

Town and County of Nantucket
Board of Selectmen • County Commissioners

James R. Kelly, Chairman
Rick Atherton
Robert R. DeCosta
Matt Fee
Dawn E. Hill Holdgate



16 Broad Street
Nantucket, Massachusetts 02554

Telephone (508) 228-7255
Facsimile (508) 228-7272
www.nantucket-ma.gov

C. Elizabeth Gibson
Town & County Manager

**AGENDA FOR THE MEETING OF THE
BOARD OF SELECTMEN
NOVEMBER 2, 2016 - 6:00 PM
PUBLIC SAFETY FACILITY COMMUNITY ROOM
4 FAIRGROUNDS ROAD
NANTUCKET, MASSACHUSETTS**

I. CALL TO ORDER

II. BOARD ACCEPTANCE OF AGENDA

III. ANNOUNCEMENTS

1. The Board of Selectmen Meeting is Being Video/Audio Recorded.
2. Easy Street Bulkhead Reconstruction Project Ongoing; Easy Street Closed through End of December.
3. Veteran's Day Observance Ceremony to be Held Friday, November 11, 2016 at 10:30 AM at Federal Street Memorial Adjacent to Town Building (in Case of Inclement Weather, Ceremony will Take Place at American Legion Hall).
4. Town Clerk: Voter Registration Deadline for December 6, 2016 Special Town Election is Wednesday, November 16, 2016 at 8:00 PM.
5. Town Clerk: Early Voting for the 2016 State Election will Occur at the Town Building, 16 Broad Street from Monday, October 24, 2016 through Friday, November 4, 2016 from 8:00 AM to 4:00 PM. The Central Tabulation Facility will be at the Nantucket High School, 10 Surfside Road on Tuesday, November 8, 2016 from 7:00 AM to 8:00 PM.
6. 2017 Annual Town Meeting Warrant is Open for Citizen Warrant Article Submittals through November 21, 2016 at 4:00 PM.

IV. PUBLIC COMMENT*

V. NEW BUSINESS*

VI. APPROVAL OF MINUTES, WARRANTS AND PENDING CONTRACTS

1. Approval of Minutes of October 26, 2016 at 6:00 PM.
2. Approval of Payroll Warrants for Week Ending October 30, 2016.
3. Approval of Treasury Warrants for November 2, 2016.
4. Approval of Pending Contracts for November 2, 2016.

VII. CONSENT ITEMS

1. Gift Acceptance: Natural Resources Department; Our Island Home; Human Services (Saltmarsh Senior Center).

VIII. CITIZEN/DEPARTMENTAL REQUESTS

1. Finance Department: Request for Approval of Sale of \$11,347,962 General Obligation Bond Anticipation Notes for Airport, Our Island Home, Wannacomet Water Company, Sewer and General Fund (General Fund includes Fire Station).
2. Finance Department: Request for Approval of Sale of \$37,423,000 General Obligation Bonds for Airport, Our Island Home, Wannacomet Water Company, Sewer and General Fund (General Fund includes School).

IX. TOWN MANAGER'S REPORT

1. Nantucket Harbor/Shimmo/Plus Parcels Sewer Project Design Status Review; Review Scope of Overall Project.
2. Energy Office: Quarterly Energy Report; Municipal Aggregation Pricing Presentation.

X. SELECTMEN'S REPORTS/COMMENT

1. Appointment of Citizen-at-Large and Selectmen Representative for Our Island Home Work Group as Voted at the October 17, 2016 Special Town Meeting.
2. Vote on Jetties Concession and Retail Shop Term Sheet.
3. Committee Reports.

XI. ADJOURNMENT

**** Identified on Agenda Protocol Sheet***

Board of Selectmen Agenda Protocol:

- **Roberts Rules:** *The Board of Selectmen follows Roberts Rules of Order to govern its meetings as per the Town Code and Charter.*
- **Public Comment:** *For bringing matters of public interest to the attention of the Board. The Board welcomes concise statements on matters that are within the purview of the Board of Selectmen. At the Board's discretion, matters raised under Public Comment may be directed to Town Administration or may be placed on a future agenda, allowing all viewpoints to be represented before the Board takes action. Except in emergencies, the Board will not normally take any other action on Public Comment. Any personal remarks or interrogation or any matter that appears on the regular agenda are not appropriate for Public Comment.*

Public Comment is not to be used to present charges or complaints against any specifically named individual, public or private; instead, all such charges or complaints should be presented in writing to the Town Manager who can then give notice and an opportunity to be heard to the named individual as per MGL Ch. 39, s 23B.

- **New Business:** *For topics not reasonably anticipated 48 hours in advance of the meeting.*
- **Public Participation:** *The Board welcomes valuable input from the public at appropriate times during the meeting with recognition by the Chair. For appropriate agenda items, the Chair will introduce the item and take public input. Individual Selectmen may have questions on the clarity of information presented. The Board will hear any staff input and then deliberate on a course of action.*
- **Selectmen Report and Comment:** *Individual Selectmen may have matters to bring to the attention of the Board. If the matter contemplates action by the Board, Selectmen will consult with the Chair and/or Town Manager in advance and provide any needed information by the Thursday before the meeting. Otherwise, except in emergencies, the Board will not normally take action on Selectmen Comment.*

EXHIBIT 1
AGREEMENTS TO BE EXECUTED BY TOWN MANAGER
UNLESS RESOLUTION OF DISAPPROVAL BY BOARD OF SELECTMEN
November 2, 2016

Type of Agreement/Description	Department	With	Amount	Other Information	Source of Funding
Contractor Services	Town Admin/Board of Selectmen	KJP Land & Environment	\$15,547.74	Land clearing in preparation for new road for 6 Fairgrounds Road housing development project	NP&EDC/DLTA Annual Grant
Grant Agreement	Town Admin	Commonwealth of Massachusetts/ Mass. Cultural Council	(\$4,400)	Annual grant from state to Town; funds distributed through Nantucket Cultural Council	Commonwealth of Massachusetts/ Mass. Cultural Council
Construction Contract	DPW	Victor-Brandon Corp.	\$568,790	Milk Street Bike Path Extension construction and paving	Article 10/2015 ATM (Milk St Bike Path Extension) Article 10/2016 ATM (Island-wide Roadwork)

Easy Street Bulkhead Construction October 17 to December 30

No parking to allow for two-way traffic

No parking on the south side to allow for truck traffic

No parking to allow trucks room to turn

No parking to allow for truck traffic

No parking to allow for two-way traffic to SSA

Easy Street Bulkhead Construction Area
No Vehicle or Pedestrian Access

Traffic Reversed
No parking on the north side of the street

Legend

-  Signs
-  Closed To All Traffic
-  No Parking
-  Traffic Reversed
-  Parcels

1 inch = 91 feet
0 85 0 170 Feet

Data Sources:
The planimetric data on this mapsheet is based primarily upon interpretation of April, 2013 aerial photography. It was compiled to meet the ASPRS Standard for Class 1 Map Accuracy for 1"=100' scale maps.
The parcel boundaries are based primarily upon the Tax Assessor's data through December, 2014.
Please send identification of any errors and corresponding corrections to:
GIS Coordinator
Town of Nantucket
2 Fairgrounds Rd
Nantucket, MA 02554

Town of Nantucket GIS Mapsheet

Nantucket governmental agencies will not necessarily approve applications based solely on GIS data. Applicants for permits and licenses must inquire of the relevant agency for applicable requirements.
The presence of information on this mapsheet does not necessarily imply public right-of-way or the right of public access.
The data on this mapsheet represents the efforts of the Town of Nantucket and other cooperating organizations to record and compile pertinent geographical and related information utilizing the capabilities of the Nantucket Geographic Information System (GIS). The GIS staff maintains an ongoing program to record and correct errors in these data that are brought to its attention. The Town of Nantucket makes no claims as to the absolute validity or reliability of these data or their fitness for any particular use.

Town of Nantucket



OFFICE OF THE
**TOWN & COUNTY
CLERK**
16 Broad Street
NANTUCKET, MASSACHUSETTS 02554-3590

Catherine Flanagan Stover, MMC, CMMC
Town & County Clerk

(508) 228-7216

FAX (508) 325-5313

Home: (508) 228-7841

Email: cstover@nantucket-ma.gov
townclerk@nantucket-ma.gov

WEBSITE: <http://www.nantucket-ma.gov>



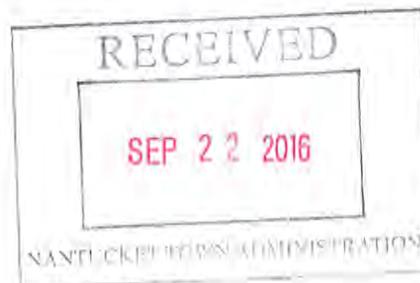
September 22, 2016

Dear Mr. Kelly:

Would you please place the following announcement on the agenda for the Selectmen's meetings of November 2nd, 9th and 16th:

The Voter Registration deadline for the December 6, 2016 Special Town Election will be Wednesday November 16th at 8 PM. Please use the Federal Street entrance after 4 PM.

Many thanks for your kind assistance and support.



CONSENT AGENDA ITEMS FOR 11/02/16 SELECTMEN'S MEETING

1. Gift Acceptances

Recommend the acceptance of the following gifts to Town agencies:

-- Natural Resources Dept: \$100 from proceeds of the late Linda Zarella's book *Sea Saw* for Brant Point Shellfish Propagation Facility

-- Our Island Home: Gifts from various donors totaling \$2,542.23 for Our Island Home Gift Account

-- Human Services: Gifts from various donors totaling \$49,499.03 for Saltmarsh Senior Center

Recommended Motion: To accept all gifts for their designated purposes, with thanks to the donors

Town Administration will ensure that letters of thanks are sent.

TOWN OF NANTUCKET NATURAL RESOURCES DEPARTMENT

2 BATHING BEACH ROAD
NANTUCKET, MA 02554

(508) 228-7230



Board of Selectmen
16 Broad Street
Nantucket, MA 02554
10/18/2016

Dear Board Members,

On behalf of the Natural Resources Department we are requesting that the Board of Selectmen accept a gift of \$100.00 from proceeds of the late Linda Zarella's book *Sea Saw*. This donation will be put towards the Shellfish Hatchery.

We will be in attendance at the upcoming meeting of the Board to answer any questions that you have in regards to this gift and program. Thank you for your attention to this matter.

Sincerely,

Jeff Carlson,
Town of Nantucket
Natural Resources Coordinator



OUR ISLAND HOME

9 East Creek Road
Nantucket, Massachusetts 02554
(508) 228-0462
FAX (508) 228-6875

October 25, 2016

Nantucket Board of Selectmen
Nantucket, MA. 02554

Dear Chairman Kelly,

I am writing to request that the Board accept the following gifts for Our Island Home:

- A check in the amount of \$206.54 from Nancy Chase.
- A check in the amount of \$500.00 from Michael & Katherine Costa.
- A check in the amount of \$1,835.69 from James David.

All donations will go to the Our Island Home Gift Account and the funds will be used to assist in means to enrich the daily lives of our residents.

Thank you in advance for your acceptance.

Sincerely,

Rachel K. Chretien, NH Administrator
Our Island Home



MEMO

Date: October 25, 2016

TO: Rick Atherton

FROM: Laura Stewart, Saltmarsh Senior Center, Program Coordinator

RE: Request for acceptance of gift

I am writing to request acceptance of the following gift donation:

From Nancy Chase: \$48,177.32 to the Saltmarsh Senior Center

From Nancy Chase (interest accrued): \$171.71 to the Saltmarsh Senior Center

From Bill and Margaret Tramosch: \$100.00 to the Saltmarsh Senior Center

From Ronald and Mary Zibelli: \$100.00 to the Saltmarsh Senior Center

From Joan and Herbert Goldberg: \$250.00 to the Saltmarsh Senior Center

Ann Kellogg: \$100.00 to the Saltmarsh Senior Center

George & Sally Williamson: \$500.00 to the Saltmarsh Senior Center

Shirley & Jeremiah Smith: \$100.00 to the Saltmarsh Senior Center

Thank you,

Laura Stewart

from the desk of.....

**Laura Stewart
Program Coordinator,
Senior Services
81 Washington Street
Nantucket, MA 02554
508-228-4490**

**phone: 508-228-4490
fax: 508-325-5366
e-mail: lstewart@nantucket-ma.gov**

VOTE OF THE BOARD OF SELECTMEN

I, the Clerk of the Board of Selectmen of the Town of Nantucket, Massachusetts (the “Town”), certify that at a meeting of the board held November 2, 2016, of which meeting all members of the board were duly notified and at which a quorum was present, the following votes were unanimously passed, all of which appear upon the official record of the board in my custody:

Voted: that the sale of the \$37,423,000 General Obligation Municipal Purpose Loan of 2016 Bonds of the Town dated November 9, 2016 (the “Bonds”), to Robert W. Baird & Co., Inc. at the price of \$39,259,106.96 and accrued interest, if any, is hereby approved and confirmed. The Bonds shall be payable on November 1 of the years and in the principal amounts and bear interest at the respective rates, as follows:

<u>Year</u>	<u>Amount</u>	<u>Interest Rate</u>	<u>Year</u>	<u>Amount</u>	<u>Interest Rate</u>
2017	\$ 493,000	2.00%	2029	\$1,525,000	3.00%
2018	1,075,000	2.00	2030	1,570,000	3.00
2019	1,095,000	4.00	2031	1,615,000	3.00
2020	1,075,000	2.00	2033	3,370,000	3.00
2021	1,110,000	5.00	2034	1,760,000	3.00
2022	1,165,000	5.00	2035	1,810,000	3.00
2023	1,220,000	5.00	2036	1,865,000	3.00
2024	1,275,000	5.00	2037	1,835,000	3.00
2025	1,330,000	5.00	2038	1,890,000	3.00
2026	1,395,000	5.00	2039	1,945,000	3.00
2027	1,445,000	3.00	2041	4,075,000	3.125
2028	1,485,000	3.00			

Further Voted: that the Bonds maturing on November 1, 2033 and November 1, 2041 (each, a “Term Bond”) shall be subject to mandatory redemption or mature as follows:

Term Bond due November 1, 2033

<u>Year</u>	<u>Amount</u>
2032	\$1,660,000
2033*	1,710,000

*Final Maturity

Term Bond due November 1, 2041

<u>Year</u>	<u>Amount</u>
2040	\$2,005,000
2041*	2,070,000

*Final Maturity

Further Voted: to approve the sale of a \$11,347,962 2.00 percent General Obligation Bond Anticipation Note of the Town dated November 10, 2016, and payable June 2, 2017 (the "Notes"), to J.P. Morgan Securities LLC at par and accrued interest, if any, plus a premium of \$79,889.65.

Further Voted: that in connection with the marketing and sale of the Bonds, the preparation and distribution of a Notice of Sale and Preliminary Official Statement dated October 12, 2016, and a final Official Statement dated October 19, 2016 (the "Official Statement"), each in such form as may be approved by the Town Treasurer, be and hereby are ratified, confirmed, approved and adopted.

Further Voted: that in connection with the marketing and sale of the Notes, the preparation and distribution of a Notice of Sale and Preliminary Official Statement dated October 12, 2016, and a final Official Statement dated October 19, 2016, each in such form as may be approved by the Town Treasurer, be and hereby are ratified, confirmed, approved and adopted.

Further Voted: that the Bonds shall be subject to redemption, at the option of the Town, upon such terms and conditions as are set forth in the Official Statement.

Further Voted: that the Town Treasurer and the Board of Selectmen be, and hereby are, authorized to execute and deliver continuing and significant events disclosure undertakings in compliance with SEC Rule 15c2-12 in such forms as may be approved by bond counsel to the Town, which undertakings shall be incorporated by reference in the Bonds and Notes, as applicable, for the benefit of the holders of the Bonds and Notes from time to time.

Further Voted: that we authorize and direct the Treasurer to establish post issuance federal tax compliance procedures in such form as the Treasurer and bond counsel deem sufficient, or if such procedures are currently in place, to review and update said procedures, in order to monitor and maintain the tax-exempt status of the Bonds and Notes.

Further Voted: that each member of the Board of Selectmen, the Town Clerk and the Town Treasurer be and hereby are, authorized to take any and all such actions, and execute and deliver such certificates, receipts or other documents as may be determined by them, or any of them, to be necessary or convenient to carry into effect the provisions of the foregoing votes.

I further certify that the votes were taken at a meeting open to the public, that no vote was taken by secret ballot, that a notice stating the place, date, time and agenda for the meeting (which agenda included the adoption of the above votes) was filed with the Town Clerk and a copy thereof posted in a manner conspicuously visible to the public at all hours in or on the municipal building that the office of the Town Clerk is located or, if applicable, in accordance with an alternative method of notice prescribed or approved by the Attorney General as set forth in 940 CMR 29.03(2)(b), at least 48 hours, not including Saturdays, Sundays and legal holidays, prior to the time of the meeting and remained so posted at the time of the meeting, that no deliberations or decision in connection with the sale of the Bonds and Notes were taken in executive session, all in accordance with G.L. c.30A, §§18-25 as amended.

Dated: November 2, 2016

Clerk of the Board of Selectmen

AM 59423208.1



Town of Nantucket Nantucket Harbor Shimmo & Plus Parcels Sewer Project



Project Update Presentation
to the Nantucket Board of Selectmen

November 2, 2016



Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers

Project Team:

- Nantucket Public Works
 - Kara Buzanoski, Director
 - David Gray, Chief Operator
- Weston & Sampson
 - Kent Nichols
 - Daniel Sheahan
 - Laurie Toscano
- Owner's Manager
 - Frank Ayotte, Hazen-Sawyer
- Construction Contractor (TBD)





Town of Nantucket

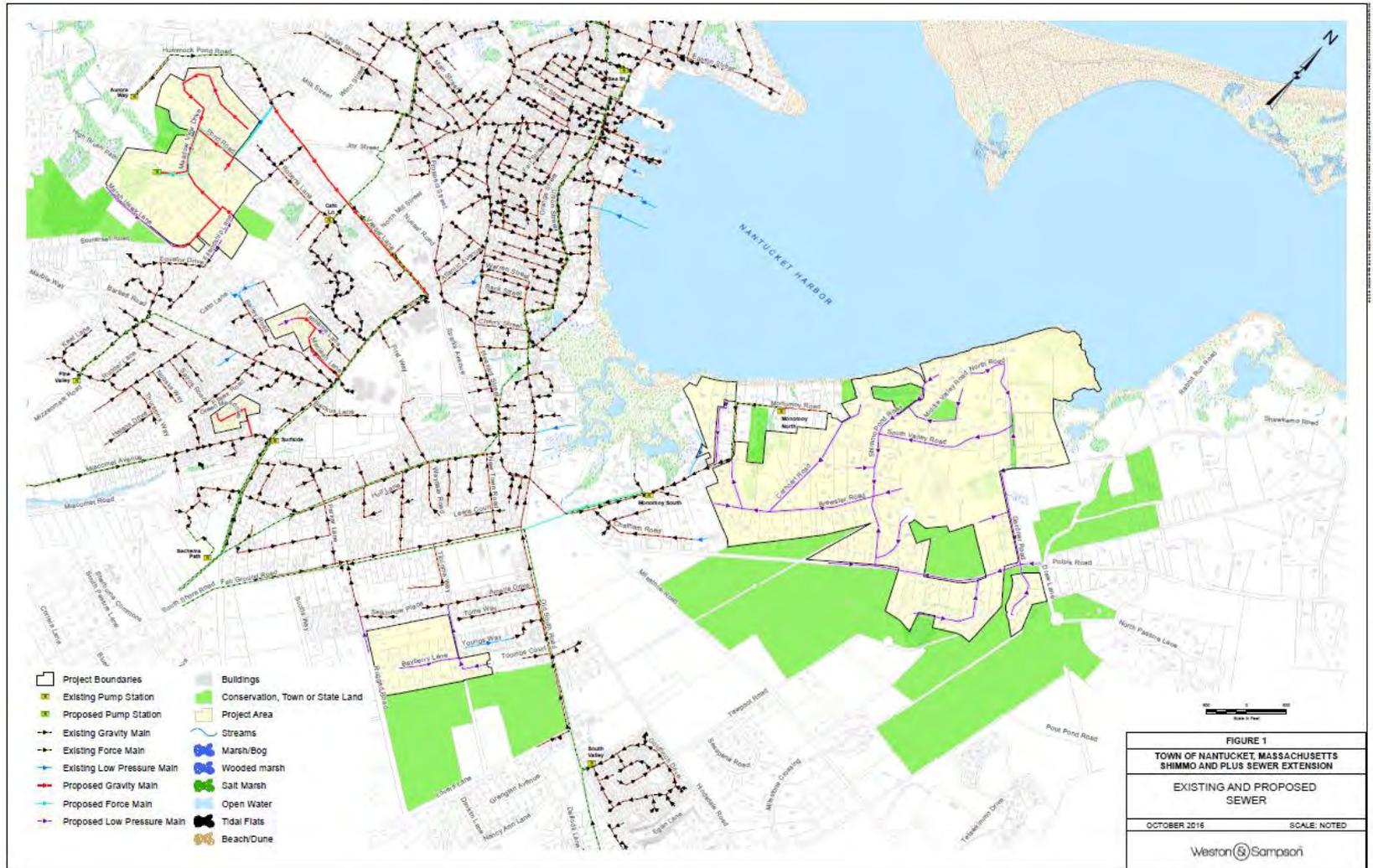
Nantucket Harbor Shimmo & Plus Sewers

Project Scope of Work:

- CWMP Recommended Sewer Project as Voted by Nantucket Town Meeting, April 2016
- Nantucket Harbor Shimmo Area (181 parcels)
- Plus Sewer Areas
 - Meadowview Drive Area (99 parcels)
 - Bayberry Lane Area (30 parcels)
 - Tashama Lane Area (33 parcels)
 - Green Meadows Area (16 parcels)



Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers





Town of Nantucket

Nantucket Harbor Shimmo & Plus Sewers

Project Scope of Work:

- Conventional Gravity Sewer (approx. 12,400 feet)
Meadowview, Tashama & Green Meadows Areas
- Low Pressure Sewers (approx. 36,600 feet)
NH Shimmo Area & Bayberry Area
 - LP Approach Required due to Topography
 - System Requires Individual Pump Units for Each Home
- Challenges:
 - Private Road Alignments & Easements
 - Refining Downstream Capacity
 - 'Wandering' Utilities in Private Roads

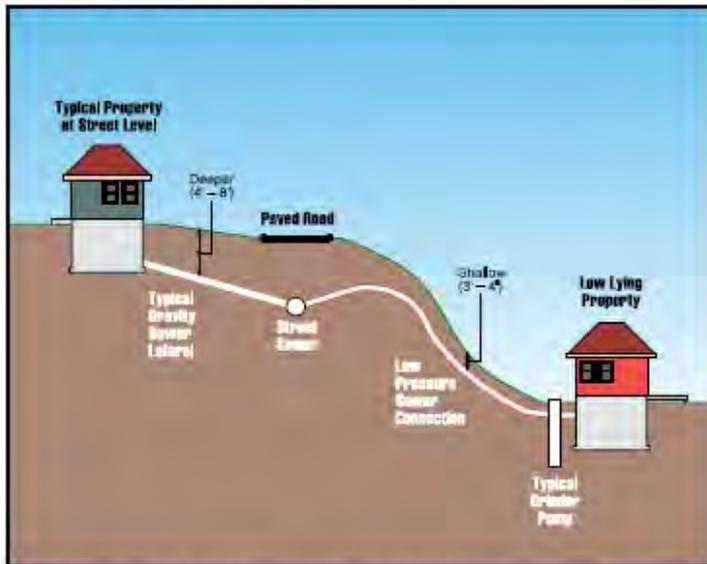


Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers

Gravity Sewer v. Low Pressure

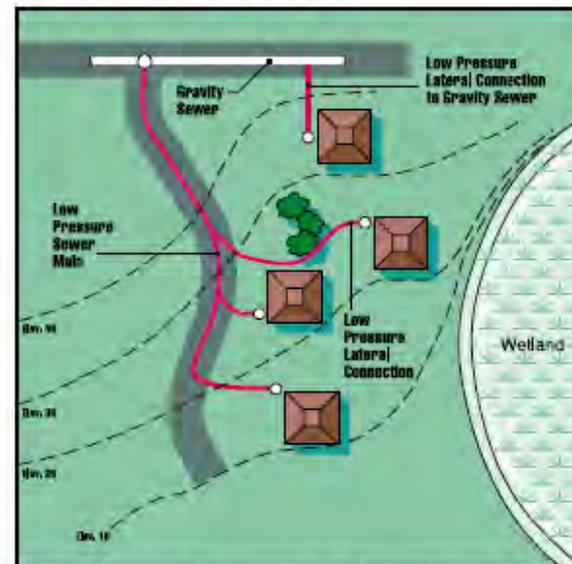
Circumstances that require the use of residential grinder pump units and/or low pressure sewers

1 Grinder pump and low pressure service connection to gravity sewer main



Required where properties are at elevations significantly lower than that of the street surface.

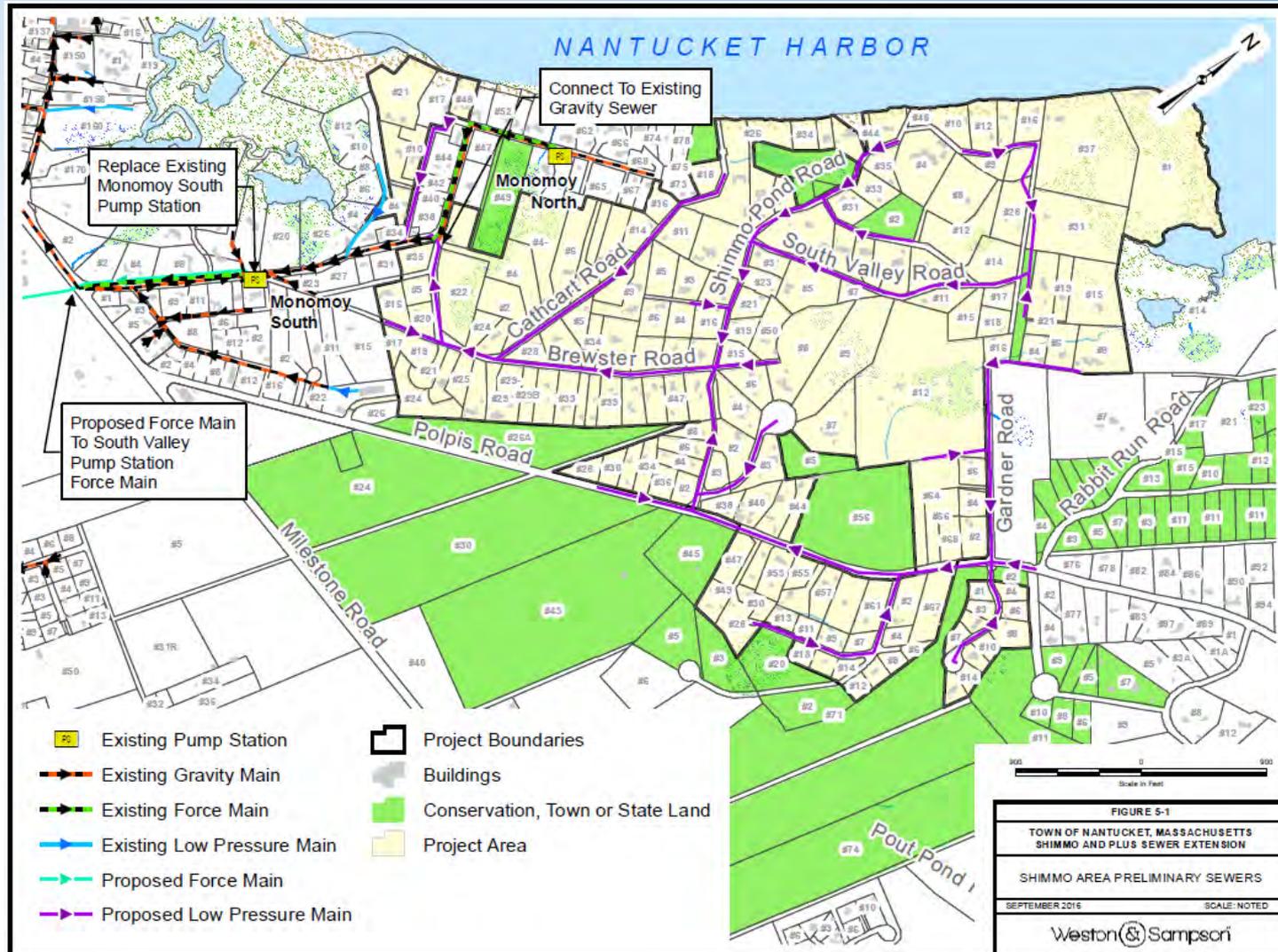
2 Low Pressure Sewer System



Required for roadways that fall off significantly in elevation.

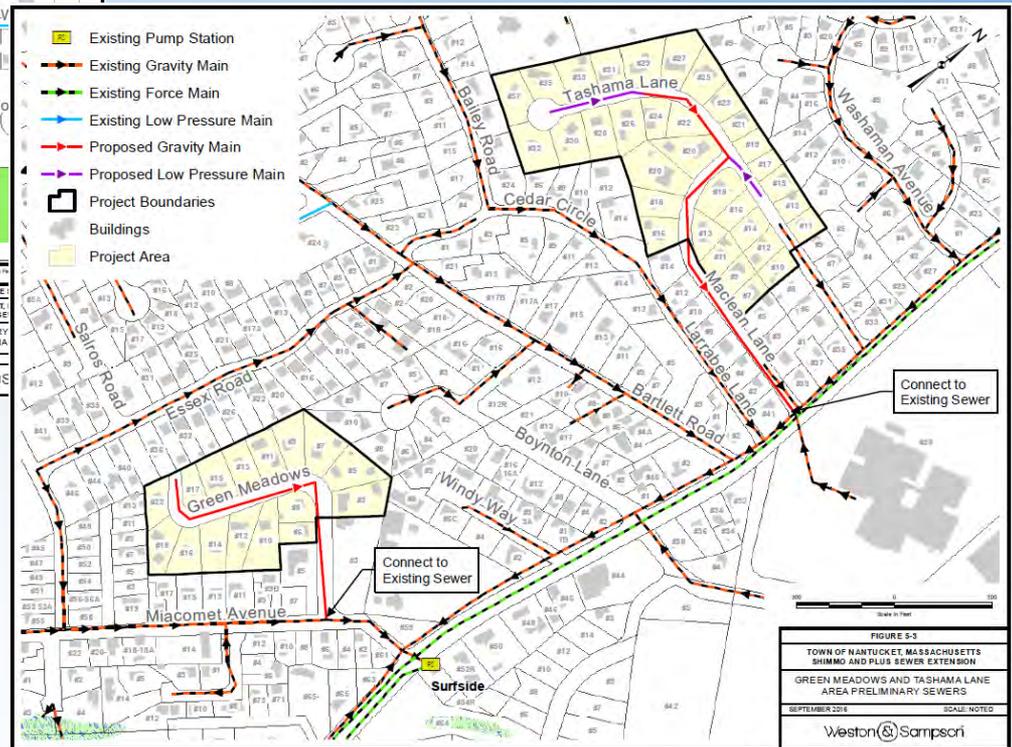


Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers



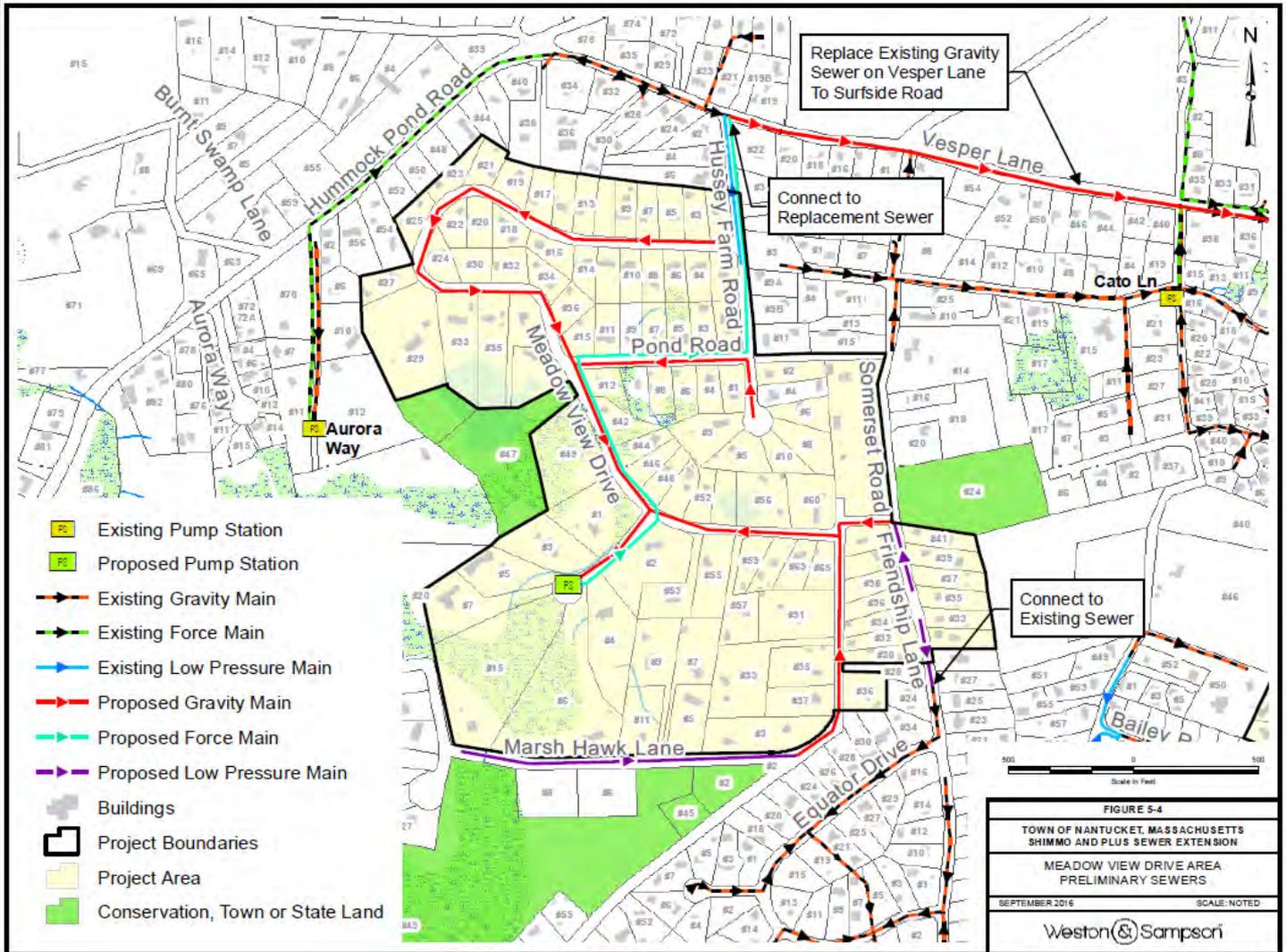


Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers





Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers





Town of Nantucket
Nantucket Harbor Shimmo & Plus Sewers

Anticipated Project Schedule:

- Town Meeting Approval April 2016
- Design Contract Executed June 2016
- Basis of Design Report (Draft) August 2016
- DEP Design Documents Submitted October 2016
- Finalize Design & Permitting Ongoing
- Receive Construction Bids April/May 2017
- Award Construction Contract May/June 2017
- Construction Start September 2017
(Construction will Avoid Summer 2018 Season)
- Construction Complete October 2018



Town of Nantucket Nantucket Harbor Shimmo & Plus Sewers

Questions



Town of Nantucket, Massachusetts
Nantucket Harbor Shimmo & Plus Parcels Sewer Project

Summary of Sewer Design Project

Streets included in the proposed sewer project:

NH Shimmo Area -

Berkeley Av	Boston Av	Brewster Rd	Cathcart Rd
Gardner Rd	Harbor View Dr	Juniper Hill	Kelley Rd
Middle Valley Rd	Moors End Ln	North Rd	Pippen's Way
Polpis Rd	Shawkemo Rd	Shimmo Pond Rd	South Valley Rd

Plus Parcels Areas -

Bayberry Ln	Dooley Ct	Friendship Ln	Green Meadows Dr
Hussey Farm Rd	MacLean Ln	Marsh Hawk Ln	Meadow View Dr
Pinkham Cir	Pond Rd	Rugged Rd	Somerset Rd
Tashama Ln	Ticcoma Way	Wamasquid Pl	

Number of properties/homes to be served by the project, and design flows:

NH Shimmo Area – 181 parcels (166 with existing homes)
Plus Parcels Areas – 178 parcels (166 with existing homes)
Project Wastewater Flows - ~90,000 gallons per day, average daily flow (~500,000 gpd, peak)

Scope of sewer work included in the project:

NH Shimmo Area -

New Low Pressure Sewer Mains	25,400 feet
Sewer Pump Station Replacement	One (Monomoy South PS)
New Sewer PS Force Mains	2,200 feet

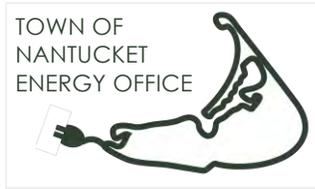
Plus Parcels Areas -

New Gravity Sewer Mains	8,700 feet
Gravity Sewer Main Replacement	3,700 feet (Vesper Ln/Hummock Pond Rd)
New Low Pressure Sewer Mains	6,200 feet
New Sewer Pump Station	One PS (Wamasquid Place PS)
New Sewer PS Force Mains	2,800 feet

Town project work will include installation of pump stations, sewer mains and services within the roadway, right-of-way or easement limits. Property owners will be responsible for service connections from the edge of roadway/property line to the homes. For low pressure sewers, property owners will be responsible to purchase, install and maintain individual grinder pump units.

Project Schedule:

The sewer design effort commenced in June 2016. Design documents and funding application was submitted to MA DEP on October 17, 2016. Continuing refinement of the design and related tasks (including downstream analysis) are ongoing. The town currently intends to bid the project in spring 2017. Physical construction would commence in September 2017 and be complete by fall 2018 (with no work during the 2018 summer season).



MEMORANDUM

TO: Libby Gibson, Town Manager
FROM: Lauren Sinatra, Energy Coordinator
RE: Update of Energy Office Activities: 1st Quarter of FY2017
DATE: October 26, 2016

This memorandum provides a brief summary update of the ongoing activities of the Energy Office through the first quarter (Q1) of FY2017 (July 1, 2016 through September 30, 2016). Lauren Sinatra, the Town's Energy Coordinator, will be prepared to discuss these items with the Board of Selectmen on November 2, 2016.

Announcements

- A new record level peak load occurred on Sunday, August 14, 2016 at 6:00pm, reaching 48MW (up from previous peak load of 44MW on August 4, 2015). National Grid is analyzing the summer weather to determine the severity of the heat wave as compared to historic weather patterns. Preliminary indications point to an extreme or near-extreme summer weather pattern.
- On October 25, 2016 the Baker-Polito Administration announced the launch of the **Commonwealth Energy Tool for Savings (energyCENTS)**, a web-platform that provides a single entry point to all of the energy saving opportunities available to Massachusetts residents, businesses and institutions, including rebates, loans and financing for electric vehicles, appliances, home energy assessments, and solar electricity. See: <http://web1.env.state.ma.us/Doer/mesa/#/home>
- National Grid basic service (electric supply) rates will be rising in November (until April 2017) to **9.745 ¢/kWh**; a 21% increase over the current rate (8.042¢/kWh), **but** 26% less than last year's winter rate (13.129¢/kWh).
- National Grid is delaying October bills by about two weeks as the utility calculated a distribution rate increase recently approved by the Department of Public Utilities (DPU) that took effect on Oct. 1. Residential ratepayers can expect to see a 7% increase, or \$7.75 per month for a customer who uses 500 kilowatt hours of electricity. In justifying the increase, National Grid claimed its revenues no longer cover the company's costs to operate and maintain the poles and wires that deliver electricity to homes and businesses.

- The DPU launched a new website: “**Energy Switch Massachusetts**,” to assist consumers in shopping for 3rd party electric supply products. Although the Energy Office was successful in for lobbying for a “Nantucket Electric” search category, only three Nantucket-approved suppliers (out of 14) show up on the market place exchange: <http://www.energyswitchma.gov/#/>
- A new 24-month municipal electric supply contract with Nextera, which was bid and awarded in March, becomes effective in November. Supply rates for the Town electric accounts will be decreasing from \$.10703/kwh to \$.08292/kwh.

Supplier	Term	Volume (kWh)	Old Price (kWh)	New Price (kWh)	Total Savings
NextEra	24-months	24,227,468	\$0.10703	\$0.08292	\$584,124.25

Municipal Facilities: Energy Efficiency and Conservation Efforts

1. Monitoring of Municipal energy consumption*

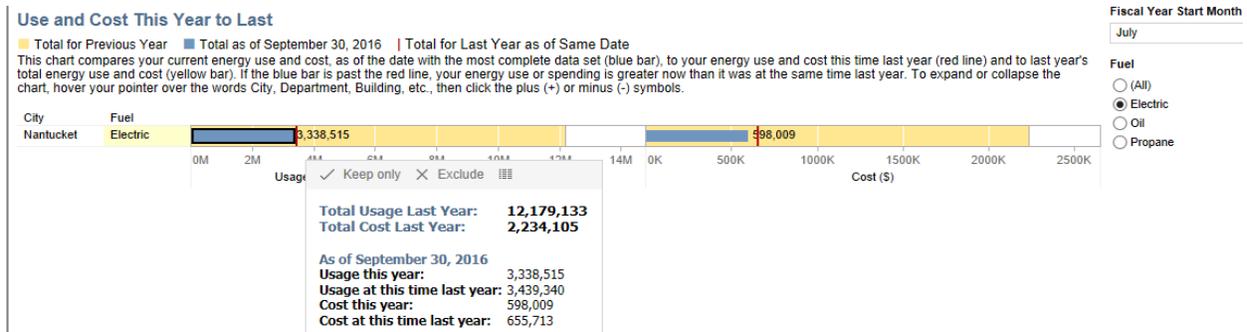
	Q1- FY2015	Q1- FY2016	Q1- FY2017	Difference in Use FY16 vs. FY17	Difference in Cost FY16 vs. FY17
Electricity, kWh	3,157,229	3,439,340	3,338,515	-3%	-6%
Heating oil, gallons	3,805	1,930	3,194	65%	64%
Propane, gallons	5,069	3,155	5,214	67%	55%

*Source: MassEnergyInsight data totals as of September 30, 2016, based upon National Grid data (automatically updated in software on a monthly basis), and quarterly delivery records supplied by Yates Gas and Harbor Fuel (manually input by Energy Coordinator).

- **Oil:** The High School had no September delivery in Q1 FY16 like it did in FY2015 and FY2017. Oil usage in Q1FY2017 is similar, in fact less than in Q1FY2015, which indicates warmer September temperatures and delayed delivery schedules in 2016 has skewed Q1FY2016 usage data against the heating oil baseline.

- Propane:** The Nantucket High School Pool’s propane usage was 80% higher this September (+2,100 gallons) and 4FG used 66% Less Propane (371 vs. 1178 gallons) compared to last year. Usage in Q1FY2017 is similar to that of Q1FY2015, indicating that warmer September temperatures and delayed delivery schedules in 2016 has skewed Q1FY2016 usage data against the propane baseline.

- Electricity:**

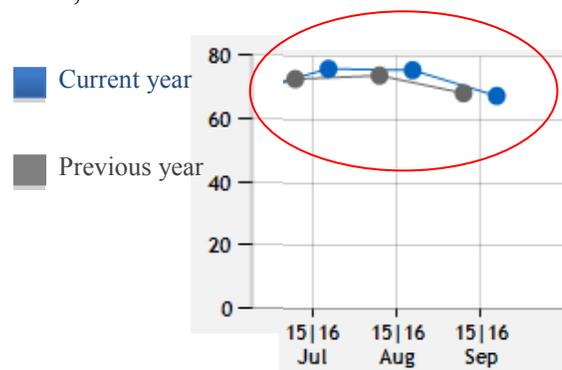


Notable trends: There were above average temperatures in Nantucket during July, August and September of both 2015 and 2016, with slightly higher temperatures this year. As a result, similar electric consumption could be assumed, although a 3% decrease in Q1FY17 was measured.

Reports indicate the following trends:

- 16% decrease at Surfside Wastewater Treatment Plant, less “dewatering” processes
- 13% decrease at Airport terminal
- 21% decrease at Nantucket Elementary School
- 14.5% decrease at 4FG/ Public Safety Facility
- 8% decrease at PLUS (new wifi control of AC)
- 6% decrease at Town Building
- 11% increase at Nantucket High School
- 8% increase at Compost Digester

Temperatures



2. Energy assessments and energy efficiency upgrades at Municipal facilities

The Energy Office continues to encourage and offer support for the installation of energy saving (incentivized) measures and upgrades at:

- **Our Island Home**

The Energy Office staff continues to work with key OIH staff to coordinate and install six significant energy saving and critical mechanical upgrade projects at Our Island Home, as detailed in the Northern Energy Service proposal dated 7-18-16. The Energy Office staff was central in contracting these services under Section 14 of MGL ch. 25A, which provides a limited exemption to public construction bid laws for municipalities contracting with their electric utility's selected vendor (Northern Energy Services) for energy conservation projects that cost \$100,000 or less per measure. This special arrangement resulted in a total project nearly \$300,000 under budget; half the cost as quoted by the design engineer.

Since the contract with Northern Energy Services was signed on 8/22/16, all parts have been ordered, with several being backordered due to the time of year. According to Northern Energy, on 10/25/16: "Weil McClane is releasing the boilers for shipment today and the controls hardware is already enroute. We plan to start installing valves and controls as soon as the material arrives, as early as next Monday or Tuesday (Oct. 31-Nov.1)."

- **37 Washington (Finance Building)**

The Energy Office staff coordinated the repair of the exterior lighting photo-controls at the Finance Department Building on 37 Washington which had been causing the outside lights to be powered on 24/7. Since the repair occurred on August 30th, electric usage for the month of September dropped 18.5% compared to September of the previous year.

Ms. Sinatra also worked with Aeronvironment to troubleshoot and repair a faulty Electric Vehicle Charging Station at the facility/public parking lot.

- **Wannacomet Water**

The Energy Office staff assisted Wannacomet Water Company management and architects to consider more energy efficient designs in their plans for the new Administrative Building, and to qualify for applicable utility incentives.

Renewable Energy & Energy Storage Initiatives

1. Solar Hot Water Feasibility Study for Our Island Home (Appendix A)

Last spring, the Energy Office staff secured \$5,000 in grant funding for a solar hot water feasibility study for Our Island Home, offered through the Massachusetts Clean Energy Center (MassCEC). The study was finalized on October 26, 2016.

In summary, the study focused on the application of a solar hot water system for the Our Island Home skilled nursing facility, owned and managed by the Town of Nantucket. This facility was selected because of high hot water usage and fuel costs. The Town currently contracts for fuel oil with Harbor Fuel at 33% below market pricing, but even with low fuel prices, solar hot water (SHW) systems typically yield favorable economics for buildings heating with oil due to relative inefficiency of oil-fired boilers, and the study confirms this to be true for Our Island Home.

The facility, which houses low-income elderly residents in 45 beds, is currently served by (2) oil-fired hot water heaters planned for replacement in November. This study analyzes a SHW system including vacuum tube collectors, and solar hot water storage tanks that would provide pre-heated water to the conventional oil-fired system.

Utilizing industry-standard TSOL modeling software, the study estimates total savings at 1,213 gallons per year. Under the Town's current fuel contract with Harbor Fuel for a discounted oil price of \$2.10/gallon, this results in annual savings of \$2,547. At a market rate of \$3.00/gallon, annual savings would be \$3,639.

Given these energy savings, and cash rebates offered through the MassCEC Commonwealth Solar Program, financial analysis shows the system to be cost effective as a direct investment by the municipal non-profit owner. As shown in Exhibit A of the report (Appendix A), the investment offers a high rate of return. For this system, the estimated net investment is **\$13,335**, and Year 1 cash-on-cash return is 19.1%. Given fuel price increases at 2.5% per year, investment payback is estimated to occur in **Year 5**. Using a 5-year historical cost average for what the facility has paid for oil (\$3.00) with no price escalation, the simple payback period would be closer to **3.5 years**. Total oil savings is estimated at over 12,000

gallons over the first 10 years of the system's expected 25 year life yielding avoided fossil fuel emissions of over 270,000 pounds of CO₂.

Next steps: If representatives from the Town and the facility indicate an interest in going forward with this project, the Energy Office staff recommends approaching Northern Energy Services (National Grid's energy services vendor for Nantucket) to determine whether a SHW system can be folded into their existing scope of work for the OIH facility. This would help the Town to contract directly (under M.G.L. Chapter 25A) with the same vendor already engineering and installing related mechanical system upgrades.

2. National Grid's Solar Phase III Program

On August 15, 2016, National Grid released an RFP to the solar development community for the third phase of its program to construct, own, and operate facilities that would generate up to 14 megawatts of electricity from solar energy ("Solar Phase III Program") in specific National Grid territories, with Nantucket being listed as a priority site for developers to consider. The Energy Office was contacted by one company, Borrego Solar-- a reputable MA-based solar developer with familiarity of Nantucket's sites and local permitting challenges--who sought permission to include certain Nantucket municipal parcels in their bid package.

The Energy Office approached the Airport, DPW, and Wannacomet Water Co. managers about this prospect, with all parties agreeing that the Solar Phase III program presented itself as a unique opportunity to guarantee lease revenue with an ideal permanent tenant (NGRID), without the usual risks associated with a Power Purchase Agreement. Another major benefit for the Town to pursue solar development under the National Grid Phase III program would be a final chance to secure market or slightly above market lease rates as the Solar Phase III projects will be insulated from the changing, and diminishing Massachusetts solar incentives (see next section) under utility ownership.

As a result, the Energy Office drafted a letter, approved by Town Administration and various department managers, permitting Borrego to include certain Nantucket municipal parcels in their bid package. However, as stated clearly in this letter, the Town reserves the right to

rescind its support at its sole discretion (Appendix B). Award notifications to selected bidders will be released on November 7, 2016. Should Borrego secure an award from National Grid, the Town may move into lease discussions only after MGL Chapter 30B Uniform Procurement Act requirements have been met to the satisfaction of the Town's legal counsel.

3. Next generation Massachusetts Solar Incentive Program

On September 23, 2016, the Massachusetts Department of Energy Resources (MA DOER) revealed their initial plans for the next solar incentive program (a new tariff model vs. SREC model) in a Next Generation Solar Incentive Straw Proposal presentation. In reviewing the presentation, the Energy Office staff had several, major concerns that would certainly have detrimental impacts upon future solar development on Nantucket, specifically related to: 1) new, restrictive "Land Use & Siting Criteria 2) an insignificant "apportionment" of capacity block for the Nantucket Electric distribution zone, and 3) No add-on tariffs to incentivize solar development in low saturation areas or "utility priority distribution zones" (i.e. Nantucket/3rd cable).

On October 18, 2016, Ms. Sinatra contacted Michael Judge, Director of the DOER's Renewable Energy Development division, and after voicing her concerns, was invited to participate in three separate solar stakeholder workgroups on each of these topics. Meetings began during the week of October 17 and will continue until the first week of November when an updated draft program model will be released based upon stakeholder feedback. To date, Ms. Sinatra has been successful in arguing the need for specific Nantucket exceptions and exemptions during these meetings, with other stakeholders acknowledging how certain new program requirements are not suitable for Nantucket, and will likely have the unintended effect of disqualifying all meaningful solar projects on the island.

In the meantime, Ms. Sinatra is drafting a letter reflecting her concerns and recommendations in response to the DOER's request for public comments on the original plan due October 28, 2016 (Appendix C).

4. “Peak Demand Management” Energy Storage Pilot

In response to the Massachusetts Department of Energy Resources’ (DOER) \$10Million "Peak Demand Management Grant Program" RFP, the Energy Office provided a letter of support for Genbright LLC’s proposal for a residential energy storage pilot on Nantucket, which essentially emulates the Ice Energy Storage initiative that had been included in National Grid’s (recently withdrawn) DPU petition for a “Non Wires Alternative Project.”

As an interested, local stakeholder, the Energy Office staff provided key input on the proposal, which seeks \$3,000,000 in funding for the Nantucket pilot. Awards are expected to be announced by the end of October, at which point, if Genbright is successful, discussions will be initiated with the Town to determine the appropriate level of support as a host pilot location, i.e. public outreach assistance by the Energy Office staff, waiving of certain permitting fees related to installing the Ice Energy Units, etc.

An abridged (non-confidential) version of the proposal and the letter of support are included in Appendix D.

Municipal Energy Policies

1. Housing Production Plan

The Energy Office staff was pleased to provide key input that was incorporated into the final Housing Production Plan, approved by the Board of Selectmen on August 3, 2016, which placed greater emphasis on the need to integrate energy use as an essential element of sustainable, affordable housing development. The Housing Plan now includes goals and strategies that relate to utilities, energy efficiency and renewable energy, such as:

- Encourage greater energy-conservation and use of renewable energy in residential development or redevelopment, including new affordable housing
- Developers should be encouraged to integrate high energy efficiency requirements that result in reduced operating costs (i.e. Mass Save New Construction Program), and renewable energy where possible
- Connect Homeowners, Renters, and Developers to Energy Efficiency/Renewable Energy Programs and Incentives, such as the Mass Save Residential and New Construction Programs.

To the last point, the Energy Office staff was successful in getting National Grid's approval to provide Richmond Great Point Development with enhanced and specialized support to participate in the Mass Save Residential New Construction program. This support would include the direct assistance of a dedicated, technical adviser who would deliver a heightened level of program management support and ensure that their projects qualify for the maximum incentives and rebates for integrating more energy efficient systems and features.

2. Employee Recycling

On June 26, 2016, the Energy Office staff compiled and distributed a survey to all Town employees seeking input on how to improve municipal employee recycling in the workplace. Nearly 70 employees from all municipal departments completed the survey, which gleaned valuable insights and information. The Energy Office staff analyzed the survey results and comments to determine key next steps and solutions that have either been addressed or are currently in progress.

Community-Wide Energy Initiatives

1. Community Choice Aggregation (CCA)/Municipal Aggregation

On September 9, 2016, Ms. Sinatra traveled to Boston to testify in front of the Department of Public Utility (DPU) hearing board in support of the Nantucket Aggregation Program (See Appendix E for transcript of testimony). Since then, she has continued to support the Aggregation process, working closely with the Peregrine Energy Group and the Town's internal Aggregation Evaluation Committee, which includes: Peter McEachern (Fin. Comm.), Peter Kaizer (Cap. Comm.), and Julia Lindner (Town Financial Analyst).

The Energy Office staff has invited the consultants from Peregrine Energy Group to present the Board of Selectmen on November 2, 2016 with pertinent updates to the Nantucket Power Choice Aggregation Program. The consultants will review process updates, recent changes in rate structures, indicative pricing interpretations, and next steps for launching the program. Updates will continue to be posted to the Town's Aggregation website: <http://nantucket-ma.gov/751/Municipal-Electricity-Aggregation>.

2. Mass Save Energy Efficiency Program: Residential & Business Energy Assessments

In 2016 to date, the Energy Office has worked with National Grid and Mass Save to publicize, schedule and arrange no-cost home energy assessments for **574** Nantucket households (27.5% above the original 2016 goal of 450 assessments), which has resulted in the following no-cost measures:

- **25,151** LEDs installed
- **150** wifi programmable thermostats (+\$200 value)
- **211** dehumidifiers (+\$200 value)
- **49** Hybrid electric Heat-pump Water Heaters (\$3,000 value)
- **979** Powerstrips installed
- **755** Low-flow showerheads installed
- **121** Insulation contracts and **124** free Air Sealing contracts issued

The next scheduled residential energy assessment weeks will take place:

- **November 7-11, 2016**
- March 13-17, 2016
- May 8-12, 2017

The Energy Office staff has also helped to coordinate business energy assessments for the Landmark House (low-income multi-family program), Academy Hill Apartments (low-income multi-family program), Sankaty Golf Club, NISDA, and Nantucket Ice Rink.

The Energy Office staff also participated in several community outreach events, including hosting an informational table at the Elder Expo and Nantucket Island Fair in September.

WPI Energy Research Project

From October 24 until mid-December, the Energy Office will sponsor and serve as the main project advisor to four undergraduate engineering students from Worcester Polytechnic Institute. This project will be the sixth research project that the Energy Office has sponsored in recent years, focusing on local energy issues. This year's project is detailed below:

“Electric Vehicles: Analyzing the Benefits and Complications of Increased Adoption”

*Sponsored by Lauren Sinatra, Energy Coordinator with assistance from
Mike Burns, Transportation Planner*

Project Background:

As an island, Nantucket must import all its fuel from the mainland and gasoline prices are often among the highest in the country. The use of electric cars may appear to be an attractive option to reduce gasoline consumption and costs, although savings will depend on the relative cost of electricity. Aside from reducing fuel use, electric cars may also have other benefits, such as reducing noise and other pollution on the island. Encouraging electric cars may have adverse impacts, however, such as increasing traffic congestion and increasing peak load electricity consumption. Voters at Town meeting have repeatedly approved limiting the number of vehicles on the Island, in part to reduce congestion and relieve parking, but also to preserve the Island's quiet, rural, scenic, and historic setting.

Project Description & Goals:

This project builds upon the research and recommendations of the 2010 IQP, titled “**Electric Vehicles: Exploring the Options for Electric Vehicles on Nantucket.**” The goal of the proposed project is to assist the Town of Nantucket to determine if it is desirable and feasible to expand the use of electric vehicles and related infrastructure on the island. The Town is also interested in knowing how an increased EV fleet may impact Nantucket's rising summer peak demand and if so, how this outcome might be offset. Among other things, the team will need to:

- Analyze the increase in EV usage since the 2010 IQP (through Department of Motor Vehicle (DMV) registration data, Steamship Authority booking data, and other available data).
- Determine the adequacy of the Town's current (free) electric vehicle charging stations and recommend areas for improvement, including relocating of chargers, adding/removing chargers, requiring payment for charging privileges, etc.
- Identify the range of policies and programs that have been proposed or implemented in order to encourage greater use of electric vehicles through a review of the background literature and interviews with EV owners and other key stakeholders.
- Determine how increased EV use may impact the island's rising “Peak Load,” and how local, seasonal, and visiting EV drivers may be incentivized to charge more responsibly during off-peak hours.

- Characterize the knowledge, attitudes, and perspectives of EV users and other key stakeholders on the island with regard to electric vehicles through surveys of the public and interviews with other stakeholders.
- Conduct scenario analyses to gauge the costs and benefits of encouraging greater use of electric vehicles within different segments of the vehicle fleet, including municipal and privately-owned vehicles, as well as taxis, shuttles, and courtesy vehicles.

National Grid Updates

The following are projects and initiatives led by National Grid for which the Energy Office closely monitors and provides regular feedback and support, where appropriate, in the best interests of the Nantucket community.

1. Bunker Road Generation Project

- **Phase 1:** National Grid plans to replace at least one of the two aging 3MW diesel generation units with a new 10MW diesel generator. These generators have not been updated since 1987 and are in a significant state of decay.
 - Updates:
 - September 30, 2016 – National Grid submitted a request for proposals (RFP) for the 10MW Generator
 - November 6, 2016 – National Grid to receive responses and review
 - March 2017 – Engineering Design Complete
 - July 2017 – Commencement of Construction
- **Phase 2:** National Grid is anticipating releasing a RFP for the **Battery Electric Storage System (BESS)** in early November. If this option proves as a viable solution, the company will install the BESS in place of a second 10MW generator at Bunker Road, with an estimated completion date of early 2018.

2. Candle Street Station Flood Mitigation Project

National Grid completed Phase I of the flood mitigation improvement measures at the Candle St Substation on October 25, 2016. The work started on October 17, 2016 and consisted of improvements (raising) the sandbag protection of existing switchgear at the station.

Improvements were made to ensure that the Sandbags were protected from the FEMA base flood elevation projections, so that mobilization and installation of sandbags would not be required prior to a storm event. Currently National Grid is actively designing Phase 2 of the project which will permanently raise the gear and other site components within the station, above the project FEMA base flood elevations. This work is expected to start construction in fall 2017.



**Commonwealth Solar Hot Water Commercial Program
Solar Hot Water Feasibility Study #506FS**

28 October 2016

FINAL DRAFT



Our Island Home

1 East Creek Rd., Nantucket, MA

Owner contact: Lauren Sinatra, Energy Coordinator
Town of Nantucket
Nantucket, MA 02554
lsinatra@nantucket-ma.gov; (508) 325-5379

Consultant: John W. Moore Architect, LLC
POB 382112, Cambridge, MA 02238
moorej@att.net; (508) 269-3883

TABLE OF CONTENTS:

<u>Executive Summary</u>	3
<u>A. Current Building Conditions</u>	4
1. Existing Hot Water Heating System	
2. Load Profile	
3. Roofing and Structural Information	
<u>B. Solar Hot Water Design Specifications</u>	12
1. Solar Thermal Collectors	
2. Tank Size, Type, and location	
3. Pipe Chase	
4. Structural Design	
5. Control System	
6. Performance Monitoring	
7. Solar Circuit	
8. Thermal insulation	
9. Heat Rejection	
10. Code requirements, warranties, etc.	
<u>C. Project Economics</u>	18
1. Energy production, etc.	
2. Financial Analysis	
3. Incentives	
EXHIBIT A.	Financial Analysis
EXHIBIT B.	Preliminary System Cost Estimate
EXHIBIT C.	TSOL Energy Analysis
EXHIBIT D.	Structural Analysis

Executive Summary

This study focused on the application of a solar hot water (SHW) system for the Our Island Home skilled nursing facility, owned and managed by the Town of Nantucket. This facility was selected because of high hot water usage and fuel costs. The Town currently contracts for fuel oil at 33% below market price, but even with low fuel prices, a SHW system yields favorable economics due to relative inefficiency of oil-fired boilers. For this facility, we estimate **simple payback for a SHW system at 3.5 - 5 years.**

The facility serves low-income elderly residents in one building with 45 beds. The building is currently served by (2) oil-fired hot water heaters, to be replaced with a new boiler and indirect HW tanks before the solar installation. This study analyzes a SHW system including vacuum tube collectors and solar storage tanks that would provide pre-heated water to the new conventional oil-fired system. Fuel oil usage will thus be dramatically reduced.

Utilizing industry-standard energy modeling software, we have estimated annual energy savings at 1,213 gallons per year. Under the Town's current fuel contract and discounted oil price of \$2.10/gallon, this results in annual savings of \$2,547. If we calculate at the facility's 5 year historical average fuel price of \$3 per gallon, annual savings would be \$3,639.

Financial analysis shows the system to be cost effective as a direct investment by the municipal non-profit owner. Current rebates offered by the MA CEC for low-income facilities are equal to more than 80% of the system cost (see Section C.3) yielding an **estimated net investment of \$13,335.** If the current fuel price increases at 2.5% per year, investment payback would occur in Year 5. If we project a fuel price equal to the 5 year historic average (\$3/gallon- which is the current market rate on island), with no rate escalation, the simple payback period would be 3.5 years (see Exhibit A.) **Over the first 10 years of the system's expected 25 year life, avoided fuel oil would be approximately 12,130 gallons, avoiding 270,000 lbs. of CO2 emissions, and saving the facility more than \$36,000.**

Next steps: Staff at the OIH facility has confirmed adequate funding available based upon costs and incentives presented in this report. If representatives from the Town and the facility indicate an interest in going forward with this project, they may be advised to approach Northern Energy Services (National Grid's energy services vendor for Nantucket) to determine whether a SHW system can be folded into their existing scope of work for the OIH facility. This would allow the Town to contract directly (under M.G.L. Chapter 25A) with a vendor already engineering and installing mechanical system upgrades.

A. Current Building Conditions

The original building was constructed in 1980 and consists of 4 attached single story “wings”, containing 45 beds, bathrooms, a commercial laundry, commercial kitchen, mechanical rooms, nurse call center and related administrative areas. Average occupancy is (40-45) low-income elderly residents served by (6-8) 24-hour staff. The building is wood framed, with slab on grade reinforced concrete floors with fully accessible attic. An addition containing a large dining room with metal framing and metal roof trusses was built in 2002. Total gross area for the facility is approximately 20,736 sq.ft. The building is heated with (3) oil-fired boilers serving an insulated hot water distribution piping and pumping system. The facility is partially air conditioned by split systems. The mechanical room is located on the ground floor of the South wing.



South Wing @ Mechanical Room



East Wing



Dining Room Addition



Dining Room Interior

1. Existing Hot Water Heating System

Currently, domestic hot water is provided by (2) oil-fired Bock 73E 67-gallon capacity storage type water heaters, each rated for 242,000 BTUH input and 1.75 gph of #2 fuel oil input provided by an above ground oil storage tank located immediately outside of the mechanical room. The boiler and domestic hot water heaters vent their products of combustion into a masonry chimney with an inline fan inducer. Utilizing a Leonard mixing valve, domestic hot water is provided at only 110 °F due to safety concerns. Recirculated hot water is mixed with cold and boiler heated water.



DHW heaters



Mixing Valve



Service temperature at 110 °F

For the commercial kitchen, separate propane-fired DHW boosters are utilized for instantaneous dish-washing purposes. These boosters are necessary given the low water temperature delivered by the HW heaters. The existing oil-fired HW heaters were installed in January of 2007 and have reached the end of their useful life. The owners plan to install (3) new boilers with (2) indirect storage tanks capable of providing both space heating and domestic hot water. Based on the specification, efficiency of the new DHW system may be slightly higher than the existing system on an annual basis (+ 5% as projected in report by Northern Energy Services dated 6/21/16.). Specifications for the new boilers and tanks are as follows:

Boilers:

Weil Mclain WGO-8 #8 Section Cast Iron Oil Fired Boiler
 Non-Energy Star rating; 231 BTUH Net Rating
 Weil Mclain 386700416 Burner Oil Becket Wgo-8

Indirect HW Tanks:

Weil Mclain Aqua-Plus 85
 316L Stainless Steel tank w/ 1"+ diam. 304 SS heat exchanger

2. Load Profile

For this low-income elderly population, hot water use is higher than industry average and consistent year-round. This is due to the demands of a nursing facility including bathing/showering, commercial kitchen and commercial laundry. All residents receive daily sponge baths or showers, three meals per day, and change of linens. The laundry creates the largest demand for HW with 3 commercial machines completing 10-12 hot water loads per day. As shown in Fig. 2 & 3 below (from a report by TNZ Energy Consulting dated 8/30/14) estimated energy necessary for the laundry and DHW is 20% of the facility's total energy usage:

Figure 2
Our Island Home Daily Average Energy Use Relative to Average Ambient Temperature per Billing Period

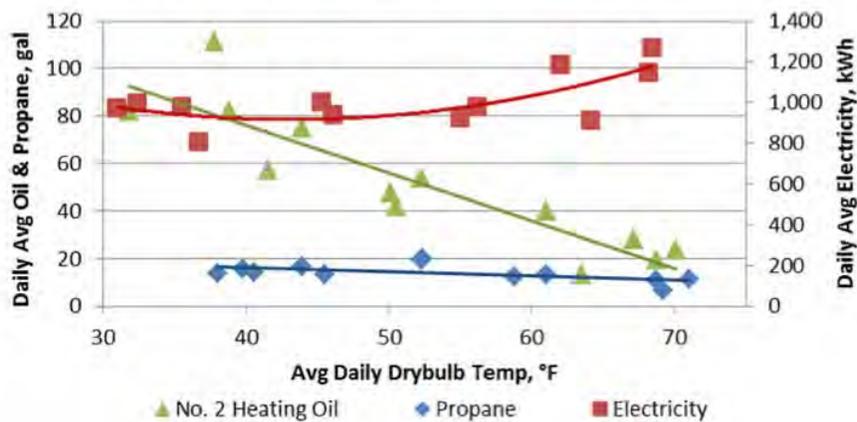
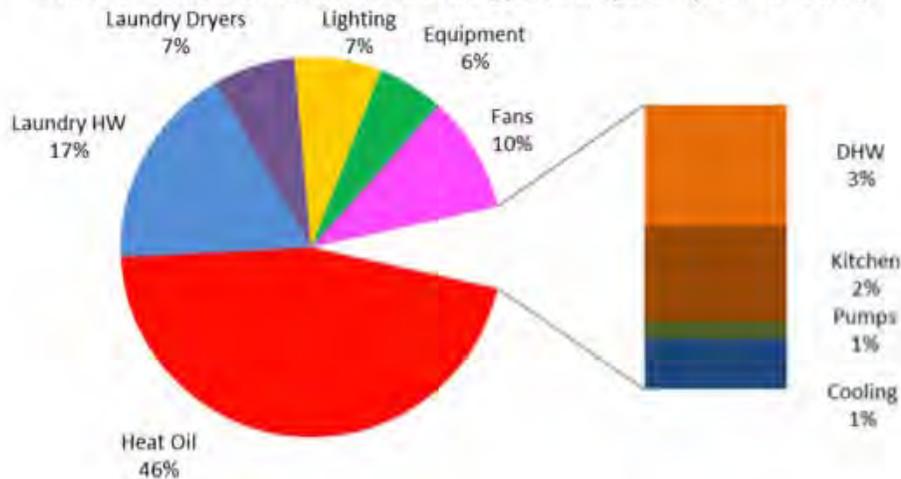
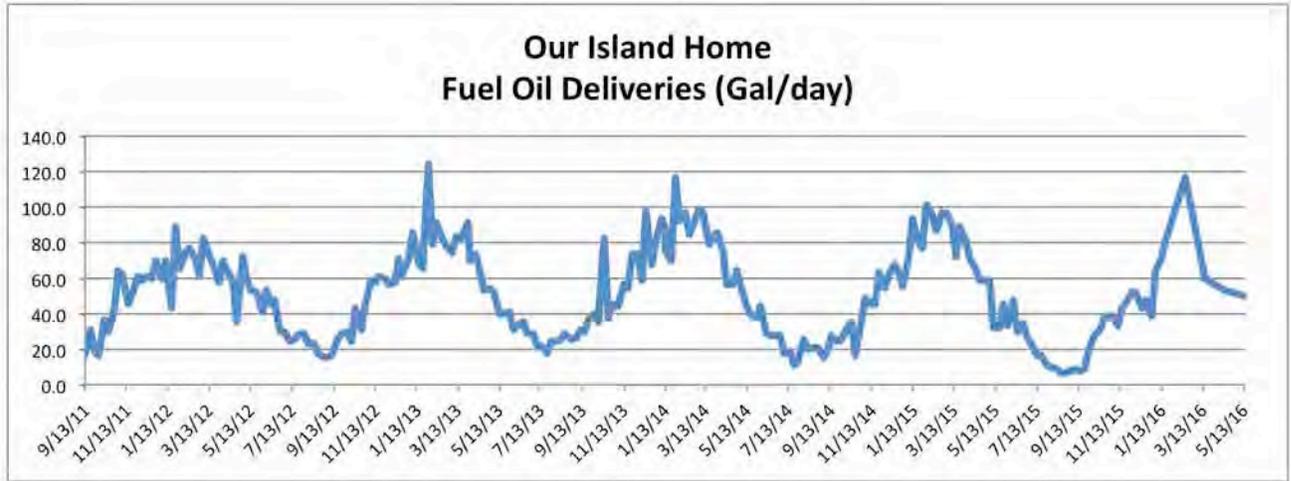


Figure 3
Our Island Home Distribution of Site Energy Consumption by End Use Group

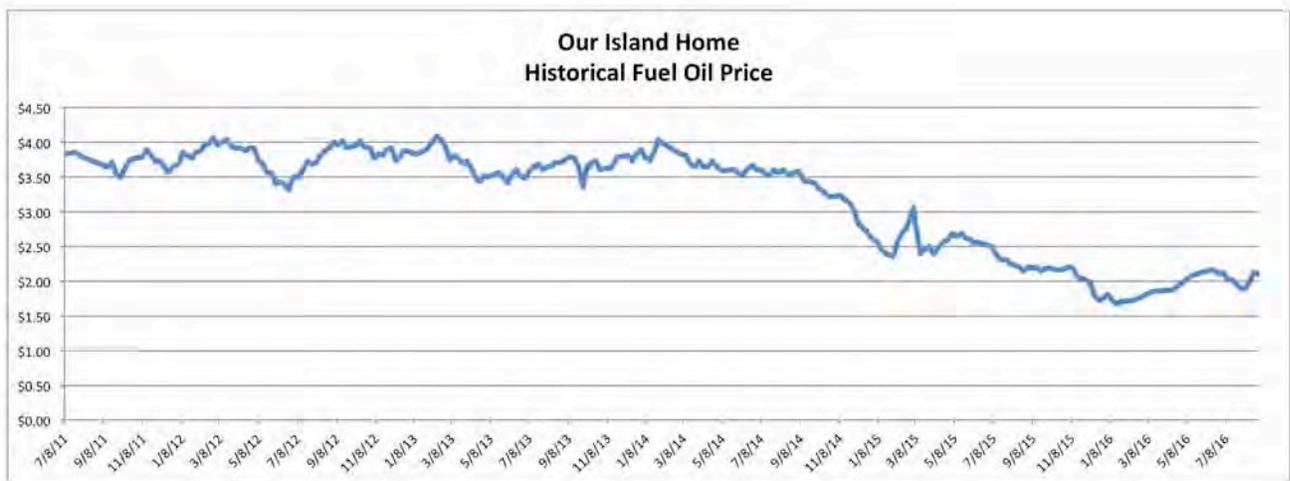


Oil Use:

Historical fuel bills provided by the owners for the past 4 years indicate average total fuel oil usage at approximately 19,000 gal/YR (last year there was less oil use (16,000 gal/YR) due to a mild winter. During summer months when there is no space heating demand, oil use averages 11 gal/day. This yields an estimated usage of 4,000 gal/YR for domestic hot water purposes. DHW thus requires about 25% of the total annual fuel oil bill.



The Town currently contracts for a below market fuel price of \$2.10/gallon. The historic 5 year average price was \$3/gallon. See below:

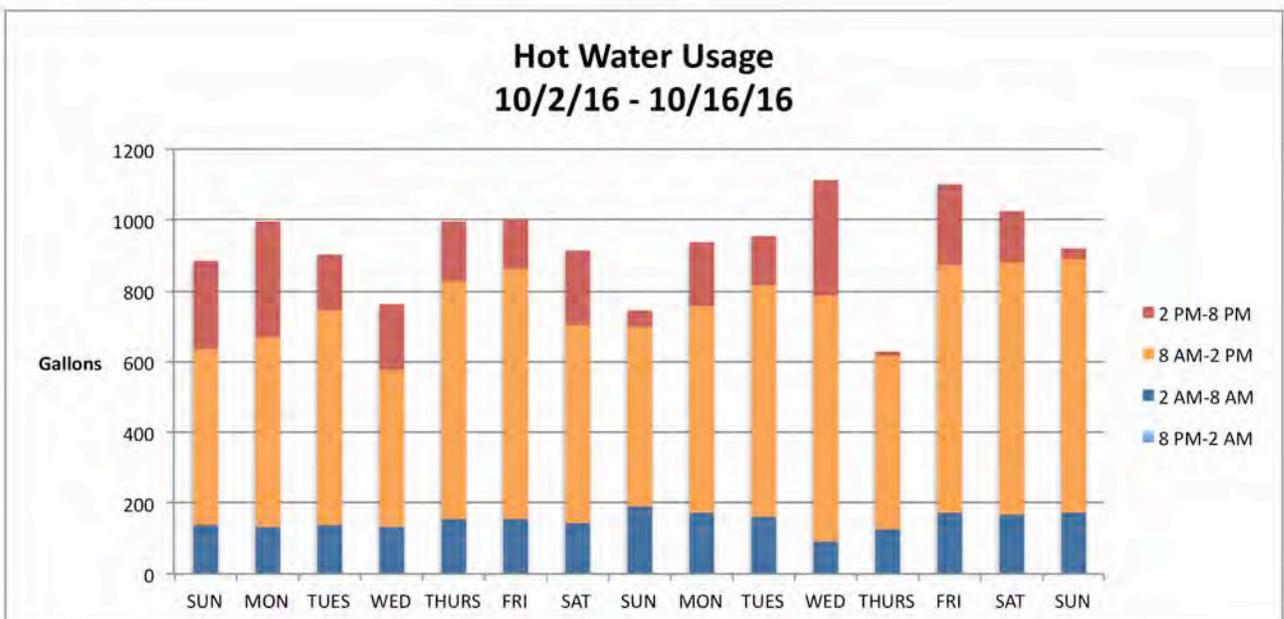


Hot Water Use:

Industry standard for Nursing Homes as published in the ASHRAE Applications Handbook (Chapter 45, Table 7) indicate average daily usage of 140°F hot water at 18.4 gal/day/bed. For this facility fuel oil usages indicate a higher demand than industry standard. We would thus estimate hot water demand at 20 gal/day/bed or a total of 900 gal/day of 110°F hot water. Flowmeter readings taken during the 2 weeks from October 2-16 confirm these assumption with average consumption at 926 GPD. See below.



Flowmeter transducer installed October 2-16 2016
(on cold water inlet to existing Hot Water Heaters)



3. Roofing and Structural Information

Several south-facing roofs are available for solar collector installation, but due to aesthetic concerns, the rear east wings are most appropriate.



The Dining Room wing is closest to the mechanical room, but the metal truss roof structure could be problematic. Upon review by our structural engineer, the lightweight metal structure is not designed such that it could easily accept additional loads. In addition, all structural connections would have to be thoroughly inspected as they are interdependent and one failure could easily lead to multiple failures.

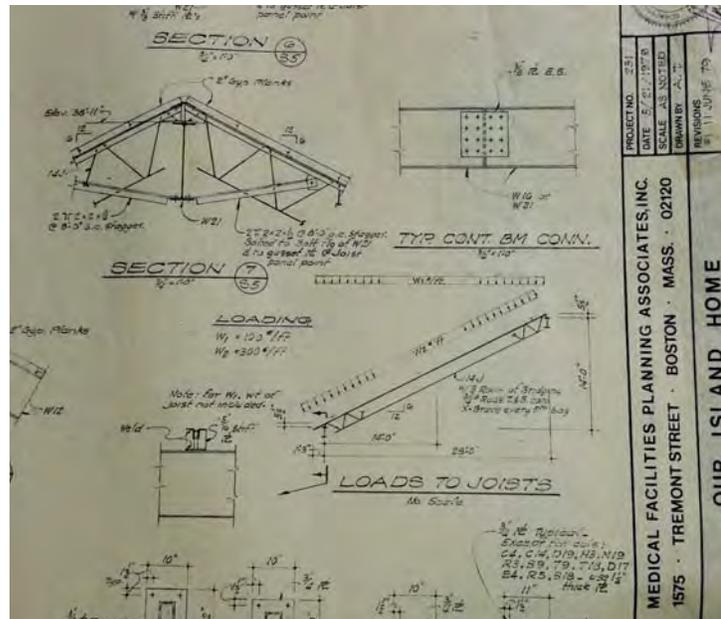
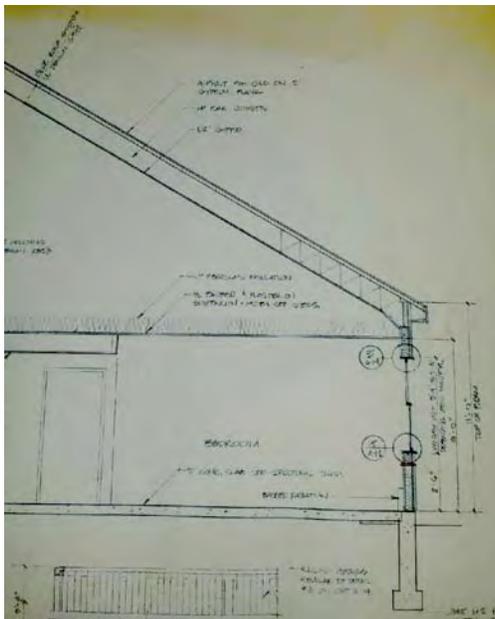


Dining Room Addition roof structure

The original building's East Wing has sloped roofs with asphalt shingles, no longer under warranty. Structure is 2" gypsum plank underlayment over 14J4 steel open web joists at 48" o.c.. This structure is adequate to support additional load from solar collector arrays. Please see drawings below and engineering study attached Exhibit D.



East Wing



Original building structural details

B. Solar Hot Water Design Specifications

1. Solar Thermal Collectors.

Our design calls for (12) SunMaxx VHP30 vacuum tube type collectors. These collectors provide a combination of low initial cost with high SRCC ratings- thus generating a relatively high rebate from the MassCEC (important for a municipal non-profit owner unable to take advantage of tax benefits.) Vacuum tube collectors are also an appropriate choice for cold, cloudy and foggy climates. 2 rows of (6) 30-tube collectors can be mounted flush (27° inclination) on the south-facing roof of the East Wing.




SunMaxx Solar
Hot Water Solutions

SunMaxx ThermoPower-VHP Collector

OPTIMUM PERFORMANCE
Industry-leading absorptive coating features 92% efficiency

STRENGTH BY DESIGN
Double wall vacuum tubes eliminate risk of vacuum loss

UNBEATABLE VALUE
More BTUs per \$ than any other vacuum tube collector on the market.

SRCC CERTIFIED
GG-100 certification qualifies for incentives and rebates



An Investment with Real Returns

SunMaxx Vacuum Heat Pipe (VHP) vacuum tube collectors feature cutting-edge design and are constructed of the highest quality materials to provide optimal performance and durability while remaining affordable to maximize your return on investment.

- SRCC OG-100 Certified
- Solar Keymark Certified
- 10-Year Warranty (when installed by a certified installer)
- Impact-resistant borosilicate glass
- Includes all mounting hardware for flush or tilt mount
- Industry's highest BTU per \$

Solar Thermal Collector Quantity	ThermoPower-VHP10	ThermoPower-VHP20	ThermoPower-VHP30	ThermoPower-VHP30V1
20 ft Container	150-160	75-82	50-56	60
40 ft Container	170-180	170-180	119-124	110
40 ft HC Container	200-210	200-210	135-142	140



1. Manifold
2. Double Wall Vacuum Tube
3. 1" Male NPT Brass Connection
4. Temperature Sensor Well
5. Free Standing Extruded Aluminum Adjustable Frame (Included)

SPECIFICATIONS	ThermoPower-VHP10	ThermoPower-VHP20	ThermoPower-VHP30	ThermoPower-VHP30V1
Dimensions (in)	37.5 x 79.0	70.2 x 79.0	102.9 x 79.0	102.9 x 79.0
Net Aperture Area (ft ²)	10.01	20.03	30.04	34.72
Dry Weight (lbs.)	88	170	252	252
Fluid Capacity (gal)	0.58	0.90	0.81	0.8
Recommended Flow Rate Per Collector (gpm)	0.28	0.56	0.84	0.84
SRCC Clear C Rating (KBTU per panel per \$99)	14	28	42	42
Recommended Max # of Tubes in Series	120			
Tilt Angle (deg)	15-75			
Stagnation Temperature (deg F)	428			
Operating Pressure (psi)	20-70 (Recommended) 150 (Maximum)			




SunMaxx Solar 86 Broome Corp. Pkwy, Conklin, NY 13748 | 1.877.784.6299 | 1.800.786.0329 fax | www.sunmaxxsolar.com
© 2010 SunMaxx Solar, Inc. Specifications subject to change without notice.

2. Tank Size, Type, and Location.

According to the TSOL energy analysis (see Exhibit C) for 12 collectors, the optimum solar storage tank size is approximately 475 gallons. We propose utilizing (4) 119 gallon HTP SuperStor stainless steel tanks plumbed together. The system proposed would be an unpressurized drain back type, so multiple tanks is acceptable. There is adequate space for the storage tanks in the storage room adjacent to the Mechanical Room located on the ground level of the South wing.



Storage room available for tanks

SUPERstor ULTRA

Stainless Steel Long Lasting! Best Warranty!

SSU tanks with preheat, water heater backup				
Model	GAL.	Height/ Diameter	Freight Weight	Recomm. Flow Rate
SSU-20	20	27" / 19.25"	60 lbs	8
SSU-30	30	27" / 19.25"	60 lbs	8
SSU-45	45	39.5" / 19.25"	72 lbs	8
SSU-60	60	52.5" / 23.25"	98 lbs	10
SSU-80	80	72" / 23.25"	139 lbs	12
SSU-119	119	74" / 23"	206 lbs	14

SB tanks with boiler backup				
Model	GAL.	Height/ Diameter	Freight Weight	1st Draw 65° Rise
SSU-60SB	60	52.5" / 23.25"	120 lbs	40 Gal.
SSU-80SB	80	72" / 23.25"	151 lbs	60 Gal.
SSU-119SB	119	74" / 23"	220 lbs	90 Gal.

SE tanks with electric backup				
Model	GAL.	Height/ Diameter	Freight Weight	1st Draw 65° Rise
SSU-60SE	60	52.5" / 23.25"	115 lbs	40 Gal.
SSU-80SE	80	72" / 23.25"	146 lbs	60 Gal.
SSU-119SE	119	74" / 23"	215 lbs	90 Gal.

For the ultimate in performance and longevity, choose a SuperStor Stainless Steel Solar Tank. Each SuperStor Solar Tank features the highest performance available. Its internal cupronickel finned heat exchanger is capable of quickly transferring energy from any solar collection system. Its tank is constructed of high quality 316L stainless steel for long service life and eliminates foul water caused by anode rods.

A limited **Lifetime Protection Plan** gives users peace of mind that their investment is backed by the industry's strongest warranty. Thick CFC-free foam insulation provides superior heat retention and durability. Enclosed in an attractive silver-colored jacket, the SuperStor Solar Tank will look good while providing many years of worry-free performance.

- Number one selling indirect water heater in the country
- Ultra high performance, can generate over 50% more hot water than many water heaters of similar size (offered in 7 sizes: 20 to 119 gallons)
- Minimal heat loss, due to thick, water blown, foam insulation
- Virtually maintenance free operation
- Extremely durable cupronickel heat exchanger boasts excellent heat transfer properties and resists corrosion
- Robust 316L stainless steel tank eliminates the need for anode rods
- Aesthetically pleasing; the attractive and durable silver plastic jacket ensures a rustproof finish, even in humid environments
- Low energy costs
- Limited lifetime residential warranty: The industry's strongest protection plan

HTP Pool Heater SSU-20PH

Robust 316L stainless steel tank eliminates the need for anode rods

Market Leadership For Over

25

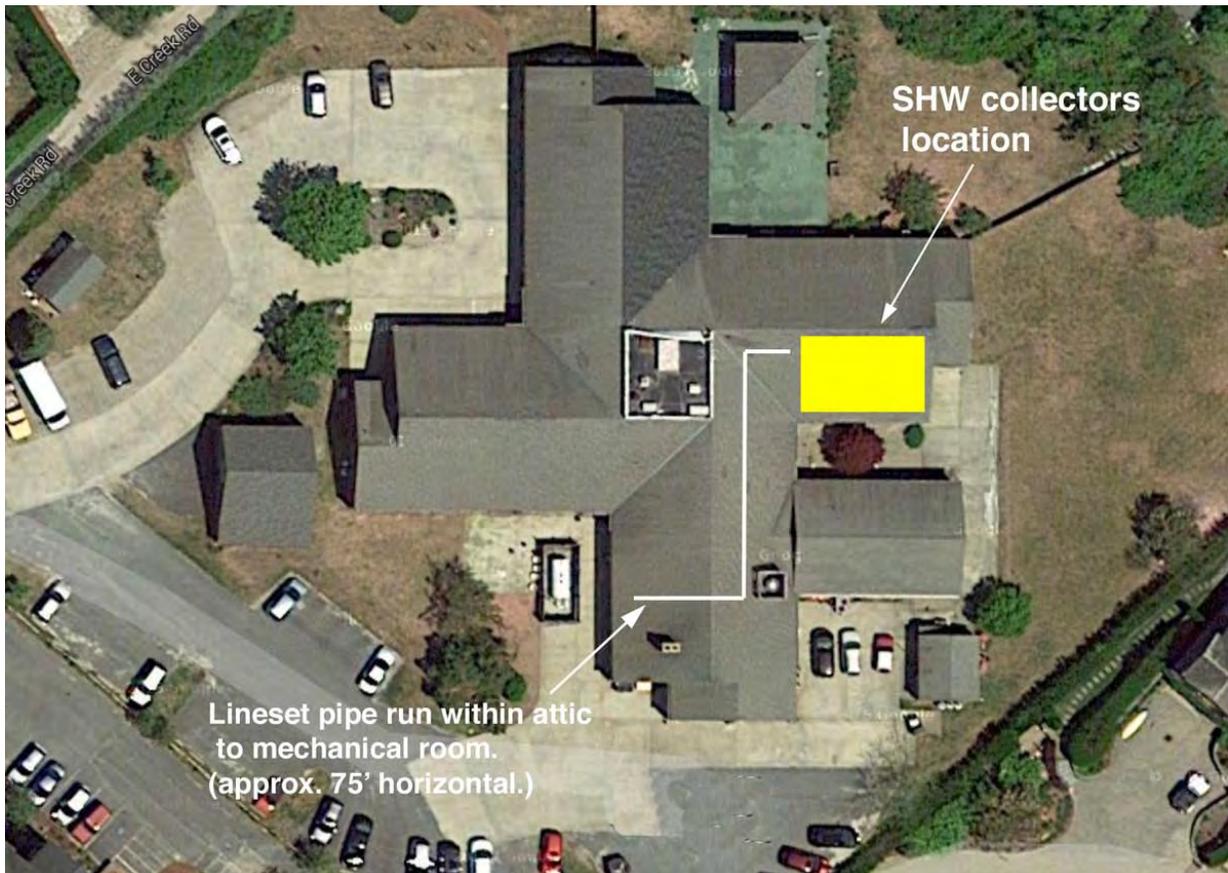
Years

Tank Key: Number = Gallon Capacity; SB = Solar Backup; CW = Cupronickel Heat Exchanger; SE = Solar Electric; HE = Heat Exchanger; EB = Drain Back; DB = Drain Back with Exchanger; S = Solar; (Water Jacket) (not possible in some installations)

Typical Solar Storage Tank

3. Pipe runs.

The one story building has a fully accessible attic for lineset pipe runs. Stainless steel flexible pipe or Copper type "M" pipe is required. The vertical rise from mechanical room ceiling to the roof is approximately 15'. Piping would then run horizontally in the attic to the collectors yielding a total piping distance of approximately 75' one way from the storage tank. See below:



4. Structural Design.

EAH Structural Consulting has determined the original building roofs adequate for support of the proposed solar collectors given proper typical flush-mount connection detailing. Connection details to the existing bar joist/gypsum plank roof to be industry standard per collector racking manufacturer. Please see attached Exhibit D. Structural Analysis.

5. Control System.

Standard "Resol" controller. 20A, 120VAC 50-60 Hz power branch circuit required. Subpanel to be added from mechanical room service. The control unit, pump and monitoring unit shall be located near the storage tanks. The system can be restarted manually or automatically should the unit shut down due to power outage. All electrical equipment must adhere to 70 National Electrical Code.

Solar controller DeltaSol® BS



The RESOL controller for standard solar thermal systems. The DeltaSol® BS controller provides a clear operating concept and is equipped with the illuminated combined display with system-monitoring. Flashing symbols for sensors, pumps and valves enable an immediate allocation of temperatures, temperature differences and active actuators. Thus, adjusting and monitoring the solar system is quick and easy. The DeltaSol® BS controller is available in 2 versions, depending on the demands. Details concerning the number of the relays as well as additional functions are shown in the technical data.



6. Performance Monitoring.

System to include monitoring measuring the temperature of the cold water 'in' and the hot water 'out'. This and the mass (flow) gives the solar contribution to DHW. System. Hardware to include Amatis "AM-Joule" monitoring system. This unit is ethernet enabled, MassCEC rebate compliant. Internet enabled data logging of collector loop 'production' and domestic HW 'consumption' (2 flowmeters and associated temperature sensors) required. (6) Monitored points: on Solar side: 1. Flow, 2. HX 'in', 3. HX 'out' and on Potable side: 1. Flow, 2. Solar storage tank 'in', 3. HW tank 'out'. Ethernet line with connection to "always on" internet service required (by owner.)



amatis THE ENERGY OF THINGS



Monitor Performance
Improve Efficiency
Save Money

The Amatis Joule Kit monitors the performance and efficiency of solar hot water systems. This intelligent device calculates heat produced by collectors using flow and temperature sensors. Joule meters exactly how much solar energy is created and offers an insurance policy against undetected system failures. Your certified Amatis distributor can quickly and easily install our advanced monitoring solution bringing your system online in minutes.



Track Your Energy
Protect Your Investment

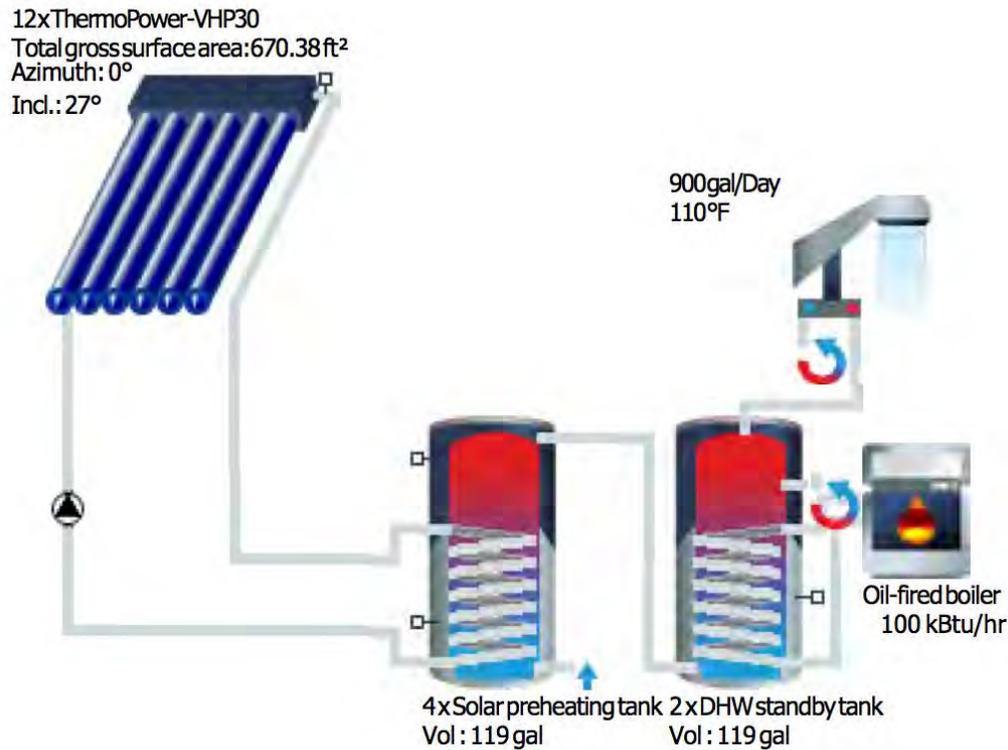
The Amatis Energy Dashboard displays your system's performance data on any computer or mobile device. Your most essential energy data is illustrated in real time on our user-friendly website with powerful graphing tools and simple navigation. Our advanced monitoring solution tracks detailed energy data and helps identify any system faults. The dashboard provides powerful analytics that are easy to view and understand.



Amatis Controls
111 AND SALT AVE. AUSTIN, TX 78704

7. Solar Circuit.

Closed loop 40% glycol 60% water system, with “drainback” stagnation control. System diagram as indicated below. System to include variable speed pumps, and tank internal heat exchangers such that system produces 3 PSI or less pressure drop on potable side at maximum flow rate. Flow rate to be maximum 4 fps.



8. Thermal Insulation.

The piping and fittings will conform to ASTM and ASME standards with either 3/4" EPDM (rubber) or 1" of fiberglass insulation. On the exterior piping, the CSST lines will have a UV proof film or be sleeved in schedule 40 PVC.

9. Heat Rejection.

No heat rejection necessary given unpressurized drain back design for solar loop. Solar fluid will drain from collectors into drainback tank when tanks are satisfied or when no sun is present thus eliminating possibility of freezing, overheating or over pressurization.

10. Code Requirements, Warranties, etc.

Installer warrants the system will adhere to all applicable code requirements of the Town of Nantucket. Installer warrants the system will adhere to MassCEC requirements. 1 year system maintenance and monitoring required. 10 year collector, 5 year tank, and 2 year labor and 'balance of system' warranties required. Contract will be "design-build" and general conditions, all trades, equipment, fittings, appurtenances, soffits and finish work, engineering, permitting, rigging/hoisting, rubbish removal etc. need be included in bid price. See estimate from *New England Solar Hot Water* Exhibit B.

The following reference standards will be adhered to:

IAPMO Codes:

- Uniform Solar Energy Code, 2009
- Uniform Plumbing Code, 2009
- Uniform Mechanical Code, 2009

ASHRAE Manuals:

- ASHRAE 90003 Active Solar Heating Design
- ASHRAE 90336 Active Solar Heating Systems Oper. & Maint.
- ASHRAE 90342 Active Solar Heating Systems Installation
- ASHRAE 93 Methods of Testing

National Fire Protection Association (NFPA)

American Society of Civil Engineers (ASCE)

- 7-05 Minimum Design Loads for Buildings

Massachusetts Building Code, 8th edition.

70 National Electrical Code Chapter 2

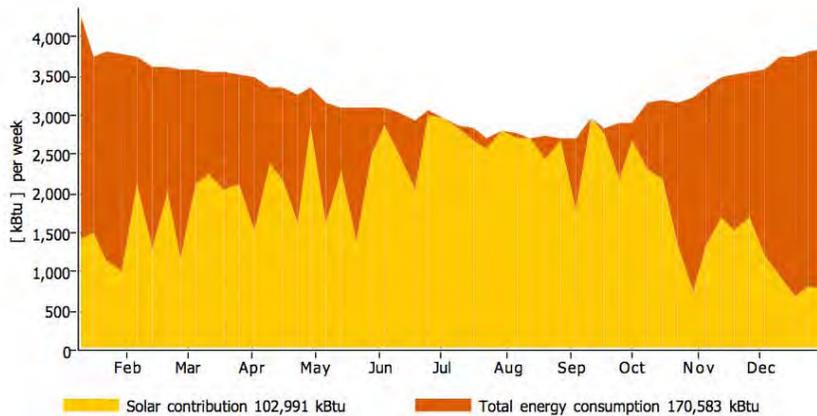
National Roofing Association (NRCA)

C. Project Economics

1. Energy Production, etc.

TSOL energy modeling software predicts fuel oil savings of 1,213 gallons per year and a "solar fraction" of 60%. For detail on modeled system production and solar fraction please see attached **Exhibit C. TSOL Report**.

Solar energy consumption as percentage of total consumption



2. Financial Analysis

System cost is estimated at \$70,955 (including 15% prevailing wage factor.) After rebate, the **net investment would be \$13,445**. Maintenance costs are estimated at an average of \$355 per year. This work can be performed by OIH facility staff utilizing local plumbers with oversight from the SHW installer. At the current discounted fuel price with 2.5% annual escalation, **simple payback is 5 years** with an Internal Rate of Return (IRR) of 18.9% over 20 years. An analysis based on a 5 year historic average fuel price results in a **simple payback of 3.5 years** and an Internal Rate of Return (IRR) of 25.3%. For detail on both scenarios, please see attached Exhibit A. Financial Analysis. The analysis is for the municipal non-profit building owner. A third party for-profit system ownership structure is not likely possible given the small system size.

3. Incentives.

Because the owner is a municipal non-profit, federal tax incentives are not available. However, the MassCEC rebate is available at double the normal rate because the facility houses low income residents. The system specified qualifies for the maximum 80% system cost rebate. A rebate "adder" of \$1,500 for monitoring would also apply. Total incentives are shown in Exhibit A. Financial Analysis.

The MA DOER is also currently writing rules and regulations for a new program for renewable thermal alternative energy credits (AECs.) The program is modeled on the SREC program for PV. Currently it is unclear as to the exact calculation and how AECs will interact with the MassCEC rebate program. Therefore this potential incentive is not included in this analysis.

List of Exhibits:

EXHIBIT A. Financial Analysis

EXHIBIT B. Preliminary System Cost Estimate

EXHIBIT C. TSOL Energy Analysis

EXHIBIT D. Structural Analysis

EXHIBIT A. Financial Analysis

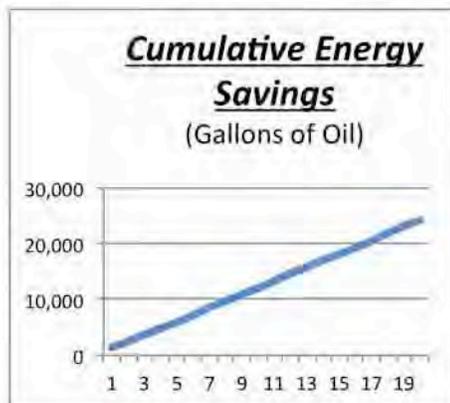
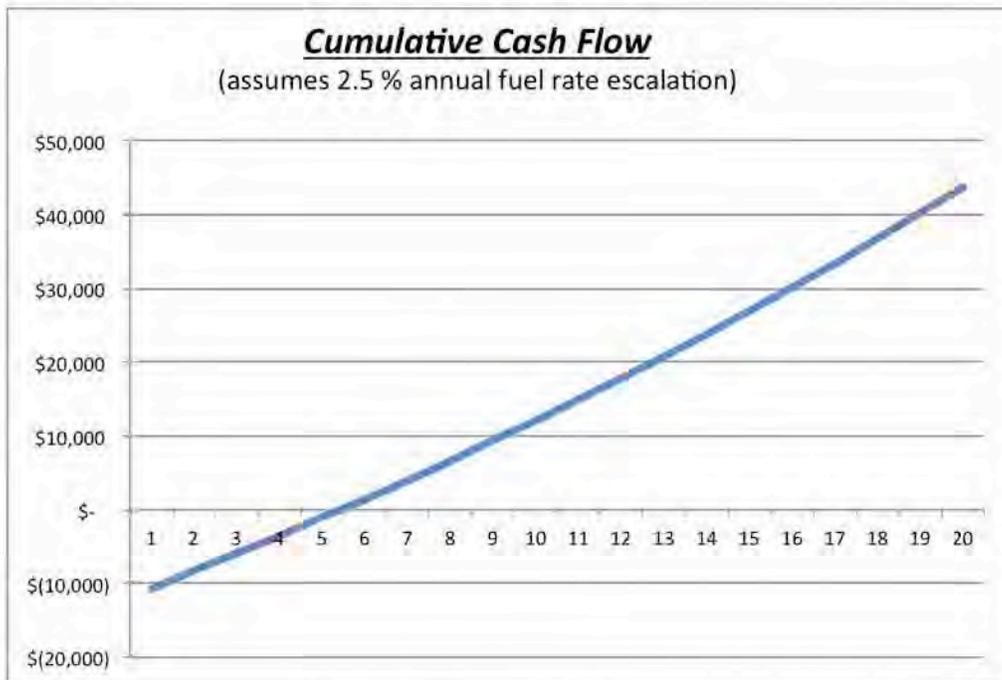
Our Island Home

10/27/2016

1 East Creek Rd., Nantucket, MA

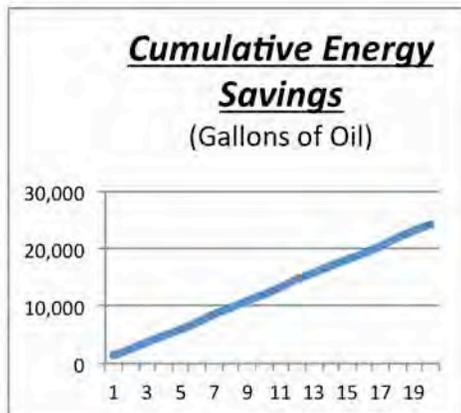
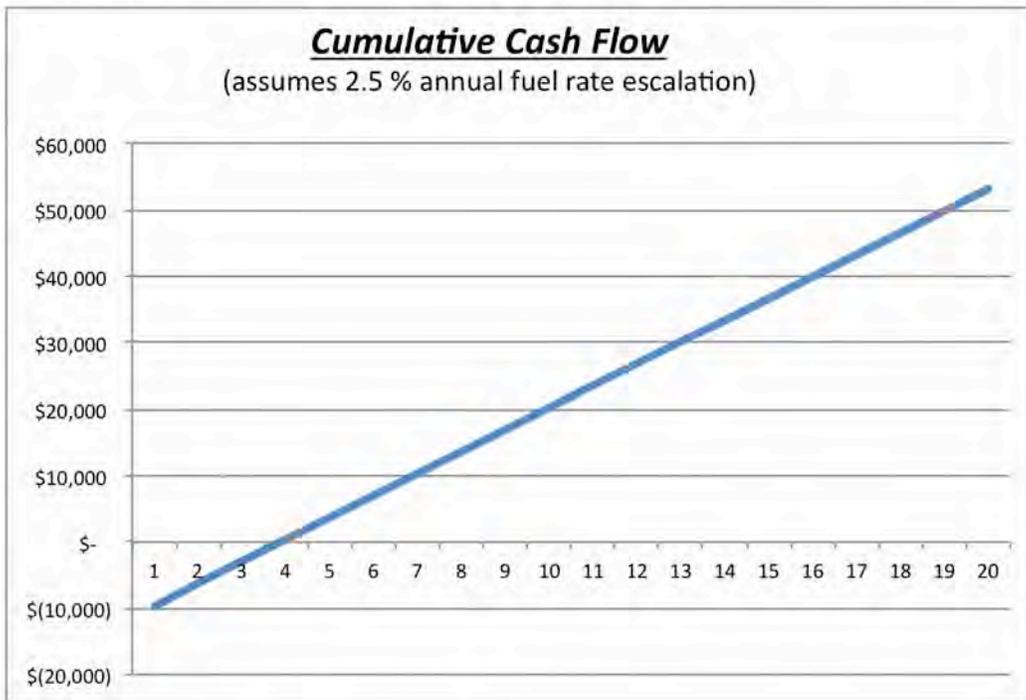
Investment Analysis: Solar Hot Water System

System Size	12 collectors	System Cost	\$70,955
Total Collector Area	670 SF	Design Development	incl.
Annual Oil Savings	1,213 gallons	Structural Engineering	incl.
Price	\$2.10 /gallon	Rebate Applications	incl.
Estimated Savings:	\$2,547 (Year 1)	Total Installed Cost:	\$70,955
Maintenance:	\$355 /YR	MassCEC Rebate (low income):	(57,620)
Fuel Escalation Rate:	2.5% /YR	Net Investment:	\$13,335
System Life:	20-25 YRS	Year 1 cash on cash return:	19.1%
Int. Rate of Return (IRR):	18.9% (20 Years)	Payback Year:	5



Total Fuel Oil Saved (20 years):	24,260 Gallons
Total CO2 emissions avoided:	546,578 Pounds
Equivalent Trees Planted:	243 Acres
Equivalent Passenger Car miles:	616,204 Miles

System Size	12 collectors	System Cost	\$70,955
Total Collector Area	670 SF	Design Development	incl.
Annual Oil Savings	1,213 gallons	Structural Engineering	incl.
Price	\$3.00 /gallon	Rebate Applications	incl.
Estimated Savings:	\$3,639 (Year 1)	Total Installed Cost:	\$70,955
Maintenance:	\$355 /YR	MassCEC Rebate (low income):	(57,620)
Fuel Escalation Rate:	0.0% /YR	Net Investment:	\$13,335
System Life:	20-25 YRS	Year 1 cash on cash return:	27.3%
Int. Rate of Return (IRR):	25.3% (20 Years)	Payback Year:	5



Total Fuel Oil Saved (20 years):	24,260 Gallons
Total CO2 emissions avoided:	546,578 Pounds
Equivalent Trees Planted:	243 Acres
Equivalent Passenger Car miles:	616,204 Miles

EXHIBIT B. Preliminary System Cost Estimate

Estimate

Date: 9/24/2016



Salesperson	Job	Delivery Date	Payment Terms
Bruce Dike	Our Island Home, Nantucket Solar hot water preheat system	TBD	TBD

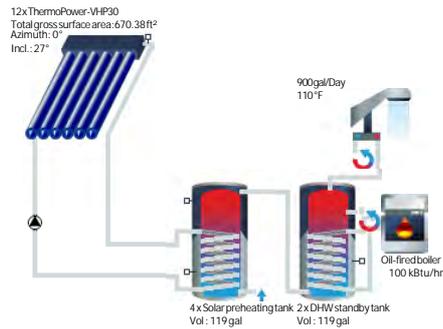
Description	Qty	Unit Price
<p>Included:</p> <ol style="list-style-type: none"> (12) ThermoPower VHP30 (or equivalent) evacuated tube collectors 'Flush mount' racking (2) Wilo Star21 solar pumps Resol BS plus solar controller (4) HTP SSU119SB single coil solar tanks Corrugated Stainless Steel Tubing (CSST) solar line sets with UV proof cladding ('hard copper' piping inside) Knauf '1000 Degree Pipe' fiberglass pipe insulation ('near tank'), 'closed cell' rubber (through ceiling) Custom fabricated drain back tank All req'd fittings, supports, racking, pipe supports, insulation, controls and appurtenances All relevant skilled trades; <ol style="list-style-type: none"> Plumbing, welding, commercial pipe insulation, NABCEP certified solar thermal specialist, solar thermal engineer MassCEC Commercial rebate application. Amatis 'Joule' energy monitoring <p>Not included:</p> <ol style="list-style-type: none"> Structural reinforcement of existing structure. This proposal assumes that the structure is sufficient for the proposed loads. Dedicated duplex branch outlet required near tank location Potable plumbing connections to tanks or potable plumbing work Boiler piping or boiler related control wiring For prevailing wage job w/off-island contractor add 15%. <p>Warranty: 10 years collectors, manufacturer's warranty on balance of equipment, 2 years labor</p>		
Total		\$61,700

www.neshw.com
 54 Corporate Park Drive, Suite 510, Pembroke, MA 02359
 Phone: 781 536 8633 bruce@neshw.com

EXHIBIT C. TSOL Energy Analysis

-
-
nantucket tubes, 60% eff.

Variant 1



Results of annual simulation

Installed collector power:		148.75 kBtu/hr
Installed solar surface area (gross):		670.38 ft ²
Irradiation on to collector surface (active):	323.03 MMBtu	481.89 kBtu/ft ²
Energy delivered by collectors:	107.18 MMBtu	159.88 kBtu/ft ²
Energy delivered by collector loop:	105.82 MMBtu	157.85 kBtu/ft ²
DHW heating energy supply:		161.04 MMBtu
Solar contribution to DHW:		102.61 MMBtu
Energy from auxiliary heating:		67.3 MMBtu
Fuel oil savings:		1,212.6 gal
CO2 emissions avoided:		26,925.23 lbs
DHW solar fraction:		60.4 %
Fractional energy savings (DIN CEN/TS 12977-2):		60.8 %
System efficiency:		31.8 %

-
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nantucket tubes, 60% eff.
Variant 1



Site data

Climate file

Location:	NANTUCKET MEMORIAL AP
Climate data record:	"NANTUCKET MEMORIAL AP"
Total annual global irradiation:	1352.389 kWh/m ²
Latitude:	41.25 °
Longitude:	70.05 °

Domestic hot water

Average daily consumption:	900 gal
Desired temperature:	110 °F
Consumption profile:	Senior citizens' home
Cold water temperature:	February: 47.3 °F August: 55.4 °F
Circulation:	Yes

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nantucket tubes, 60% eff.
Variant 1

System

Collector loop

Manufacturer:	SunMaxx Solar
Type:	ThermoPower-VHP30
Number:	12.00
Total gross surface area:	670.38 ft ²
Total active solar surface area:	670.38 ft ²
Tilt angle:	27 °
Collector Orientation:	180 °
Azimuth:	0 °

DHW standby tank

Manufacturer:	Standard
Type:	2 x DHW standby tank
Volume:	2 x 119 gal

Solar preheating tank

Manufacturer:	Standard
Type:	4 x Solar preheating tank
Volume:	4 x 119 gal

Auxiliary heating

Manufacturer:	Standard
Type:	Oil-fired boiler
Nominal output:	100 kBtu/hr

Legend

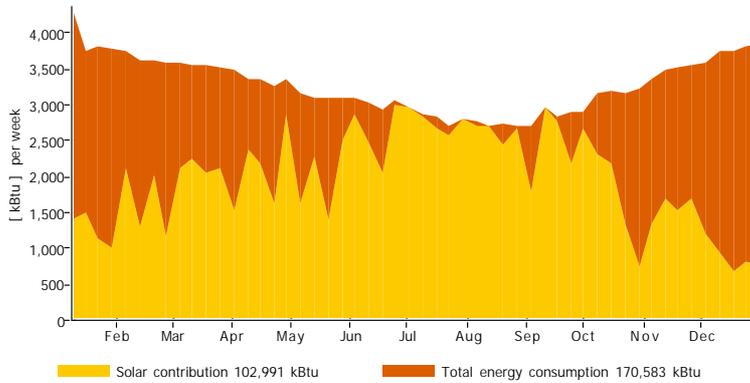
With test report
Solar Keymark



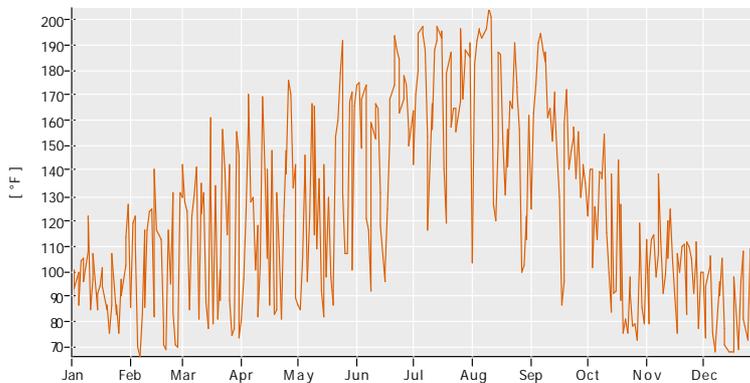
nantucket tubes, 60% eff.

Variant 1

Solar energy consumption as percentage of total consumption



Daily maximum collector temperature

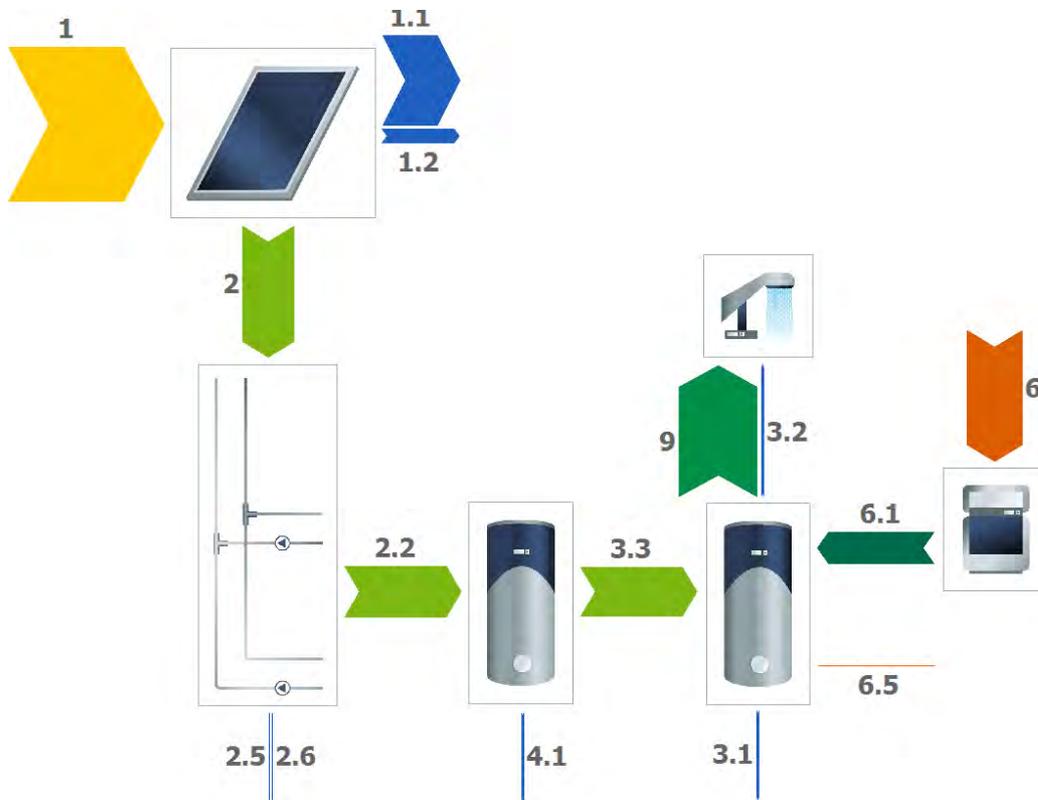


These calculations were carried out by T*SOL Pro 5.5 (R11) - the simulation program for solar thermal heating systems. The results are determined by a mathematical model calculation with variable time steps of up to 6 minutes. Actual yields can deviate from these values due to fluctuations in climate, consumption and other factors. The system schematic diagram above does not represent and cannot replace a full technical drawing of the solar system.

-
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nantucket tubes, 60% eff.

Variant 1

Energy balance schematic



Legend

1	Irradiation on to collector surface (active)	323,033 kBtu
1.1	Optical collector losses	187,996 kBtu
1.2	Thermal collector losses	27,865 kBtu
2	Energy from collector array	107,178 kBtu
2.2	Solar energy to preheating tank	105,818 kBtu
2.5	Internal piping losses	950 kBtu
2.6	External piping losses	410 kBtu
3.1	Tank losses	5,422 kBtu
3.2	Circulation losses	3,494 kBtu
3.3	Preheating tank to tank	102,610 kBtu
4.1	Tank losses (S)	3,265 kBtu
6	Final energy	115,882 kBtu
6.1	Supplementary energy to tank	67,342 kBtu
6.5	Electric element	0 kBtu

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nantucket tubes, 60% eff.
Variant 1



9	DHW energy from tank	161,040 kBtu
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nantucket tubes, 60% eff.

Variant 1

Glossary

1	Irradiation on to collector surface (active) Solar energy irradiated onto tilted collector area (active surface area)
1.1	Optical collector losses Reflection and other losses
1.2	Thermal collector losses Heat conduction and other losses
2	Energy from collector array Energy output at collector array outlet (i.e. before piping)
2.2	Solar energy to preheating tank Collector array energy minus piping losses
2.5	Internal piping losses Internal piping losses
2.6	External piping losses External piping losses
3.1	Tank losses Heat losses via surface area
3.2	Circulation losses Circulation piping losses
3.3	Preheating tank to tank Heat from preheating tank to tank
4.1	Tank losses (S) Heat losses via surface area
6	Final energy Final energy supply to system. This can be supplied from natural gas, oil or electricity (not including solar energy) and takes efficiency into account.
6.1	Supplementary energy to tank Supplementary energy (e.g. boiler) to tank
6.5	Electric element Energy from electric water heater element
9	DHW energy from tank Heat from tank (exluding circulation) for DHW consumption

EXHIBIT D. Structural Analysis



EAH Structural Consulting
11 Ponybrook Lane
Lexington, MA 02421
PHONE 1.978.406.8921
Elaine@EAHstructural.com

August 2nd, 2016

To: New England Solar Hot Water
677 Temple Street
Duxbury, MA 02332

Subject: Structural Certification for
Installation of Solar Panels
Our Island Home
9 East Creek Road
Nantucket, MA 02554

To whom it may concern:

A design check for the subject buildings was done on the existing roofing and framing systems for the installation of solar panels over the roof. From the site inspections, the existing roof support structures were observed as follows:

The roof consists of asphalt shingle over 2-in gypsum planks over 14J4 steel open web joists at 48" o.c.. The steel joists have a horizontal span of 28'-0" and a slope of 30 degrees. The steel joists are supported by W21x44 steel wide flange I-beams at the ridge, and W16x31 I-beams at the eave. The span of the steel I-beams is 24'-0".

All the steel open web joist sizes were conservatively estimated based on blueprints provided by New England Solar Hot Water.

The existing roof framing systems are judged to be adequate to withstand the loadings imposed by the installation of the solar panels. No reinforcement is necessary.

I further certify that all applicable loads required by IBC 2009 with Massachusetts amendments were applied to the solar ballast system and analyzed. The applicable loads are indicated in the load combination table and the summation of maximum loads indicated on permit plan, which is part of this submittal package. Furthermore, I was informed that the installation crews have been thoroughly trained to install the solar hot water panels based on the specific roof installation instructions developed by the manufacturer. Finally, I accept the certifications indicated by the solar panel manufacturer for the ability of the panels to withstand high wind and snow loads.

Sincerely,

Elaine A. Huang, P.E.
Structural Engineer





Project:	Our Island Home
Client:	New England Solar Hot Water
Location:	9 East Creek Road, Nantucket, MA 02554
Date:	8/2/2016
Engineer:	Elaine A Huang, PE

Load and Load Combination:

Dead Load:

2-in Gypsum Deck = 3 psf (ASCE-7 Table C3-1)
Asphalt Shingles = 3 psf (ASCE-7 Table C3-1)
Finished Ceiling and misc = 5 psf
Solar Hot Water Panels = 5 psf (Given by Product Catalog)
Total Dead Load = 3 + 3 + 5 + 5 = **16 psf**

Snow Load:

Ground Snow Load, P_g :
Town of Nantucket, MA = 25 psf (Mass Building Code, 780 CMR, 8th Ed.)

Flat Roof snow load = $P_f = 0.7 C_e C_t I p_g = 0.7 \times 1.0 \times 1.0 \times 1.1 \times 25 \text{ psf} = 19.3 \text{ psf}$ (ASCE-7, Eq. 7-1)
 C_e = exposure factor = 1.0, (ASCE-7, Table 7-2), Terrain C, Partially Exposed
 C_t = thermal factor = 1.0 (ASCE-7, Table 7-3)
 I = importance factor = 1.1 (ASCE-7, Table 7-4), occupancy category III

⇒ Use 25 psf

Wind Speed:

Basic Wind Speed:
Town of Nantucket, MA = 110 mph (Mass Building Code, 780 CMR, 8th Ed.)

Wind Pressure:

$Q_z = 0.00256 K_z K_{zt} C_{net} V^2$ (IBC Equation 16-35)
 $K_z = 0.81$ (50' building) (IBC refers to ASCE-7)
 $K_{zt} = 1.0$ (IBC refers to ASCE-7)
 $C_{net} = 0.41$ or -1.17 (Components and Cladding, zone 2) (IBC Table 1609.6.2)
 $V = 120 \text{ mph}$ (Mass building code 8th ed.)

Therefore, $q_z = 0.00256 \times 0.81 \times 1.0 \times 0.41$ or $-1.17 \times 120^2 = \mathbf{12.2 \text{ psf and } -34.9 \text{ psf}}$ (uplift) (IBC Equation 16-35)

Seismic Load

$S_s = 0.15$ (Mass Building Code 8th ed. Table 1604.11)
 $S_1 = 0.047$ (Mass Building Code 8th ed. Table 1601.11)

Spectral Response Acceleration coefficients:

$$S_{M5} = F_a S_s = 1.6 \times 0.15 = 0.240 \text{ (IBC Equation 16-37)}$$

$$S_{M1} = F_v S_1 = 2.4 \times 0.047 = 0.112 \text{ (IBC Equation 16-38)}$$

Design Spectral Response Acceleration Parameters:

$$S_{D5} = 2/3 \times S_{M5} = 2/3 \times 0.240 = 0.160 \text{ (IBC Equation 16-39)}$$

$$S_{D1} = 2/3 \times S_{M1} = 2/3 \times 0.112 = 0.0747 \text{ (IBC Equation 16-40)}$$

According to IBC Table 1613.3.5 (1) and (2), the seismic design category is "B" and the calculation can be finished by using ASCE-7 equivalent force procedure.

The importance factor, I , for this building is 1.0.

The response modification coefficient, R , is 3.25 according to ASCE-7.

$$T_L = 6 \text{ sec (ASCE Fig 22-15)}$$

$$T = C_t h_n^x = 0.028 \times 50^{0.8} = 0.64 \text{ sec (ASCE-7 Equation 12.8-7)}$$

The seismic response coefficient, C_s , is

$$C_s = S_{D5} I / R = 0.160 \times 1.0 / 3.25 = 0.0492$$

$$\text{The maximum value of } C_s = S_{D1} I / (TR) = 0.0747 \times 1.0 / (0.64 \times 3.25) = 0.0359$$

The minimum value of $C_s = 0.01$

Therefore, $C_s = 0.059$

IEBC Section 707.5 states that the lateral resisting frame structural elements need not comply with Section 807.4 if the alteration does not increase the demand-capacity ratio by more than 10%. In this case, the panels' weight, 5 psf, is extremely small compared to floor live load (60 psf/floor for assembly area, 100 psf for storage) and building dead load. Therefore, seismic design should not be considered.

Load Combination (ASD): (IBC 2009 Ch16)

$$D + S = \mathbf{41 \text{ psf}} \text{ (Eq 16-10)}$$

$$0.6D + W = -25.3 \text{ psf (Eq 16-13)}$$

$$D + 0.75 (0.6W) + 0.75S = 40 \text{ psf (Eq 16-14)}$$

Roof Structures



The roof consists of asphalt shingle over 2-in gypsum planks over 14J4 steel open web joists at 48" o.c.. The steel joists have a horizontal span of 28'-0" and a slope of 30 degrees. The steel joists are supported by W21x44 steel wide flange I-beams at the ridge, and W16x31 I-beams at the eave. The span of the steel I-beams is 24'-0".

Structural Analysis and Calculation

14J4 steel joists

Member Size = 14J4

Spacing = 48" O.C.

Span Length = 28' approximately

$$w = 41 \text{ psf} \times 48 \text{ in}/(12 \text{ in}/\text{ft}) + 6.0 \text{ lbs}/\text{ft} \text{ (joist selfweight)} = 170 \text{ lbs}/\text{ft} = 0.170 \text{ K}/\text{ft}$$

Check moment capacity:

$$M = 0.125wL^2 = 0.125 \times 0.170 \text{ K}/\text{ft} \text{ (selfweight included)} \times 28^2 \text{ ft}^2 = 16.66 \text{ K}\cdot\text{ft}$$

$$M/S = 16.66 \text{ K}\cdot\text{ft} \times 12 \text{ in}/\text{ft} / 8.0 \text{ in}^3 = 24.99 \text{ Ksi}$$

$$F_y = 50 \text{ Ksi} \times 0.6 = 30 \text{ Ksi, OK}$$

Check deflection:

$$\Delta = 5wL^4/384EI = [5 \times 0.170 \text{ K}/\text{ft} \times 28^4 \text{ ft}^4 \times 12^3 \text{ in}^3/\text{ft}^3]/[384(29000 \text{ Ksi})(56 \text{ in}^4)] = 1.44 \text{ in}$$

$$L/200 = 28.0' \times 12 \text{ in}/\text{ft}/200 = 1.68 \text{ in, OK}$$

W21x44

Check moment capacity:

$$W = 41 \text{ psf} \times 28' = 1148 \text{ lbs}/\text{ft} = 1.148 \text{ K}/\text{ft} \text{ say } 1.20 \text{ K}/\text{ft}$$

$$M = 0.125wL^2 = 0.125 \times 1.20 \text{ K}/\text{ft} \text{ (selfweight included)} \times 24^2 \text{ ft}^2 = 86.4 \text{ K}\cdot\text{ft}$$

$$M_{px}/\Omega_b = 238 \text{ K}\cdot\text{ft, OK}$$



Check shear capacity:

$$V = 1.2 \text{ K/ft} \times 24 \text{ ft}/2 = 14.4 \text{ K}$$

$$V_{nx}/\Omega_v = 145 \text{ K, OK}$$

Check deflection:

$$\Delta = 5wL^4/384EI = [5 \times 1.2 \text{ K/ft} \times 24^4 \text{ ft}^4 \times 12^3 \text{ in}^3/\text{ft}^3]/[384(29000 \text{ Ksi})(843 \text{ in}^4)] = 0.366 \text{ in}$$

$$L/360 = 24.0' \times 12 \text{ in/ft}/360 = 0.800 \text{ in, OK}$$

W16x31

Check moment capacity:

$$W = 41 \text{ psf} \times 14' = 574 \text{ lbs/ft} = 0.574 \text{ K/ft say } 0.65 \text{ K/ft}$$

$$M = 0.125wL^2 = 0.125 \times 0.65 \text{ K/ft (selfweight included)} \times 24^2 \text{ ft}^2 = 46.8 \text{ K-ft}$$

$$M_{px}/\Omega_b = 135 \text{ K-ft, OK}$$

Check shear capacity:

$$V = 0.574 \text{ K/ft} \times 12 \text{ ft}/2 = 3.44 \text{ K}$$

$$V_{nx}/\Omega_v = 87.3 \text{ K, OK}$$

Check deflection:

$$\Delta = 5wL^4/384EI = [5 \times 0.65 \text{ K/ft} \times 12^4 \text{ ft}^4 \times 12^3 \text{ in}^3/\text{ft}^3]/[384(29000 \text{ Ksi})(375 \text{ in}^4)] = 0.0278 \text{ in}$$

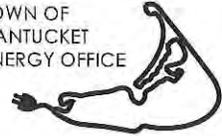
$$L/360 = 24.0' \times 12 \text{ in/ft}/360 = 0.800 \text{ in, OK}$$



Planning and Land Use Services

Building ▪ Energy ▪ Historic District Commission ▪ Planning Board ▪ Zoning Board of Appeals

TOWN OF
NANTUCKET
ENERGY OFFICE



Zak Farkes
Project Developer
Borrego Solar Systems Inc.
55 Technology Drive, Suite 102
Lowell, MA 01851

August 26, 2016

Re: Permission to Include Nantucket Municipal Properties in Borrego's Response to the NGRID Solar Phase III Program RFP

Mr. Farkes:

Please accept this letter as confirmation that the Town of Nantucket ("the Town") has granted Borrego Solar Systems, Inc. ("Borrego") permission to include certain Town and other Municipally controlled parcels of land as referenced in the enclosed in Borrego's response to the Solar Phase III Program RFP that has been issued by Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid (together, "NGRID").

Should Borrego secure an award from NGRID, the Town agrees to move into lease discussions only after MGL Chapter 30B Uniform Procurement Act requirements have been met to the satisfaction of the Town's legal counsel. Please be advised that the Town reserves the right to rescind this letter at its sole discretion.

Sincerely,

Town of Nantucket Energy Office

By: Lauren M. Sinatra
Its: Energy Coordinator
Duly authorized

Enclosure: Parcel list

cc. C. Elizabeth Gibson, Town Manager
Kara Buzanoski, Public Works
Robert Gardner, Wannacomet Water Company
Tom Rafter, Nantucket Memorial Airport
Andrew Vorce, Planning & Land Use Services

Municipally controlled parcels permitted for inclusion in bid responses to the Solar Phase III Program RFP issued by National Grid on August 15, 2016:

- **Surfside Waste Water Treatment Facility (land and roof space)**

- Parcel ID No.s:

- 87 82
- 87 85
- 87 86
- 87 87
- 87 88
- 87 89
- 87 90
- 87 135

- **Nantucket Memorial Airport (land)**

- Parcel ID No.s:

- 78 108
- 78 109
- 78 110
- 78 111
- 78 112
- 78 16 (portion)
- 78 3 (portion)

- **Wannacomet Water Company (land)**

- Parcel ID No.:

- North Pasture: 54 94.1 (portion)
- Sconset Water Tower: 73.16

- **Landfill & Recycling Facility (roof space only)**

- Parcel ID No.:

- 58 38.1



Planning and Land Use Services

Building ▪ Energy ▪ Historic District Commission ▪ Planning Board ▪ Zoning Board of Appeals

October 28, 2016

Dear Mr. Judge:

Please accept the following comments regarding the *Current Design Considerations for the Next Generation Solar Incentive*. I wish to raise several concerns related specially to the proposed Land Use & Siting Criteria and the Nantucket Load Share Apportionment Block. I also offer a suggestion for an additional add-on tariff for consideration, which could help promote solar growth in low-saturation, priority utility distribution areas.

As you may know, there are many unique challenges to successfully developing solar on Nantucket, most of which can be attributed to the island's remoteness. As an island Town and County, Nantucket is strictly limited in our available land area. As a result, there is a lack of developable land, which comes at a premium cost and is subject to competing local interests. The island's geographic location 30-miles off the coast of Cape Cod naturally increases project construction costs by up to 50%. Not only are solar development costs higher because of special transportation and travel logistics, but also because of the difficulty of securing reasonable insurance policies since all Nantucket projects are located in extremely high wind zones and within 1-3miles of the ocean.

However, Nantucket has an especially compelling need to develop solar energy, as recent National Grid energy forecasts show Nantucket's peak load growing five times the statewide average. Due to this significant load growth, Nantucket has been targeted by National Grid for a Non-Wires Alternative project to help defer a costly and disruptive third undersea transmission cable through traditional and alternative peak reduction strategies—among them being the need for increased renewable energy (along with battery energy storage systems).

In reviewing the proposed "Land Use & Siting" criteria, we are strongly opposed to the inclusion of a "Priority Habitat" prohibiting restriction, as we believe it will have the unintended consequence of disqualifying all meaningful solar projects within the entire island of Nantucket for the foreseeable future. Roughly 80% of the island land area is mapped Priority Habitat, as well as BioMap2 Core Habitat. Unlike other communities in the Commonwealth, Nantucket does not have designated Brownfields, highway roadsides, large parking lots suitable for solar canopies, industrial structures with adequately engineered roof areas, nor capped landfills that are encouraged and incentivized for development. Restricting development in land *mapped* as Designated Priority Habitat is especially concerning for Nantucket, where nearly 50% of the island's land area is already protected as open space--home to thriving populations of rare species (also attributable to the island's remoteness).

Based on recent discussions with the Land Use and Siting Solar Stakeholder Workgroup, we strongly oppose a "blanket restriction," on designated priority habitat and instead support: 1) exceptions where the

current permitting processes do not result in “a take,” and 2) the establishment of an exemption process for projects that are presumed to receive or are subject to “a take” determination. For example, there could be a clear, efficient, and expeditious system established for municipalities—and certain affected geographic areas (such as Nantucket), to request a waiver issuance by the Secretary of the EEA for projects where the benefits (economic, environmental, utility distribution) offset the impacts of development.

On the topic of Load Share Blocks, we are pleased to see that there is a separate block specifically allocated for the Nantucket Electric distribution zone, just as Nantucket Electric is allocated a separate net metering capacity from the rest of National Grid in the MassACA. However, the proposed apportionment of 736kw per eight declining blocks is unreasonable and inappropriate for Nantucket. For one reason, the allotment is significantly smaller than the largest project size allowed in the program (i.e. less than 5MW). Furthermore, it is clearly apparent how the current block design is based on a high capacity, rapid solar development model, which is appropriate given the rate of solar growth elsewhere in the Commonwealth. However, on Nantucket where projects take significantly longer to permit, finance, and construct, this type of model simply does not work.

Given the increased cost of developing solar on Nantucket, it is our hope that an alternative block model be considered, perhaps allocating a larger minimum amount of capacity (i.e. 3MW) in blocks 1 and 2. The amount of block allotment must also closely match the current availability of Nantucket Electric’s net metering capacity (6.3MW). We are also interested to exploring whether Nantucket’s allotment can be absorbed into National Grid’s greater block allotment, *only if* an allocated, reserved amount—perhaps based on a percentage of Nantucket Electric’s historical peak load (48MW)— is specifically reserved for Nantucket projects. A separate block amount is important because it will ensure that Nantucket can responsibly develop solar according to its own special considerations and timelines, and without competition from other National Grid territories. It will also help to ensure that adequate and valuable block capacity remains available by 2021, when Nantucket’s landfill is expected to be capped; becoming a prime location for solar development.

Lastly, we ask that the DOER consider an additional tariff adder for “priority utility distribution zones” to help incentivize the development of solar systems in low saturation areas that are strategically installed and operated on certain electric distribution circuits, or are in targeted geographical locations with high electrical and Distributed Generation loads. In the case of Nantucket’s energy forecast and need to reduce summer peak load, this incentive could help support an alternative system design, where panels could be oriented not to achieve maximum solar exposure and economic returns, but to achieve a closer match between peak system output and late afternoon peak-load demands.

Thank you for your consideration.

Lauren Sinatra
Energy Coordinator
Town of Nantucket
Office: 508-325-5379
Email: Lsinatra@nantucket-ma.gov



Planning and Land Use Services

Building ▪ Energy ▪ Historic District Commission ▪ Planning Board ▪ Zoning Board of Appeals

TO: Massachusetts Dept. of Energy Resources
FROM: Lauren Sinatra, Energy Coordinator
RE: PON-ENE-2017-001: *Peak Demand Management Grant Program*
DATE: September 23, 2016

On behalf of the Town of Nantucket Energy Office, please accept this letter of support for Genbright LLC's proposal for Geographically Targeted Peak Demand Management, relating to the Massachusetts Department of Energy Resources' Peak Demand Management Grant Program.

We are proud and excited for Nantucket to potentially serve as a demonstration location for this innovative pilot project, and to be a model for other areas experiencing peak load issues. The Town of Nantucket Energy Office has long been committed to projects to reduce island-wide electricity consumption and given the unique dynamics of the island's electricity demand as outlined in the proposal, we believe that the island presently serves as an optimal geographic location for a demonstration project to reduce summer peak load.

The Town of Nantucket Energy Office is supportive of this project as it has the potential to benefit Nantucket constituents by demonstrating the real potential of a larger scale program that can deliver significant taxpayer savings through reduced energy costs, while contributing to overall community sustainability and economic development. Not only will local participants achieve increased comfort and energy bill savings, but also will be "doing their part" for the greater good of the island by helping to minimize the scope and need for traditional contingency support such as emergency diesel generation (in the heart of the historic downtown) and the additional undersea cable.

A targeted energy efficiency campaign is already playing an important role on the island to manage electricity demand and we are confident that new and emerging technologies such as Ice Energy's thermal storage solution will further result in critical peak load reductions and significant energy-cost savings for Nantucket's year round and seasonal residents.

The Town of Nantucket Energy Office recognizes that this pilot may help to demonstrate the ability to defer the third undersea cable through innovative technologies and methods, and that this proposed project may be used to initiate a wider and larger scale effort undertaken by National Grid and/or competitive energy service companies such as Genbright. It is for these reasons that we support the Company's petition. Should you have any questions regarding our letter of support for this filing, please contact me directly.

Sincerely,

Lauren Sinatra
Energy Coordinator
Town of Nantucket
Office: 508-325-5379
Email: Lsinatra@nantucket-ma.gov



Project Summary/Abstract

Project Title: Nantucket Peak Demand Pilot

Name of the Applicant: Genbright LLC

Project Director: Joe Crespo

Background

According to Nantucket's electric utility company, National Grid, the demand for electricity on the island is growing at more than five times the Massachusetts state average, peaking in summer afternoons and evenings. On August 14, 2016 at around 6pm, peak demand was the highest ever recorded for the Island, reaching an estimated 47 MW. Additionally, over the next five years, the growth rate is currently forecasted to be approximately 3%, which is nearly triple the average growth rate forecasted for the entire state of Massachusetts.

If demand continues to increase at this rate, National Grid forecasts that a third underwater delivery cable will be necessary by 2029, at an estimated cost of \$75-\$100 million dollars; an investment historically paid for by Nantucket ratepayers¹. It is possible that this investment may be deferred if new technologies are deployed to reduce peak demand.

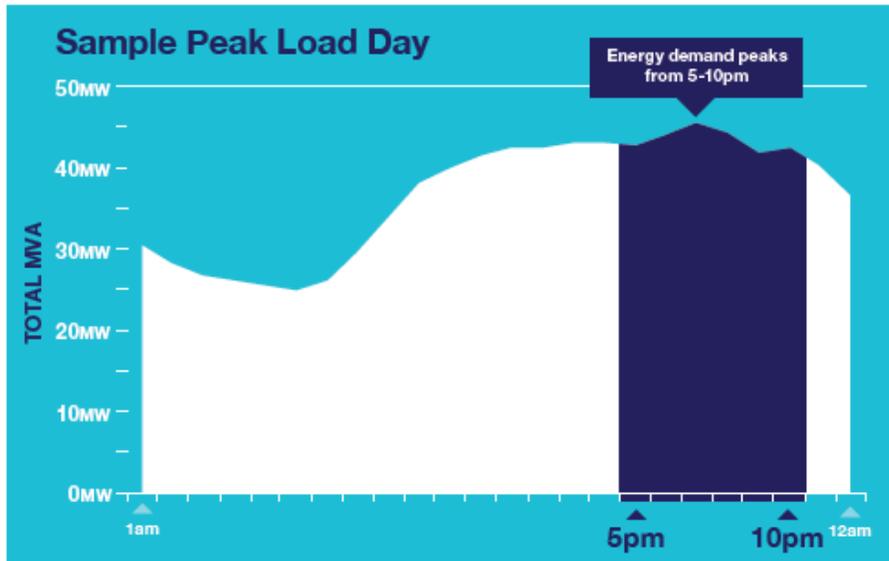
Air conditioning load is widely recognized across the utility industry as the most significant contributor to overall energy consumption, and on peak demand, during the summer season. Currently, residential and commercial air-conditioning market penetration together comprises 25% to 30% of all utility electrical on peak demand across the United States. Neither business nor residential customers want to be without air conditioning during extreme temperature conditions. This situation is exacerbated in the summer months in resort-type locations like Nantucket communities that have an influx of summer residents, visitors, and tourists. The hot and humid temperatures result in extremely high air-conditioning demand during the months of July and August. Air conditioning on peak loads cause significant concerns for electric reliability, efficient asset utilization, and negative environmental impacts. The nature and location of these peak loads combined with societal and regulatory pressures creates an unique opportunity to address undersea transmission upgrades with targeted, dispatchable behind-the-meter load management assets.

The Nantucket Need

Electric service is currently delivered to all Nantucket residents and businesses through two undersea cables that originate on Cape Cod, nearly 30 miles away. One cable has 36 megawatts (MW) of capacity and the other has 38MW of capacity. Each cable serves half of the electric demand under normal conditions, so in the unlikely event of one cable failing, all electric demand will be served by the other cable. The island also relies upon 30-year old diesel generators for back-up power and load relief.

Under normal conditions, in ten months out of the year, the average demand for electricity amounts to approximately 15-20 MW, with some growth each year. This is less than the capacity of even one of the two cables. However, during certain times, such as the afternoons and evenings of hot, humid periods in the summer months, the demand for electricity rises considerably, peaking during the hours of 5-10 pm.

¹ National Grid customers on Nantucket pay an extra "cable facility surcharge" on their monthly electric bills that finances the cost of the existing two cables until 2026. This surcharge approximates to an added 15% distribution cost for Nantucket ratepayers.



According to new data from the US Census Bureau, Nantucket, the smallest county in Massachusetts, is the state’s fastest growing².

	Nantucket	State of MA
Annual Growth Historical (5 Year Average)	3.6%	0.6%
5 Year Forecast	3.2%	1.1%
15 Year Forecast	2.2%	0.8%

A recent National Grid study has concluded that based on the current forecasts, a third undersea cable will be needed in service by 2029 if nothing is done to slow the growth of energy demand on Nantucket. Although National Grid will continue to evaluate this need and timeframe in light of updated electric load forecasts each year, **the island presently serves as an optimal geographic location for a demonstration project to reduce seasonal peak load.**

Reducing Peak Demand on Nantucket Using a Thermal Storage Solution

One technology that was proposed by National Grid to reduce on peak demand on Nantucket was presented in a petition for a Non-Wires Alternative pilot project to the Massachusetts Department of Public Utilities (DPU)³. This solution involved using a thermal storage unit provided by Ice Energy. Ice Energy’s Ice Bears are HVAC systems that use ice storage, instead of conventional air conditioning compressors to cool buildings and homes during utility peak times. The Ice Bear charges by making ice during off-peak hours and discharges by using the stored ice to cool buildings during peak hours. Ice Energy’s smart ice battery reduces on peak cooling electricity by 95% for up to 6 hours a day, every day.

² Infographics from “Demand Link Nantucket FAQ”:<https://www.nationalgridus.com/media/pdfs/resi-ways-to-save/0416-natgrid-ma-hes-ngma-353598-nantucketfaqdocument-v6.pdf>

³ National Grid withdrew its application with the MA DPU for the Nantucket Non-Wires Alternative project (Docket 16-06). If National Grid elects to re-file a Nantucket Non-Wires Alternative project, then Genbright LLC is willing to provide National Grid an option to purchase the Ice Bears funded in part by this DOER grant, at an amount equal to or less than National Grid’s original budget for the Ice Bears, minus the DOER’s cost share.

Nantucket has more than 11,000 residential electricity customers and approximately 1,400 commercial accounts. The residential sector comprises approximately 80% of the energy usage and the remaining 20% is comprised mainly of small commercial customers. Given the seasonal nature of many accounts that reflect summer residents and tourism, the summer peak is more than two times the average year-round demand and this ratio is significantly higher in Nantucket than typical markets. These characteristics make Nantucket an excellent candidate for peak demand reduction programs, and especially for peak demand reduction utilizing methods targeting summer cooling (HVAC) loads, such as Ice Energy's residential and commercial Ice Bears.

The reason why public funding is both necessary and appropriate for such programs is that the benefits of individual customer participation in any peak demand reduction program accrue to the community of Nantucket and other ratepayers in Massachusetts. Thus funding is both necessary and appropriate to incentivize participation in the on peak reduction program. Furthermore, the benefits of peak demand reduction, which include the deferral of a third undersea cable, are far greater than the costs.

Genbright's Proposed Peak Demand Reduction Program

Genbright, with support from Ice Energy and the Town of Nantucket Energy Office, is proposing a project to deploy an estimated 250 residential Ice Bears, which will delay approximately 1.1 megawatts (MWs), equal to National Grid's projection of one year's worth of load growth on Nantucket⁴. The total cost of the project will be approximately \$3M. Genbright will share 50% of the project costs with the DOER and recover its investment mainly from using wholesale and retail market mechanisms to capture the market benefits of reducing peak demand. Participating customers will receive the new Ice Bear for substantially less than the cost of a new HVAC system. In addition, with support from Auto-Grid, the Ice Bears will be incorporated into a portfolio of Distributed Energy Resources, developed and managed by Genbright. This will allow Genbright to access additional Federal funds for software development related to monetization of the potential retail and wholesale market incentives that can offset Genbright's cost for the project.

This project has the potential to demonstrate how third party program directors such as Genbright can identify and develop potential non-wires alternatives and other grid related services utilizing a portfolio of clean distributed energy resources (DERs). The project will also demonstrate how such projects can be successfully achieved through collaboration between technology vendors, project directors, municipalities, and local community stakeholders. Finally, utilizing software developed under Genbright's DOE award, this project will demonstrate new potential revenue models and ownership models for non-wires alternatives by utilizing wholesale and retail markets, along with active management of DERs, to help fund projects. Once proven, this portfolio of DERs could be transferred to a utility and/or continue to be operated by Genbright under a performance based contract.

Ice Energy's Ice Bears Represent a Proven Technology

Ice Bears are a proven technology and have already been deployed for similar purposes elsewhere in New England. Since 2005, Ice Bears have been installed in more than 40 utility services, transforming inefficient and polluting air conditioners into efficient and clean cooling systems. With a reliability record in excess of 98%, they benefit both utilities and their customers. Ice Air conditioning units improve the efficiency and resiliency of the grid, lower cooling bills and reduce carbon emissions.

⁴ National Grid Petition Docket 16-06, Exhibit LMF-2 Non-Wires Alternative Pilot Proposal, Section VII Appendix I.

Testimony to the DPU public hearing
re: Municipal Aggregation Plan

Thank you for the opportunity to testify this afternoon. My name is Lauren Sinatra. I am the Energy Coordinator for the Town of Nantucket. I am here to ask you to approve Nantucket's municipal aggregation plan.

Nantucket seeks to use municipal aggregation to provide the benefits of price stability, cost savings, and increased choice to our residents and businesses while also advancing the Town's environmental goals.

- Aggregation has the potential to introduce choice for our community. Choice can be difficult to achieve for any island community, and it tends to be highly valued. Historically, Nantucket has been served by a limited number of electricity suppliers. With the aggregation, we have the possibility of introducing a new electricity supplier and creating choice for our residents and businesses where before there was little.
- In addition, the program will offer participants the option to increase the amount of renewable energy in their electricity supply so that it exceeds the renewable content in Basic Service. As a part of that effort, the Town will seek to purchase Renewable Energy Certificates from local projects when possible in order to support the development of renewable energy in our community.
- The Energy office oversees the many energy-related initiatives on the island. Because of the island's location, energy office staff must shoulder the full burden of implementing and administering any local projects, including the aggregation. The Town plans to take an operational adder from the aggregation and use it as a critical means of support for my role as Energy Coordinator and manager of the aggregation.
- At the same time the aggregation has been designed to provide a series of benefits, it has also been designed with strong customer protections. For example, customers that do not wish to participate in the program will be free to opt out at any time at no cost.

The Town voted to initiate the aggregation process at the April 2, 2016, Town Meeting. The aggregation plan that has been developed during that process has the support of our community and our Board of Selectmen. I urge you to approve it.

Thank you again for the opportunity to testify.



TO: Nantucket Board of Selectmen, Libby Gibson, Lauren Sinatra
FROM: Paul Gromer
CC: John Shortsleeve, Marlana Patton, Joe Shortsleeve
RE: Nantucket Power Choice program implementation progress
DATE: October 26, 2016

Nantucket is well on its way toward launching the Nantucket Power Choice program. Progress to date is as follows:

- 4/2/16 – Public vote at Town Meeting to pursue aggregation.
- 4/20/16 – Program plan for the Nantucket Power Choice aggregation program submitted to the Massachusetts Department of Energy Resources (DOER) for review. This is the first step in the regulatory approval process.
- 5/18/16 – Advisory meeting/plan review with the DOER.
- 6/16/16 – Letter received from the DOER confirming that their review is complete.
- 6/21/16 – Program plan submitted to the Massachusetts Department of Public Utilities (DPU) for approval.
- 9/9/16 – DPU hearing on the program plan.
- *DPU approval – pending. DPU approval is required to launch the program and represents the final step in the regulatory approval process. While DPU approval cannot be predicted, we anticipate it in November.*

So that we can move as quickly as possible when DPU approval comes through, we have completed all of the steps in the electric procurement process that we can now, including;

- July Negotiated a model electric supply agreement.
- Aug Issued a Request for Qualifications (RFQ) to suppliers that are active in aggregations in the Northeast and Midwest.
- Sep Evaluated qualification statements from 7 suppliers, negotiated exceptions taken to the model agreement, and secured approval to pursue indicative prices from the shortlisted suppliers.
- Oct Procured indicative prices and prepared the accompanying energy trends memo to provide context for the evaluation of indicative prices.

Next Steps

We propose the following immediate next steps:

- In order to help obtain DPU approval as soon as possible, we recommend that the Board of Selectmen or Town Manager send a letter to the DPU commissioners asking them to expedite their review of Nantucket's aggregation plan.
- To enable the Town to execute an electricity supply contract once final bids are received, we recommend that the Board of Selectmen authorize the Town Manager to execute a contract as long as the price is below the price of National Grid Basic Service.
 - o This authorization is needed because executable prices will be good only on the day they are received. A decision will need to be made immediately whether to accept a price and sign a contract.

As soon as the DPU approves the aggregation plan, the steps will be:

- 1 week after DPU approval, we will issue an RFP for executable prices.
- 3 weeks after DPU approval, we will receive executable prices and present them to the Town
- If the prices are acceptable, the Town will execute the contract

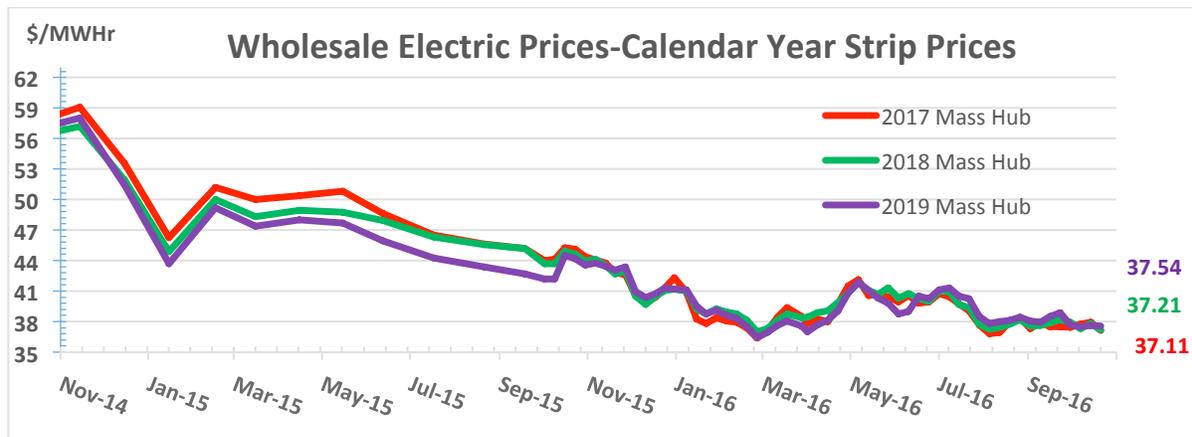
TO: Lauren Sinatra, Nantucket
FROM: John Shortsleeve
CC: Paul Gromer, Marlana Patton, Joe Shortsleeve
RE: Energy Market Update
DATE: October 26, 2016

The following information about the most recent trends in the energy markets is designed to provide some useful perspective to assist with the evaluation of the attached indicative electric bids.

Driving Forces – The two principal forces driving the market rates for retail electric supply are the cost of natural gas and the cost of the regulatory components of the electric price. In FY 2018 and FY 2019 more than 50% of the cost of electric supply will be attributed to regulatory costs.

Wholesale Electric Prices- As natural gas prices have declined, wholesale electric prices have followed suit. The forward prices for wholesale electricity are at record low levels and supported by natural gas prices trading at or near the cost of extraction.

Table 1: Forward Wholesale Electric Prices as of Oct 21, 2016
(Regional Hub Wholesale Calendar Year Strip Prices)



Increasing Regulatory Costs – Regulatory costs on the other hand are at record high levels and going up. The cost of capacity (that is embedded in basic service rates) is expected to increase by 1.9 cents / kWh in June 2017 and then increase another .7 cents / kwh in June, 2018. The capacity prices are set three years in advance in capacity auctions. Table 3 shows these auction results for the cost of capacity in the three load zones in the state, as well as the estimated cost of capacity embedded in the NGRID residential basic service rate.(Note: the NGRID residential basic service rate is a uniform blended rate that is available to NGRID residents in all three load zones in Massachusetts).

Table 2: Projected Cost of Capacity

Time Frame	Capacity Auction Results by load zone \$ / kw of Capacity Tag Value			Capacity cost embedded in Basic Service Rate
	NEMA	SEMA	WCMA	Est \$ / kWh
Beginning June 2016	\$ 6.66	\$ 3.15	\$ 3.15	\$.015
Beginning June 2017	\$15.00	\$ 7.02	\$ 7.02	\$.034
Beginning June 2018	\$ 9.55	\$11.08	\$ 9.55	\$.041
Beginning June 2019	\$ 7.03	\$ 7.03	\$ 7.03	\$.029

While the auction results are known, the capacity cost per kWh will vary based on several factors. These include capacity tag values that vary each year, reserve margins that vary each month and the percent of NGRID load in each zone, which will vary with each basic service procurement cycle. We have used current tag values, reserve margins, and load per zone percentages to estimate capacity cost per kWh embedded in the residential basic service rates.

Impact of Increasing Capacity cost on Nantucket Load Profile

In the past several years the NGRID summer basic service prices have been considerably lower than both the preceding winter and the upcoming winter. For the next two years, due to the timing and magnitude of the June 1 increase in the annual cost of capacity, NGRID summer basic service prices are likely to be close to or even above the preceding winter. That is because the seasonal decline in the commodity prices will be offset by the June 1 increase in capacity cost. The summer rates should continue to be lower than the basic service rates that go into effect in November for the following winter.

In addition, the increasing cost of capacity is emphasizing a misallocation issue. Capacity costs are set based on demand readings in the summer, but then collected over 12 months. As a result, winter consumption is overpaying for capacity costs and summer consumption is underpaying. To address this issue we plan to procure prices based on two rate structures, one that sets a price that is fixed and level year-round, plus a second option that would establish stepped prices, with a winter price and a summer price. Nantucket would have the option to choose either the level pricing or the stepped pricing, on the bid date, when these fully priced options would be presented.

Conclusion

Regulatory costs are driving the increase in electric rates. Assuming no change in the currently low energy markets, the rising cost of capacity will cause the basic service rates to increase (estimated 1.9 cent increase in FY 18 over FY17). We haven't analyzed RPS costs in this memo, but the cost of compliance with the Renewable Portfolio Standards and the solar carve out program will contribute well in excess of 1 cent per kWh to the total regulatory costs that needs to be embedded in the basic service rates for the next several years. Consequently, even if the energy markets remain flat, we expect market rates to increase and basic service rates to increase over the next few years.

November 2, 2016

Angela M. O'Connor, Chairman
Jollette A. Westbrook, Commissioner
Robert Hayden, Commissioner
Department of Public Utilities
One South Station
Boston, MA 02110

Re: Nantucket Municipal Aggregation

Dear Chairman O'Connor and Commissioners Westbrook and Hayden:

As you may be aware, the Town of Nantucket filed a petition for approval of a municipal aggregation plan in June of this year. We are writing to request a prompt decision on our petition to enable us to take advantage of the low, fall electricity prices.

As you know, electricity prices are typically at their lowest in the fall months. This applies not only to the prices for electricity consumed in those months, but also to the prices for annual contracts procured in those months. As the weather turns colder, electricity prices typically rise. The Town would like to move forward with its electricity supply procurement as soon as possible so that we can lock-in lower prices that will benefit our year-round residents this winter.

We understand that you have many important matters demanding your attention. However, we believe that the Nantucket petition may be suitable for a prompt decision. The Department has established very clear guidelines for municipal aggregation plans, and we have followed those guidelines very closely. You will find no surprises in our plan, nothing that is outside of what you have already approved for other communities.

Thank you for considering our request.

Sincerely,

James R. Kelly
Chairman

Our Island Home Work Group (2016)

Pursuant to Article 5 of October 17, 2016 Special Town Meeting

As of 10/31/16

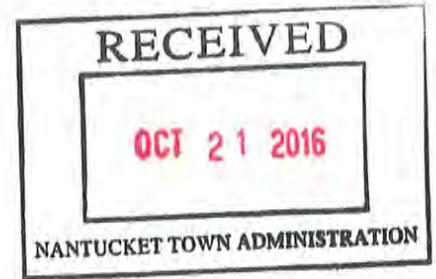
Friends of OIH member (appt by Karttunen) - Alison Forsgren?
Friends of OIH member (appt by Karttunen) -
OIH Family Council member (appt by Karttunen) - Fran Karttunen?
OIH Family Council member (appt by Karttunen) -
Fin. Dept/FinCom rep - FinCom to select a member
BOS rep -
OIH Admin member - Rachel Chretien
Citizen-at-large (appt by BOS) -
Citizen-at-large (appt by Karttunen) -

Applicants for Citizen-at-large (appt by BOS)*:

Ginger Andrews
Patricia Lynch
Caroline Ellis
Michael Glowacki
Tim Soverino
Matt Mulcahy
Darcy Creech
Georgia Ann Snell

*Unclear if these individuals have "applied" to Fran Karttunen either for the Citizen-at-Large or one of the other appointments to be made by Fran

67 Center Street
Nantucket, MA 02554
508-332-0494
karttu@comcaast.net



Elizabeth Gibson, Town Manager

I wish to be included as a member of the Our Island Home workgroup as described in Article 4 and approved at the October 17 Special Town Meeting.

I am a family member of a current resident at Our Island Home and an active volunteer there as well as an active member of the OIH Family Council.

My husband, Alfred W. Crosby, is living with late-stage Parkinson's Disease. I hoped to be able to care for him at home to the end of his life, but in July 2015 it became impossible for him to continue to reside safely at home. He required more management of his complicated daily medications, his increasing physical disabilities, and advancing dementia of Parkinson's than I could provide with the assistance of CNAs at home. Our Island Home has quite literally saved our lives, and I am deeply grateful for its existence and the care it provides.

I have now been a daily visitor at Our Island Home for well over a year. When my husband became a resident of OIH, I said to him, "If you can't be at home with me, I will be here with you." Since the beginning of August 2015 I have spent approximately seven hours a day, seven days a week, with few exceptions, keeping my husband company and participating in his care at OIH. I help him with two meals a day, thereby freeing CNAs to help other residents with their meals, and we anchor a table with two other residents, who—like my husband—are veterans, one of the US Coast Guard and the other of the US Navy.

In order to make myself useful to all the residents at OIH, I produce an interactive slide show for half an hour before supper once a week. The topics range from vintage photos of Nantucket places and people, to bird talks and travelogues, to history and current events.

I have also become a member of the board of the Friends of Our Island Home and am currently assisting in fund-raising for the many things that the Friends provide to enhance the daily experience of the residents.


Frances Karttunen

Libby Gibson

From: Alison K Forsgren [alisonkforsgren@gmail.com]
Sent: Friday, October 21, 2016 2:09 PM
To: Libby Gibson
Subject: Our Island Home Workgroup

Town Manager
16 Broad Street
Nantucket, MA 02554
508.228.7255

To Elizabeth Gibson, Town Manager,

I wish to be included as a member of the Our Island Home workgroup as described in Article 4 and approved at the October 17 Special Town Meeting.

Both of my parents, Roderick and Donna Forsgren, spent time at Our Island Home beginning in 2012. My father was a resident until his death 1/2014. My mother was in rehab as a referral from Nantucket Cottage Hospital for nearly two months in 2015.

I was a member of Family Council at OIH while my father was a resident and started, along with another resident's wife, Friends of Our Island Home (FoOIH) in 2013. FoOIH board members are mostly family or friends of residents no longer living at OIH. Our mission is to "enhance the daily lives of the residents" and our efforts as a board will continue on that focus throughout the changes that will take place around the residents.

My interest in joining the workgroup as a Board Member of FoOIH are in addition to my responsibilities to that board. I am waiting to hear what other member is interested in taking part in this workgroup and will have them be in touch with you.

Prior to my father's move to OIH in 2012, as Power of Attorney and Health Care Proxy for both parents, I made applications to three off-island graduated care facilities. They resided for a time in both skilled nursing and assisted living apartments in two of the facilities. My mother lived independently at Academy Hill and we moved together to one of the cottages at Sherburne Commons for the last year of my mother's life.

I have a sizable body of knowledge as both consumer and caregiver and an interest in seeing the correct and best facility for Nantucket.

Sincerely,

Alison K. Forsgren
POBox 39
Nantucket, MA 02554

508.566.4449

From: [Libby Gibson](#)
To: "Frances Karttunen"
Cc: ["alisonkforsgren@gmail.com"](mailto:alisonkforsgren@gmail.com)
Subject: Our Island Home Work Group
Date: Monday, October 24, 2016 5:49:59 PM

Fran, I wanted to give you an update on the work group and also about an item on the 10/26 BOS agenda:

1. The Work Group

- a. As the proponent of the Article and sponsor of the final Motion that was voted on and adopted, I am advised that you should provide me with the names of the two people you will choose from the Our Island Home Family Council; and, the name of your Citizen-at-Large representative (one of these three individuals could be you). We will just need the two representatives from the Family Council to be verified as being active with the Council.
- b. I am advised that Alison Forsgren is the Chair of the Friends of Our Island Home group. By copy of this email, I ask Alison to provide the names of the two people she will choose from the Friends group (one could be you, Alison).
- c. I have requested through the Finance Committee Chair that the Finance Committee meet very soon to designate its representative.
- d. The Board of Selectmen will designate its representative and also its Citizen-at-Large representative at its November 2 meeting. I will be advertising for the Citizen rep in the newspaper this week.
- e. The Our Island Home Administration rep will be Rachel Chretien.
- f. Once all of the names have been provided and members selected, I will promptly schedule an organizational meeting of the group to determine things such as: who will chair the group and run the meetings; who will take the minutes and post the meetings (this group is subject to the provisions of the Open Meeting Law and meetings will need to be posted and minutes taken); when will meetings be scheduled; a timeline for the work group, things like this.
- g. For your information, individuals who have so far expressed interest in being on the work group include: Mike Glowacki, Ginger Andrews, Matt Mulcahy, Tim Soverino and both of you.
- h. Any questions please let me know.

2. 10/26 BOS Agenda

The Board's agenda this week includes an item titled "Review of Operational Model and Associated Costs for Our Island Home New Facility" under the Town Manager's Report section of the agenda. This item is meant to be an update on the financial analysis of the Small House operational model that the Board requested several months ago. This analysis has been/is being conducted by SK Advisors. We will be reviewing with the Board where we are in the process of the analysis. I thought you might be interested in this.

C. Elizabeth Gibson
Town Manager
Town of Nantucket

To: the Board of Selectmen; Libby Gibson, Town Manager

Dear Libby Gibson,

October 24, 2016

I am writing to let you know that I would like to be considered as a possible candidate for the Our Island Home Work Group, when you come to choose those members.

I first experienced Our Island Home as a volunteer, bringing my cocker spaniel for therapeutic pet visits to the residents there after the current facility was built.

I experienced caring for several elderly relatives who remained in their homes, with and without supplemental assistance from outside agency caregivers. My mother resided at Our Island Home for about a year and half before her death, at age 100, last year. It had not been part of my plan or expectation, but she chose to go there of her own accord. It was an adjustment for both of us, but I think she did well there. It was also crucial to my own health to be able to transfer the responsibility of 24-hour care to the team at OIH. Thanks to OIH it was a pleasure to visit my mother every day, and also see and chat with many people I had known as adults in my childhood, as well as peers who were also visiting their relatives.

I have attended several of the informational forums, and I have to say, as of this date, color me still unconvinced by the plans for the new OIH facility. But I have served on two town boards in the past: 7 years on the Conservation Commission with two as Chair, and as Con. Com. representative to the Community Preservation Committee, as well as being a past board member of the Community Foundation for Nantucket. I know the importance of collecting enough information and if appointed to the work group I will do my best to give all information a fair hearing and a detailed evaluation.

Sincerely,



Virginia (Ginger) Andrews

1 Stone Alley

P.O. Box 1182

Nantucket. Ma. 02554

(508) 228-1340 (h) (508) 221-1325 (cell)



From: [Libby Gibson](#)
To: [Erika Mooney](#)
Subject: FW: Our Island Home Work Group
Date: Wednesday, October 26, 2016 8:33:40 AM

C. Elizabeth Gibson
Town Manager
Town of Nantucket
(508) 228-7255

From: Patricia Lynch [mailto:poblynch@gmail.com]
Sent: Tuesday, October 25, 2016 6:30 PM
To: Libby Gibson
Subject: Re: Our Island Home Work Group

Dear Ms. Gibson. Thank you. I'm sorry sorry for the multiple emails. I think that initially the email failed to send and that unbeknownst to me my iPhone resent it (twice) and I manually sent it myself. I recently upgraded my system and I'm not that familiar with all the ins and outs of the new platform. I apologize for copies.

Fran suggested I contact you. I am not sure if the family member positions have been filled, and she wanted me to apply for the at-large position. I will contact her and clarify that. Thank you for being candid about your "remote" preferences, I completely understand. That being said, I am willing to work hard, albeit remotely, if you find that you need some additional input.

Patty

Sent from my iPad

On Oct 25, 2016, at 5:55 PM, Libby Gibson <LGibson@nantucket-ma.gov> wrote:

Thank you. I received your email three times (fyi – probably a snafu). Your personal and professional experience sound very relevant. Are you applying or inquiring about the Citizen-at-Large position on the Work Group? If so, your application can be added to the list of applicants from which the Board of Selectmen will make an appointment. If it is one of the other representatives, then Fran is handling those. Quite honestly, it would be my recommendation to the Board that its representative be present at the meetings and not participate remotely. I know that can work in some circumstances but in this situation I think the members really need to be present.

C. Elizabeth Gibson
Town Manager
Town of Nantucket
(508) 228-7255

From: poblynch@gmail.com [mailto:poblynch@gmail.com]
Sent: Tuesday, October 25, 2016 5:36 PM
To: Frances Karttunen; Libby Gibson
Subject: Re: Our Island Home Work Group

Good afternoon Ms. Gibson and Ms. Karttunen.

My name is Patty Lynch and I live at [5 Sleepy Hollow Rd. in Nantucket](#). I am contacting you about the newly formed OIH work group.

My mother, Lorraine O'Brien, has been a resident at OIH since July 5, 2016. I am familiar with the physical space on East Creek Rd. in as well as the mental, spiritual, and physical challenges facing the resident population at OIH.

I am a retired registered nurse. My most recent job was to work as a consultant for two healthcare insurance agencies. I collected outcome data for my clients. Prior to that I worked at Lahey Clinic in Burlington Mass. for 25 years. Throughout my employment I provided direct patient care initially at the hospital bedside and later in clinical areas. My first job at age 16 was working for a local nursing home facility in Connecticut.

I don't want to mislead anyone in the group and would need to understand what the expectation is in order to fully commit to participating in the workgroup. I had planned to be off island [between November 1 and April 1](#) returning on a fairly regular basis. It would be my intention to work remotely for this group. I would try to attend meetings physically when possible, if given enough notice. Otherwise I could listen in by phone.

I have been a member of committees and served on boards where 90% of my participation has been remote. This has been achieved by calling in for meetings and to attend to any work assignments for the group by phone rather than face-to-face. Actually, this set up, though not ideal, has worked very successfully.

If you think my participation would be appropriate and would be helpful for the OIH group, please allow me to submit my name for consideration.

The best way to reach me is by email at: Poblynch@gmail.com, or by cell phone or text at [508-380-1532](tel:508-380-1532). Please contact me with any questions or concerns.

I look forward to hearing from you and am aware that the [November 1](#) deadline is fast approaching.

Sincerely,
Patty Lynch

From: [Caroline Ellis](#)
To: [Erika Mooney](#)
Subject: Our island home workgroup
Date: Thursday, October 27, 2016 11:15:56 AM

Erika, I'd love to be part of the group if there is space. Thank you.
Caroline

Caroline Ellis
PO Box 368
Siasconset, MA 02564
508 642-7754 cell
508 228-1134

Libby Gibson

From: MG Gmail [mike.glowackiii@gmail.com]
Sent: Monday, October 17, 2016 8:16 PM
To: Libby Gibson
Subject: Island Home

I volunteer.

MG

Libby Gibson

From: Tim and Kate Soverino [acksov@hotmail.com]
Sent: Friday, October 21, 2016 5:10 PM
To: Libby Gibson
Cc: Frances Karttunen
Subject: Fw: Article 5 and OIH

Hi Libby,

I am sending this along for consideration to help on the OIH work group. It appears that with a Nov 1 start date there may not be time for a formal process like you normally have, thus the email.

My Best,
Tim

From: Frances Karttunen <karttu@comcast.net>
Sent: Friday, October 21, 2016 3:47 PM
To: Tim and Kate Soverino
Subject: Re: Article 5 and OIH

Thank you very much, Tim. I so appreciate the prospect of working with you on this important project.

As Rachel Chretien gave me to understand the day after the Special Town Meeting, each one of us with an interest in serving in the workgroup needs to contact Libby Gibson directly. I have already sent my letter of interest, and at least two others have done the same.

You might express your interest to Libby as either an OIH Family Council member or one of the members-at-large.

Apparently it will be up to Libby to determine who will serve in which slots.

I hope you will contact Libby, since you will be a very valuable prospective member of the group. We are lucky you are interested in taking part.

Fran

On Oct 21, 2016, at 11:49 AM, Tim and Kate Soverino <acksov@hotmail.com> wrote:

Hello Frances,

I would be very happy to help you with this project. Please put forward my name in what ever slot of membership on the committee works best for everyone.

Thanks for thinking of me!
Tim

Get [Outlook for Android](#)

On Wed, Oct 19, 2016 at 8:53 AM -0400, "Frances Karttunen" <karttu@comcast.net> wrote:

Dear Tim,

It was gratifying to see how much community support there was for Article 5 at the STM on Monday evening.

Now we have to roll up our sleeves and get to work.

Article 5 requires a work group including 2 members each from the OIH Family Council and the Friends of OIH two citizens-at-large. As I understand the process, Libby Gibson must advertise for willing volunteers for these positions. You would qualify for one of these slots, and I have been told that you hold a vital interest in the charge of the work group.

Please let me know if you would be interested in putting in the time. Article 5 mandates that we meet for the first time by Nov. 1. We would work until April 1. We are thinking that to begin with we should meet once a week, and that meetings should be limited to one hour in length.

And my advice would be not to wait for Libby Gibson to make the first move but to inform her immediately if you have interest in doing this.

Thank you so much,

Fran

From: [Libby Gibson](#)
To: [Erika Mooney](#)
Subject: FW: Island Home Sub-Committee
Date: Friday, October 28, 2016 8:36:42 AM

C. Elizabeth Gibson
Town Manager
Town of Nantucket
(508) 228-7255

From: Matt Mulcahy [mailto:mattykategrace@comcast.net]
Sent: Tuesday, October 18, 2016 3:12 PM
To: Libby Gibson
Subject: Island Home Sub-Committee

Libby,

Great to run into you last night at the Special Town Meeting.
I did offer you my assistance if needed and if you are serious about me serving on the new work group I would be honored to be included.

Matt

Town Manager
16 Broad Street
Nantucket, MA 02554
[508.228.7255](tel:508.228.7255)
Attn: Elizabeth Gibson, Town Manager,



October 28, 2016

Dear Libby,

The purpose of my letter is to request inclusion (as Citizen at Large?) in the Our Island Home workgroup as described in Article 5 and approved at the October 17, 2016 Special Town Meeting.

I am a founding member of Friends of Our Island Home and also the founder of Nantucket Wheelers, a wheelchair biking program with a squad of 30 trained volunteers which takes the Our Island Home residents out for bike rides 5 days/week from Memorial Day through Columbus Day. As both the founder and active participant in this program, I have enjoyed seeing the positive impact that this 'out of the box' program has had on both the mental and physical well-being of the OIH residents.

My goal as a member of the workgroup would be to offer constructive and creative ideas for a new facility that would not only benefit our elderly citizens--but our community as a whole.

Sincerely,

Darcy Creech
16.5 Federal St
Nantucket, MA. 02554
C: 508-685-0404

From: [Libby Gibson](#)
To: [Erika Mooney](#)
Subject: Fwd: OIH
Date: Monday, October 31, 2016 8:25:23 AM

Sent from my iPad

Begin forwarded message:

From: Georgia Ann Snell <snellhotel@gmail.com>
Date: October 30, 2016 at 11:49:35 AM EDT
To: Libby Gibson <lgibson@nantucket-ma.gov>
Subject: OIH

Hi Libby, I would like to be on the work group for Our Island Home. Is there something I need to fill out? Or swear to? Love to see you sometime. I'm sure your free time is very limited! Much love to you, Georgia Ann
Sent from my iPad



Town of Nantucket

Jetties Beach Concession and Retail Shop

Term Sheet

- Lease Term:** Five years beginning January 1, 2017 and expiring December 31, 2021
- Operating Dates:** Occupancy and operations allowed second week of May through Columbus Day Weekend
- Security Deposit:** The Concessionaire shall file with the Town of Nantucket a \$5,000.00 security deposit; refundable at the end of the lease term, without interest to the Concessionaire within sixty (60) days, after determination has been made that the Concessionaire has fulfilled all of the terms of the contract and left the premises in adequate condition according to the Town and after presenting proof that all utility payments as well as landfill and sewer fees have been made and no defaults are left outstanding.
- Utility Payments:** The Concessionaire shall pay all water, power, gas, sewer, landfill, oil and telephone costs incidental to its operation hereunder. This obligation includes but is not limited to payment of water and electric bills, Landfill and Sewer User Fees for both the Concession and the Bathhouse portions of the premises. The Concessionaire is also responsible for turning on and turning off of all utilities and any and all utility deposits required doing so. The Concessionaire shall present proof of payment of all utilities to the Town of Nantucket within thirty days of closing for the season. Should proof of payment not be presented the Concessionaire shall be considered in default and the Town of Nantucket has the right at its discretion to pay any outstanding amounts from the security deposit as stated in Section A3 above.
- Other Fees and Utilities:** The Concessionaire shall also be responsible for all licensing fees as determined by the Town, all utilities, small and large event permitting fees, entertainment or pouring licenses, and all other costs associated with the operation of the Premises including events; including any additional fees brought on by the presence of listed shorebirds and the protection plan implemented by the Town of Nantucket's Endangered Species Program, through the Beach Management Plan. Those items specifically provided herein are excluded.



Town of Nantucket

Concession

Premises:

Concession Building, Bathhouse, Retail Shop, Function Area (180' north towards the water, 100' from eastern edge of Concession Building west towards the dune). The Concession restaurant service area is limited within the Function Area to within 100' from the Concession Building for the purposes of food and alcohol services. Concession patrons are not allowed to take alcoholic beverages beyond the 100' area defined for the purposes of food and alcohol services, which must be approved by the Town annually and clearly marked by the Town's Facility Manager or his/her designee at the beginning of the season. No alcohol can be served outside of the legally defined and approved premises. The remaining Function Area may be used for events.

Bid Deposit:

\$12,000 (10% of the first year base bid required).

Rental Fee:

\$120,000, 5.0% increase annually (Minimum bid \$108,280 with minimum 3.0% increase annually).

Sales Fee:

Minimum requirement 5.0% of gross sales over \$1,000,000 annually.

SandBar, LLC proposal:

2017 - 5.0%

2018 - 5.0%

2019 - 6.0%

2020 - 6.0%

2012 - 6.0%

Security Deposit:

The Concessionaire shall file with the Town of Nantucket a \$5,000.00 security deposit; refundable at the end of the lease term, without interest to the Concessionaire within sixty (60) days, after determination has been made that the Concessionaire has fulfilled all of the terms of the contract and left the premises in adequate condition according to the Town and after presenting proof that all utility payments as well as landfill and sewer fees have been made and no defaults are left outstanding.

Utility Payments:

The Concessionaire shall pay all water, power, gas, sewer, landfill, oil and telephone costs incidental to its operation hereunder. This obligation includes but is not limited to payment of water and electric bills, Landfill and Sewer User Fees for both the Concession and the Bathhouse portions of the premises. The



Town of Nantucket

Concessionaire is also responsible for turning on and turning off of all utilities and any and all utility deposits required doing so. The Concessionaire shall present proof of payment of all utilities to the Town of Nantucket within thirty days of closing for the season. Should proof of payment not be presented the Concessionaire shall be considered in default and the Town of Nantucket has the right at its discretion to pay any outstanding amounts from the security deposit as stated in Section A3 above.

Concession Service: Concessionaire agrees to operate a concession facility of a typical beach “family-friendly” snack bar restaurant and a small retail business in accordance with the applicable rules and regulations and to obtain appropriate licenses before operating the facility and presenting the Town of Nantucket with the same. Retail sales are required in the Retail Shop. The Concessionaire is responsible to offer food service in order to offer breakfast (optional), lunch and dinner service. The concessionaire shall operate the premises so as to enhance the public’s use and enjoyment of the adjacent public beach facility and in the best interest of the Town of Nantucket. The Concessionaire is responsible for compliance with all laws and regulations applicable to the operation of the premises, including but not limited to compliance with applicable ADA regulations. “Family-friendly” includes but is not limited to such elements as a Children’s Menu; no cover charges; picnic tables and casual furniture with no abundance of couches and lounge furniture; no over-crowding of furniture on the patio or beach to allow for a more open and relaxing atmosphere leaving room for the public to set up beach chairs to enjoy the sand; unamplified music indoors only; non-club hours (8:00 am to 10:00 pm); and no more than fifteen (15) permitted events per season (May-October), which includes no more than four (4) private events that close down the Concession to the public. These fifteen permitted events do not include events permitted by the Town for other organizations such as the Nantucket Cottage Hospital’s Boston Pops, the Nantucket Triathlon, the Opera House Cup, the Swim Across America, etc.

**Private Functions/
Special Events:**

No Private Functions or Private Special Events resulting in the closure of the Concession shall occur in July and August. No closing of the Concession and Retail Shop in July and August except for the Nantucket Cottage Hospital Boston Pops Event or extreme weather-related instances. Events will be limited to under 250 people per Event in July and August, with the exception of the Fourth of July Fireworks Event and the Nantucket Cottage Hospital Boston Pops Event. Tented events are not permitted in July and August unless tents do not obstruct the view from the Concession Facility as approved by the Town. Private Functions or



Town of Nantucket

Private Special Events may occur however Concession operations cannot be interrupted. Concessionaire is subject to the published Event Permitting Fees for Special Events (under 250 persons) and Public Assembly Events (over 250 persons) for any Private Function or Special Event on the Premises. In the shoulder months (May, June, September and October) only four (4) Private Functions or Private Special Events that close the Concession operations to the public are allowed in total during these months. The Concessionaire may have additional Events under 250 persons each in the shoulder months as long as the Concession operations are not closed to the public.

Prior to holding any Private Function, Special Event or Public Assembly Event, the Concessionaire shall obtain in writing approval from the Town of Nantucket and the Events Manager. A list of upcoming events, as well as completed Beach Event Forms (Exhibit C) must be submitted to both the Events Manager and the Chief Procurement Officer by May 1st. Any additional events after May 15th will require a Beach Event Form to be completed and submitted to the Town of Nantucket as soon as the event is scheduled. The Town of Nantucket shall have full discretion to deny permission to hold any Private Function, Special Event, or activity.

Should the Town of Nantucket approve such a function all of the following conditions must be met:

- a) If a fire on the beach is planned the Concessionaire must obtain a permit from the Fire Department. A copy of the permit will be give to the Town of Nantucket prior to the day of the function.
- b) Concessionaire will be responsible for compliance with all Massachusetts, County and Town laws regulations and ordinances governing noise.
- c) Private functions at the concession will be held in the premises only as shown on Exhibit F and not on the remainder of the beach or dunes. The Town of Nantucket's policy is to disallow private functions on the remainder of the property.
- d) Section C 2 Private Functions may be overridden by the additional provisions of this lease. Not any other part of the lease is affected by any such changes.
- e) A completed copy of the Beach Event Form (Exhibit C) must be submitted to the Events Manager and the Chief Procurement Officer.
- f) Depending on the status of the State & Federally listed species and after the review of the Town, the Concessionaire may be required to hire monitor(s) through the Town's Endangered Species Program. If the hiring of monitor(s) is deemed necessary a completed Detail Form must be completed and submitted to the Events Manager before the event (Exhibit D)



Town of Nantucket

Public Restrooms, Bathhouse and Shower Facilities:

All areas designated as Public Restrooms, Bathhouse and Shower facilities shall be available as such for the public's use. At a minimum when the concession is not in operation the Concessionaire shall operate the Bathhouse, toilet and shower facilities between the hours of 9:00 am and 5:30 pm seven (7) days per week from the second weekend in May through Columbus Day Weekend each year. Concession operating hours may be different than the Public Restroom, Bathhouse and Shower Facilities hours above, however the Concessionaire shall open the Bathhouse and toilet facilities at all times while the concession is operating. The Town of Nantucket reserves the right to open and staff the toilet facilities only at other hours for special events. Toilet room facilities must remain open even in inclement weather. The Concessionaire shall be responsible for the cleanliness of the Public Restroom facility and area surrounding the Public Restroom facility.

Kitchen Equipment: The Concessionaire shall provide and install all kitchen equipment and food and drink equipment not already provided by the Town of Nantucket. List of current assets is provided in Exhibit G. Any purchase of equipment by Concessionaire from previous Concessionaire would be a private agreement and is not part of the contract for the facilities. Concessionaire is responsible for maintenance; replacement and removal of his/her own equipment. Any equipment affixed permanently to the premises shall immediately become the property of the Town of Nantucket subject only to the Concessionaire's right to use such equipment during the term hereof. The Concessionaire is responsible for preventive maintenance for the equipment provided by the Town of Nantucket. In addition the Concessionaire agrees to perform annual maintenance prior to closing the building each fall. A schedule of the minimum annual maintenance requirements is attached hereto, and incorporated herein, marked Exhibit G. Any such equipment remaining after the expiration of this contract shall, at the option of the Town of Nantucket, either become the property of the Town of Nantucket or be removed and disposed of by the Town of Nantucket at the expense of the Concessionaire. **The Concessionaire shall not use the kitchen as a commercial kitchen for off-premise catering services such as for a mobile food unit. On-premises catering is allowed when the restaurant is closed to the public for approved and permitted Private Event Functions.**

Custodial Services: The Concessionaire shall clean the restrooms as often as required to maintain them in a condition satisfactory to the Town of Nantucket. The Concessionaire shall supply and maintain paper, soap and supplies as needed.



Town of Nantucket

Maintenance:

The Concessionaire shall provide all custodial maintenance inside the buildings and outside the buildings in the Maintenance Area indicated on Exhibit F, policing the beach and parking areas at least twice daily to keep it free of all litter and other trash generated by the patrons of the beach. All rubbish/trash collected by the Concessionaire or generated from the concession's operation will be secured, removed from the beach and disposed of at the Concessionaire's expense including landfill fees. The Concessionaire is responsible for repairing and maintaining any and all windows and door screens and must inform the Town of Nantucket immediately of any and all repairs so made. The Concessionaire will be required to provide a work order for all exterior and structural repair work to be performed by the Town of Nantucket. Once a pair of potentially nesting listed shorebirds has been recognized, all cleaning of the beach's litter must be done by hand. NO beach raking will be permitted until the status of the State and Federally listed shorebirds has been examined by the Town and has been deemed permissible. Removal of the wrack line by hand or machine is prohibited. The Town is responsible for beach raking. All repairs, maintenance construction, power washing, or any other action that may involve excessive noise must be completed prior to April 15th

Signs and Structures:

Before any temporary or permanent signs or structures are erected the Concessionaire shall first obtain such written approvals as may be required under existing Town regulations including but not limited to a Certificate of Appropriateness from the Historic District Commission of the Town. The Concessionaire shall then obtain the written permission of the Town of Nantucket.

State and Federally Protected Species:

The Concessionaire must be aware that Jetties Beach is a known traditional habitat area for State and Federally listed species, such as the Piping Plover. Such listed species are protected under the Endangered Species Act and are monitored and protected by the Town of Nantucket's Endangered Species Program. The Town's Endangered Species Program is based on set State and Federal Guidelines. Failure to follow the rules, regulations and guidelines created by the State and Federal Government and implemented by the Town of Nantucket's Endangered Species Program may result in the potential closure of Jetties Beach. The Concessionaire is required to abide by all rules and regulations set forth regarding the "State and Federally listed species" and therefore must notify the Town of any "Private Function, Special Event or Activity" as soon as they are scheduled and no later than one week in advance of the event. See Exhibit D.



Town of Nantucket

Alcoholic Beverages:

In accordance with Section 54-1C of the Nantucket Code, the Town of Nantucket hereby grants its consent to the Concessionaire to serve alcoholic beverages for possession and consumption on the premises subject to the following condition:

- a) Concessionaire must obtain a liquor license from the Nantucket Board of Selectmen in accordance with all local, state and federal rules and regulations.
- b) The area of the Premises in which alcoholic beverages will be served and consumed shall be limited and clearly delineated to the satisfaction of the Town of Nantucket. Appropriate precautions shall be taken to assure that alcoholic beverages are not consumed outside the premises.
- c) The Concessionaire will be responsible for compliance with all Massachusetts and Nantucket laws, regulations and ordinances governing the serving and consumption of alcoholic beverages on the premises including the consumption of alcoholic beverages by minors.
- d) Alcohol may only be served as indicated on the Concessionaire's liquor license.

If it is the intent of the successful concessionaire to extend the liquor license hours they will be required to obtain Board of Selectmen approval.

- e) The Concessionaire shall hire a police detail for any private function at which alcohol will be served where more than 150 persons are expected to attend. The number of details required for events is at the discretion of the Nantucket Police Department. The cost of such police detail will be paid by the Concessionaire or the sponsor of the function.
- f) The Concessionaire hereby agrees to indemnify and hold harmless the Town and County of Nantucket and all of their officials, members, officers, employees and agents from any and all claims arising out of the sale or consumption of alcoholic beverages on the premises and all other costs (including legal fees) related thereto. The Concessionaire will maintain liability insurance with respect to the serving of alcoholic beverages as required by the laws and regulations of the Commonwealth of Massachusetts and the Town and County of Nantucket. All Such policies of liability insurance shall name the Town and County of Nantucket and all other indemnified parties as additional insured parties under the policy. The Concessionaire shall deliver written proof of such insurance, by a certificate of insurance or otherwise as required by the Town, to the Town's designee on or before March 1 of each year during the term herein.
- g) Such provisions are subject to review, modification or termination by the Town of Nantucket at its sole discretion at any time.
- h) Tents set up on the beach portion of the premises cannot be set up until the day of



Town of Nantucket

the event for which they are being used and must be removed by Noon on the day after the event without written approval by the Town of Nantucket. Problems with this provision should be brought to the attention of the Town of Nantucket at least one week prior to the event if not previously addressed during the permitting process. Before erecting or removing a tent and/or floor on Jetties Beach, the Events Manager and the Chief Procurement Officer must be notified of the size of the tent(s), the times and the date(s). If the Town feels it is necessary, the Concessionaire will hire monitor(s) through the Town's Endangered Species Program to be present during both the erection of the tent and/or floor and the removal. Failure to contact the Town regarding a tent and/or floor may result in the loss of future tent/floor use.

Use for Dwelling Purposes:

The Concessionaire is expressly prohibited from using any part of the premises for dwelling purposes except upon the following terms and conditions:

- a) Only that portion of the second floor of the main building known as the apartment ("Apartment") may be used for dwelling purposes and may be so used only by the Concessionaire or employees of the Concessionaire during the period of Occupancy if approved by the Town. If allowed to be used by the Concessionaire, immediate family only may enter the Apartment two weeks prior to the occupancy period or two weeks prior to opening the concession whichever is later for the sole purpose of preparing the buildings for the summer season. The Concessionaire with immediate family only may remain in the Apartment for up to two weeks after the occupancy period or two weeks after closing the concession whichever is earlier for the sole purpose of closing and winterizing the buildings.
- b) Use of the Apartment is specifically restricted to a single family occupancy with the number of occupants allowed determined by the Nantucket Building Inspector.
- c) Leasing of the Apartment or rooms or space to transients or in any temporary basis is strictly prohibited.
- d) The Apartment may not be sublet.
- e) Occupancy of the Apartment for dwelling purposes may commence only after it has been inspected and approved by the Nantucket Building Inspector. Concessionaire shall be responsible for requesting this inspection by the Nantucket Building Inspector and for complying with all required safety requirements. The Nantucket Building Inspector shall have the right from time to time and upon reasonable notice to the Concessionaire to inspect the premises to see that all terms and conditions of these specifications are being met.
- f) No structural changes or improvements may be made to the Apartment by the Concessionaire without written consent of the Town of Nantucket. Any



Town of Nantucket

improvements made to the Apartment including those necessary to meet building codes are the sole responsibility of the Concessionaire.

Beach Access: The Concessionaire will contact the Town of Nantucket if he/she requires vehicle access to the beach. The Town of Nantucket may deny access to the beach for motorized vehicles at the Town's discretion.

Tennis Courts: The Town of Nantucket reserves the right to sell liquid refreshments at any Town of Nantucket facility located at Jetties Beach Tennis Courts.

Hospital Event: The Nantucket Cottage Hospital will have the use of the beach and the concession for two days during the summer to use for a major fundraiser. The Town of Nantucket will be responsible for providing the Concessionaire with up to three alternate dates for this event six months prior to the date of the event and providing the concessionaire the final date and dollar amount of compensation to be paid to the Concessionaire at least six months prior to the event. The Concessionaire can charge up to but no more than twenty-five thousand dollars (\$25,000) to the Nantucket Cottage Hospital for disruption of operations during this time.

**Fourth of July
Fireworks:** The Town has discretion to schedule this event at Jetties Beach at any time from July 1 through July 6, weather dependent. Concession operations are not required to be closed during this event and are encouraged to stay open to serve the public during this event. The Town of Nantucket will not reimburse the Concessionaire for disruption of services for this event.

**Boardwalk/
Mobility Mat:** The Boardwalk/Mobility Mat will be installed each season by April 15th by the Department of Public Works in concert with the Town of Nantucket. The Boardwalk/Mobility Mat will be placed to the far right, between the leased area and the parking area, and will be flush with the sand. The Boardwalk/Mobility Mat will remain in place for the summer season. The only event for which the Boardwalk/Mobility Mat may be moved is the Hospital Fundraiser. Problems with this provision should be brought to the attention of the Town of Nantucket at least 48 hours prior to the event.

No Pets: The Concessionaire and/or its employees are prohibited from bringing his/her pet(s) to work.



Town of Nantucket

End of Season Inspection:

The Concessionaire shall schedule with the Town of Nantucket a date and time for the end of season inspection. The purpose of the inspection is;

- a) To ascertain any and all repairs necessary prior to opening for the upcoming season.
- b) To make sure the premises are clean and all items are secured prior to closing for the season.

Consent:

The Concessionaire shall not undertake any improvements to the premises without having first received the written consent of the Town of Nantucket. Should the Town of Nantucket consent to such improvements the Concessionaire shall obtain all required permits and present copies of all permits to the Town of Nantucket prior to starting work. Any improvements to the premises shall be completed before April 15th. Should there be an emergency need for improvements after April 15th the Town must be provided with copies of the permits and details of the work. Before any work begins an assessment may be made by the Town of Nantucket based on the current status of the State and Federally listed species and the effect the work may have on their habitat/productivity.

Ownership:

Any improvements made by the Concessionaire to the premises during the term of the contract including any structure, fixture or equipment affixed permanently to the premises shall become the property of the Town of Nantucket except as agreed upon in writing prior to installation.

Insurance:

The Concessionaire will maintain insurance as listed below and will deliver certificates to the Town of Nantucket, on or before March 1 of each year during the term, stating this insurance is in force, in any calendar year for the duration of this Agreement before he enters the premises:

- 1) **Worker's Compensation:** Worker's Compensation insurance in accordance with Massachusetts General Laws Chapter 152, as amended.
- 2) **Liability:** Comprehensive General Liability insurance including products liability for a combined single amount of \$2,000,000. This policy must have as one of its terms a provision that the Town and County of Nantucket and its Town of Nantucket are additional insured parties. A copy of this policy showing the Town as an additional insured is to be provided to the Town of Nantucket annually on or before March 1. Such policy must also contain a provision that the Town of



Town of Nantucket

Nantucket will be provided with ten (10) days written notice by the insurer of any intent to cancel or a determination that such insurance will not be renewed.

Concession, Restrooms and Bathhouse Facilities:

The Restroom, Shower and Bathhouse Facilities shall be operated between 9:00 am and 5:30 pm seven (7) days per week from the second weekend in May through the Monday of Columbus Day Weekend. Concessionaire must ensure the cleanliness of the Premise including the Bathhouse and Concession Bathrooms in a condition satisfactory to the Town.

At a minimum, the Concessionaire shall operate the Concession between the hours of 10:00 am and 5:00 pm seven (7) days per week from the third week in June through Labor Day Weekend.

Additional Concession operating hours in May, June, September and October are preferred but not required. Concession operating hours in May and June and after Labor Day through Columbus Day in conjunction with operations of the restaurant and bar are encouraged.

The Concessionaire may offer breakfast service which will require expanding the hours of Concession and Restroom and Bathhouse operations. The Town of Nantucket agrees to support expansion of the hours of operation necessary to provide breakfast and/or dinner service at the discretion of the Concessionaire. The Concessionaire may extend or reduce the hours of operation subject to the written approval of the Town of Nantucket.

In the event of the beach being unoccupied and closed due to inclement weather the Concessionaire may close after notifying the Town of Nantucket (Event Manager and/or Chief Procurement Officer). For all days the restaurant is closed to the public for a private event, the concessionaire shall be expected to remain open an extra day at the end of the season (Labor Day) in addition to the normal lease period.

Indemnification: The Concessionaire agrees at all times during the term of this contract to indemnify, hold and save harmless, the Town of Nantucket and the Town of Nantucket and its officials, employees and agents from and against any and all action or causes of actions, claims, demands, liabilities, losses, damages or expense of whatsoever kind and nature including all legal costs arising out of or in connection with the operation and rental by Concessionaire of the premises or its performance or failure to perform or any provision of this contract.



Town of Nantucket

Waiver of Rights of Recovery:

The Concessionaire also agrees to waive all rights of recovery it may have against the Town of Nantucket and the Town and County of Nantucket for any loss to property or person for which the Concessionaire is insured.

The Town of Nantucket agrees to the following:

Repairs:

To make exterior and structural repairs to the premises subject to funding by Town Meeting. This would include Boardwalk/Mobility Mat repair, parking lot maintenance, bike rack maintenance and safety inspections (with 24 hour notice to the Concessionaire). The Town of Nantucket is also responsible for sewer and water lines, repair of plumbing and wiring faults due to normal use, recreational equipment, as well as providing trash barrels during occupancy period.

Special Events:

To inform the Concessionaire of any and all special events taking place on the premises.

Improvements:

Any improvements or replacement of equipment made to the premises at the Town of Nantucket's expense will become the property of the Town of Nantucket.

Waiver of Liability

1. **Town of Nantucket's Obligation:** Except as a result of its failure to perform the obligations specifically provided herein within a reasonable period after receipt of written notice thereof, the Town of Nantucket shall not be liable to the Concessionaire for any injury or damage to the Premises or to any property of the Concessionaire or to any property of any third person, firm, association or corporation on or about the Premises.
2. **Beach Use:** Operation of the Premises by the Concessionaire is independent of the operation of the beach. The Town of Nantucket of Town may from time to time close the beach, acting in the public's interest or in the interest of the State and Federal regulations and guidelines set in place for the protection of listed species. The Town of Nantucket shall not be financially or otherwise liable to the Concessionaire or to the Concessionaire or its agents for any such closure, and such closure shall not change the Concessionaire's obligations as detailed elsewhere in this lease.



Town of Nantucket

Events of Default: The occurrence of any of the following shall constitute an Event of Default by the Concessionaire hereunder:

Failure to Make Payment: The Concessionaire shall default in the payment of any installment of rent, utility, fee, or other sum herein specified on or before the date such payment is due; or

Failure to Operate in the Public Interest or to Fulfill Other Non-Monetary

Terms: The Town of Nantucket determines that the Concessionaire has failed to operate the Premises in the best interest of the Town and/or has failed to operate in accordance to the guidelines set for the management/protection of the State and Federally listed species, or the Concessionaire shall default in the observance or performance of the Concessionaire's non-financial covenants, agreements or obligations hereunder, and such default shall not be corrected within twenty (20) days after written notice thereof; or

Bankruptcy: The Concessionaire shall be declared bankrupt or insolvent according to the law, or, if any assignment be made of the Concessionaire's property for the benefit of creditors.

Termination: Upon the occurrence of any Event of Default hereunder, the Town of Nantucket shall have the right thereafter, in its discretion, to re-enter and take complete possession of the Premises, to declare the term of this Agreement ended, and to remove the Concessionaire's effects, without prejudice to any remedies which might otherwise be used for arrears of rent or other default.

Remedies: The Concessionaire shall indemnify the Town of Nantucket against all loss of rent and other payments which the Town of Nantucket may incur by reason of such termination during the residue of the term. If the Concessionaire shall default (after reasonable notice thereof in the case of non-monetary default) in the observance or performance of any conditions or covenants on Concessionaire's part to be observed or performed under or by virtue of any of the provisions in any article of this lease, the Town of Nantucket, without being under any obligation to do so and



Town of Nantucket

without thereby waiving such default, may remedy such default for the account and at the expense of the Concessionaire. If the Town of Nantucket makes any expenditures or incurs any obligations for the payment of money in connection therewith, including but not limited to reasonable attorney's fees in instituting, prosecuting or defending any action or proceeding, such sums paid or obligations incurred, with interest at the rate of the Prime Rate plus two percent (2%) per annum and costs, shall be paid to the Town of Nantucket by the Concessionaire as additional rent. "Prime Rate" shall be the interest rate published from time to time in the Wall Street Journal as the prime rate charged by the US money center commercial banks.

Late Charges:

A late charge of three percent (3%) of any amount due and unpaid fifteen (15) days after due date shall be added to the amount due from Concessionaire and a finance charge of one point five percent (1½%) per month will be added to all amounts remaining unpaid thirty (30) days after the date the amount was originally due, such charge constituting a charge equal to eighteen percent (18%) per annum.

Compliance with M.G.L. Ch. 7:

The Concessionaire covenants and agrees that it will comply with the requirements of M.G.L. Ch. 7, § 40J, including but not limited to, the filing with the Massachusetts Executive Office for Administration and Finance, Division of Capital Asset Management of a disclosure statement in connection with the disposition of an interest in real property by the Town of Nantucket. A copy of the Disclosure Statement is attached hereto.

**Independent
Concessionaire
Relationship:**

There is no relationship of joint venture, partnership, employment or agency between the Town of Nantucket, on the one hand, and the Concessionaire on the other, and neither party shall have nor exercise any control or direction over the method by which the other performs its work or functions, aside from such control or direction as provided in this Agreement, which the parties view as consistent with their independent Concessionaire relationship.

**Binding Obligations,
Related Obligors:**

It is further intended by the Concessionaire and its principals as a condition to this Agreement, that any corporations or other entities which control or are under direct or indirect common control of or with the Concessionaire or which may otherwise be reasonably considered to be a part of its operating business, shall be jointly and severally liable with the Concessionaire for its liabilities as a party to the Town of



Town of Nantucket

Nantucket hereunder.

Successors and Assigns;

No Right to Assign: Concessionaire shall have no right to assign this Agreement or the rights granted hereby with respect to the Premises, or otherwise delegate any of its duties hereunder without the prior written consent of the Town of Nantucket, which may be withheld at the sole discretion of the Town of Nantucket. Any such attempted disposition without the consent of the Town of Nantucket in writing shall be null and void and of no force and effect. The terms, covenants and agreements herein contained shall be binding upon and shall insure to the benefit of the permitted successors and assigns of the respective parties hereto.

Decisions by the

Town of Nantucket: Except as otherwise expressly provided in this Agreement, any decision or action taken by the Town of Nantucket relating to this Agreement or its operation or its termination shall be made by a majority vote of the Board of Selectmen. Responsibilities to monitor obligations shall be undertaken by the Procurement Office.

Notices:

All notices required or permitted to be given to Town of Nantucket or Concessionaire shall be in writing and shall be given personally, or sent by certified mail return receipt requested, addressed to such party at its latest address of record. Notices to and payments to the Town of Nantucket shall be addressed to the Town of Nantucket at its offices, Two Bathing Beach Road, Nantucket, MA 02554 and notices to the Concessionaire addressed to it at its principal business address, which Concessionaire represents as appearing on the first page of this Agreement, or to such other addresses as the parties may designate to each other by such notice from time to time.

Governing Law:

This Agreement is governed by the laws of the Commonwealth of Massachusetts. In any controversy, litigation or action arising hereunder, each party, including successors and assigns, irrevocable consents to the jurisdiction of the courts of Massachusetts, agrees that venue shall be proper only there; and waives personal service of any summons, complaint or other process and agrees that service thereof may be made in the manner of other notice given hereunder.

Entire Agreement; Amendment

Interpretation: This Agreement and the specifications advertised by the Town of Nantucket



Town of Nantucket

constitute the entire agreement between the parties superseding all prior or contemporaneous oral or written understandings. No amendment or other modification of the terms of the Agreement shall be binding unless in writing, and duly executed by the parties hereto. No waiver of default by either party of any of the terms, covenants, and conditions of this Agreement shall be deemed continuing or extending beyond the terms specifically waived in writing. If any provision of this Agreement shall be held unlawful, invalid, or unenforceable, the remainder of the Agreement shall not be affected thereby. Paragraph headings contained herein are for reference only and are not intended to define or limit the scope of any provisions of this Agreement.

Keys: Provide keys to the Town for all locked areas within the Premises.

Non Emergency Repairs:

Concessionaire shall request prior written approval from the Town for any non emergency repairs to be made to the Premises at Concessionaire's expense. If the work is scheduled between April 15th and Labor Day the Town must also sign off on any non emergency repairs. Pending the status of the State and Federally listed species and the description of the non emergency repairs, the Concessionaire may be required to hire monitor(s) through the Endangered Species Program to be present during the approved repairs.

Emergency Repairs: Any emergency repairs Concessionaire will confirm in writing; responsibility for payment of such repairs will be determined in accordance with the terms herein. If the work is scheduled between April 15th and Labor Day the Town must also sign off on any emergency repairs. Pending the status of the State and Federally listed species and the description of the non emergency repairs, the Concessionaire may be required to hire monitor(s) through the Endangered Species Program to be present during the repairs.

Accidents: Concessionaire shall report any emergencies, accidents or incidents that occur within the Premises to the Town in a timely manner. Exhibit E

Parties shall in good faith negotiate the terms and conditions of the Lease in accordance with the terms contained in this term sheet as well as all customary and usual lease provisions.



Town of Nantucket

SANDBAR, LLC

NANTUCKET BOARD OF SELECTMEN

Printed Name and Title

Printed Name and Title