul F. Pimentel, P.E.**

PO Box 9000-221  
Edgartown, MA 02539  
(508) 627-7980  
ppimentel@noresco.com

### **Experience**

Vineyard Power Cooperative, Inc. Board Chairman 2009– present

I am the founder and chief architect of this energy cooperative and the energy systems it expects to develop to supply Martha's Vineyard with renewable energy.

NORESCO, LLC. Senior Vice President, Engineering 1996 – present

I am responsible for all design, analysis and verification for this growing \$300 million Energy Savings Performance Contracting company, a wholly owned subsidiary of Carrier Corp. I direct over a hundred professionals through six managers. Administrative activities include recruiting, compensation, manpower planning, utilization, engineering standards, document control, training, business process automation and software development. Professional activities include sales, project scoping, engineering supervision, energy systems analysis, customer relations and quality assurance for all manner of energy efficiency and renewable projects.

Pequod Associates, Inc. President/Owner 1977 – 1996

I founded and led this \$4 million energy engineering firm that focused on industrial applications. In that role, I became a nationally recognized authority in the field of integrated energy efficiency and had the pleasure of conceiving and designing many innovative improvements in energy systems, pollution prevention and industrial process. I speak regularly at major conferences, including those sponsored by the American Water Works Association and U.S. EPA. I designed a chiller control system retrofit at an 800,000-sq.ft. Wang Laboratories plant that earned an ASHRAE Northeast Regional Award for design excellence in 1986. Pequod was acquired by NORESCO in 1996.

Commonwealth of Massachusetts Deputy Secretary of State 1975 – 1977

I managed this 250 person government clerical and regulatory office while on public service leave from Corning. During my tenure, we reduced cost by 15%, increased revenue by 80%, conducted the first statewide census *ever* completed on time and dramatically improved public access.

Corning Glass Works Manufacturing Engineer 1968 – 1975

I held increasingly responsible engineering and management positions at three plants in manufacturing, customer applications, facility management and production planning. I worked on early experiments with participative management models and solved a broad range of industrial problems in materials, processes, labor relations, cost control, and plant maintenance.

U.S. Navy Engineering Officer 1965 – 1968

I managed propulsion, steam generation and auxiliary systems in two ships. Vietnam combat veteran.

### **Education**

BS, Engineering and Applied Physics, Harvard University, 1965  
Engineering Operations School, US Navy, 1966  
Air Controller School, US Navy, 1967

## Registration and Affiliations

Registered Professional Mechanical Engineer: Massachusetts and California  
Past President, New England Chapter of the Association of Energy Engineers  
Director and Past Chairman, Vineyard Energy Project  
Director and Treasurer, Martha's Vineyard Community Services  
Director and Past Chairman, Massachusetts Association of Mental Health  
Past Chairman, Industrial Conservation Committee, American Water Works Association

## Selected Publications

Massachusetts State Building Code Commission, *Lighting Code*, 1982  
Massachusetts Energy Office white paper: *Innovations in Utility Franchising*, 1989  
American Water Works Association paper: *Why Invest in Industrial Water Efficiency*, 1995  
US EPA Software: *WaveSaver* (a water conservation analysis & design suite for hotels); 1999

## Vineyard Power Relevant Project Experience:

Russell Federal Courthouse, Atlanta, GA    New 3,000 ton chiller plant 1999 operational to present

I conceived of and designed a state-of-the-art efficient plant integrated with the building's air distribution and building management system. Part load efficiency approached 0.3 kW/ton. From concept to acceptance testing, this project was executed in eleven months.

US Navy, Virginia Beach, VA,    180,000 lb/hr steam plant    2003 operational to present

I conceived of and designed the gas/oil fired plant at the Naval Amphibious Base, Little Creek. Net efficiency of this state-of-the-art controlled plant is 40% better than the plant it replaced.

US Navy, Guantanamo Bay, Cuba    4.5 MW wind farm    2006 operational to present

I designed the three-tower wind farm with controls integrating into a rebuilt island grid powered by Diesel engine generators we had installed earlier.

US Navy, Yokosuka, Japan    40 MW cogeneration plant    2009 operational to present

I supervised design of this plant serving two electric frequency distribution systems and two steam distribution systems. The two gas combustion turbines and three IC engines are controlled with another state-of-the-art system that integrates this new plant with existing generation on site and Tokyo Electric in a system that saves the Navy \$12 million annually.

Federal Bureau of Prisons, Victorville, CA    1.5 MW wind turbine    2008 operational to present

I supervised design this single turbine installation. I oversaw design of a similar single tower wind system at BOP in Florence, CO.

US Navy, San Diego, CA    800 kW PV system    2007 operational to present

I supervised design of what was the largest car port mounted PV array in the country at the time. It featured a public performance dashboard. I oversaw design of several smaller PV systems in various locations.



## **Erik N. Peckar**

P.O. Box 344, Oak Bluffs, MA 02557  
(703) 244-9585 - Erik@vineyardpower.com

### **EDUCATION**

**The Pennsylvania State University, State College, PA:** BSc

**Study Abroad:** University of South Wales, Australia: All Australia abroad studies included a focus on renewable energy and the importance of naturally replenished energy. Self-designed Independent Study on feasibility for powering the University with solar energy

### **CAREER-RELATED EXPERIENCE**

**General Manager:** Vineyard Power Cooperative Inc., Tisbury, MA, Summer 2010 - Present

Manage day-to-day operations, hire employees, recruit members, maintain web site, write grants, conduct research, responsible for the management of accounts for Coop & its affiliates.

**Manager:** Offshore Ale Company, Restaurant, Oak Bluffs, MA, Spring 2006 - Present

Represent management for the restaurant at all times; liaison between the staff and owners regarding restaurant policies and customer concerns. Produce nightly register cash-outs, including posting credit cards, counting all server sales and handling other fiscal closeouts.

**Volunteer Intern:** Hindu Mandel Hospital, Tanzania, Winter 2006/2007

Learned the process of daily operations in the second largest hospital in Tanzania; listened in with counselors to HIV patients; observed daily surgeries.

**Sales Specialist:** Breckenridge Ski and Ride School, Vail, CO, 2005-2006

Created and packaged ski and snowboard lessons. Worked with a team of top-notch athletes and sales associates; educated others on different terrains for all ages and skill levels.

**Manager Associate:** The Hertz Corporation, Chicago, IL, 2004-2005

Processed car rentals and generated new corporate clients for Hertz Rent a Car, the largest car rental company in the world. Achieved individual sales goals; set Midwest sales record; won a position on the Sales Task Force

### **TRAVEL EXPERIENCE**

Solo travel extensively on all seven continents between 2004 and 2010.

### **ACTIVITIES**

• Contributing Photographer, *The Martha's Vineyard Times* • Participant in the Martha's Vineyard Agricultural Fair Photography Contest (First place ribbon in 2009, 2010)

### **TECHNICAL SKILLS**

Experienced with PC and Macintosh operating systems • Proficient in Microsoft Works, Aperture, Constant Contact, Survey Monkey, Drupal Gardens

John R. Abrams  
PO Box 1260  
West Tisbury MA 02575  
(508) 693-4850  
jabrams@southmountain.com  
www.southmountain.com

**PROFESSIONAL EXPERIENCE:**

- Since 1975, president of South Mountain Co., Inc., an employee owned design/build company with 28 employees and \$9,000,000 annual revenues, responsible for over 100 major renovation and new residential and housing development projects (including the first single family LEED platinum affordable housing in the U.S.) and the installation of over 150 kW of renewable energy generation on Martha's Vineyard.
- 1992 - 1999, a partner and principal of ARC Design Group, an integrated ecological architecture and engineering firm.
- Experienced executive, planner, architectural designer, project manager, and facilitator.
- Experienced speaker and writer about ecological building, affordable housing, employee ownership, and socially responsible business.

**EMPLOYMENT:**

1976 – present President and Founder: South Mountain Company, Inc., West Tisbury, MA  
1992 – 1999 Principal: ARC Design Group, Chilmark, MA

**PROFESSIONAL AWARDS:**

2007 World Blu List of Most Democratic Workplaces  
2007 Fred Case National Entrepreneur of the Year  
2005 Business Ethics National Workplace Democracy of the Year Award  
1998 Northeast Sustainable Energy Association Lifetime Achievement Award  
1982 First Prize: Salem Energy Contest for retrofit passive solar design

**RELATED ACTIVITIES:**

2009 Member: Solar Energy Business Association of New England (SEBANE)  
2008 Massachusetts Governor's Zero-Energy Building Task Force  
2008 – present Green Building Advisor, Taunton Press  
2006 – present Chair: Island Plan Livelihood & Commerce Work Group  
2006 – present Member: Island Plan Steering Committee  
2004 – present Board member: Island Housing Trust  
2000 – present Board Member: Island Affordable Housing Fund ((Past Chair)  
1999 – present Member: Environmental Building News Advisory Board  
2000 – 2001 Member: Martha's Vineyard Sustainability Indicators Steering Committee  
1999 – 2000 Member: West Tisbury Affordable Housing Committee  
1998 Facilitator: Londonderry Ecological Industrial Park Design Charrette  
1995 Facilitator: MV Steamship Authority terminal final design resolution task force  
1994 – 1996 Member: Martha's Vineyard Special Task Force on Transportation  
1994 - 1995 Member: Chilmark School Building Committee  
1993 Co-chair: Building Solutions Conference, Boston, MA  
1991 - 1994 Member: Steering Committee, Quality Building Council of NESEA  
1990 - 1996 Member: Board of Directors, Northeast Sustainable Energy Association  
1989 - 1991 Member: Martha's Vineyard Regional High School Building Committee  
1987 Member: Chilmark Town Hall Building Committee

1985 - 1989 Member: Chilmark Site Review Committee  
1985 - 1987 Member: Martha's Vineyard Regional Refuse District  
1984 - 1985 Member: Board of Directors, Martha's Vineyard Community Services  
1983 - 1989 Member: Chilmark Board of Health  
1979 - 1980 Founding Board Member: Cape and Islands Self-Reliance Corporation  
1976 - 1990 Founding Board Member/President: Energy Resource Group of MV

**AUTHOR:**

• COMPANIES WE KEEP: Employee Ownership and the Business of Community and Place, Chelsea Green Publishing, 2008

• Articles published in the following journals:

- Business Ethics
- Fine Homebuilding
- Environmental Building News
- Journal of Light Construction
- In Business

**AFFILIATIONS:**

- B-Corp
- Northeast Sustainable Energy Association (NESEA)
- North American Timber Framers Guild [NATFG]

**EDUCATION:**

1967 - 1968 Wesleyan University, Middletown, CT  
1970 - 1971 Wesleyan University, Middletown, CT  
1969 - 1970 Marlboro College, Marlboro, VT  
1975 - 1976 Boston Architectural Center  
Current Massachusetts Licensed Construction Supervisor

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**PROFESSIONAL EXPERIENCE:**

Director of Engineering, South Mountain Company, West Tisbury, MA  
2010 - Present

Principal & Founder, Energysmiths, Meriden NH  
1979 - Present

Provides integrated systems approach to creating environmentally sound, solar, resource efficient buildings and communities.

Services include:

- Consulting Integrated design process design, sustainability goals and metrics, sustainable design strategies, solar utilization, energy- efficient design and construction, healthy building design and construction, energy use analysis and computer modeling, ventilation and moisture issues, indoor air quality, resource efficient materials, and energy conservation strategies to architects, builders, utilities, government agencies, home manufacturers, cohousing groups, and building owners and operators.
- Education Workshops, training, courses, and articles on topics listed above

**PROFESSIONAL CERTIFICATIONS:**

Licensed Professional Engineer  
Mechanical Engineering and HVAC. Licensed in New Hampshire, Vermont, Maine, and Massachusetts.  
LEEDTM Accredited Professional  
U.S. Green Building Council

**PROFESSIONAL AWARDS:**

2000 ASHRAE Technology Award First Place  
2001 ASHRAE Technology Award Second Place  
2000, 2004 AIA Earth Day Top Ten Project  
1992, 1996, 2000, 2003, 2004 Sustainable Design Award - Northeast Sustainable Energy Assoc.  
1991 Best Energy Efficient House Design Award - Energy and Environmental Building Assoc

**PUBLICATIONS:**

Articles in ASHRAE Journal, Fine Homebuilding, Journal of Light Construction, Solar Today, Northeast Sun, Northwest Builder, and Bicycling! on topics including sustainable design solutions, integrated architectural/engineering design approach, solar hot water systems, active solar buildings, low cost energy efficient construction techniques, low cost ventilation systems, computer energy analysis tools, blower doors, troubleshooting building failures, and very lightweight bicycles.

**SPEAKER/TRAINER:**

Trainer for Utility-sponsored energy efficient construction workshops in CT, MA, NH, and RI. Speaker for USGBC, Build Boston, AIA NH, AIA VT, AIA CT, NAHB National Conference, NESEA Quality Building Conference, American Solar Energy Society Annual Conference, World Conference on Innovative Housing, EEBA Excellence in Housing Conference, Timber Framers of North America Conference, Building With Value '93, VT Contractor's Conference, Energy Association of NH, Montshire Museum of Science, Eastern North America Permaculture Conference. Certified to teach Passive Solar Design by the Passive Solar Industries Council.

**AFFILIATIONS:**

Lifetime Member - Northeast Sustainable Energy Assoc.; American Solar Energy Society; ASHRAE; Environmental Building News (Advisory Board member).

**RELATED ACTIVITIES:**

Designed and built own home - features include passive solar and wood-fired space heat and domestic hot water, solar greenhouse, utility-interactive solar electricity, root cellar, low energy use lighting, heat recovery ventilation, raised bed organic garden, and low water use fixtures.

**EDUCATION:**

Massachusetts Institute of Technology, Cambridge, MA

Master of Science. Thesis entitled, "Preliminary Analysis of Methods for Governing a Darrieus Windmill," Sept. 1975.

Massachusetts Institute of Technology, Cambridge, MA

Bachelor of Science in Mechanical Engineering. Thesis entitled, "Design and Construction of an Ultralight Track Bicycle," June 1974.