PART A - EXHIBIT 1, Statement of Work

Customer:	Project Address	Project Number (PRJ#)	Utility
Ira Ockene **(508) 612-1185** **ira.ockene@umassmed.edu**	**24 Fairbanks Street** **Harvard, MA 01451**		**National Grid** **Account: 2651665022** **Meter: 98177461**

Major System Components

Panel Description: 20 LG_Neon2-380_Black/White 7,600 Watts
Panel Model Number: LG380N1C-A6

Item	Count	Inverter	Serial Numbers
Inverter 1:	1	SMA SB6.0-1SP-US-41 (240V)	
Inverter 2:	0	0	
Inverter 3:	0	0	
Inverter 4:	0	0	
Battery kWh:	0		
Monitoring:	SMA		**Via WiFi / DOP / Hardline**

Inspector Information

Rough Required: No

Contact Info

Hours of Operation:
Office is open Monday - Thursday 8:00am to 4:30pm
Inspections will be conducted on Mondays, Wednesdays, and Thursdays.

Phone:
(978) 456-4100 ext. 325

Fax:
(978) 456-4107

Scope of Work:

System design
Licensed Prof. Engineer roof load evaluation and stamp
Building and electrical permitting / inspections
Utility authority to interconnect
Installation of racking, wiring, inverters, modules, data communication
System test

Sales Notes:

Garage service is 60 amps. Conduit to garage is 2" OD. I could not find the house end of the conduit. Customer has generator hookup to house with manual lock-out. Thus solar will likely have to be done as a supply side connection.

Additional System Components:

Included	Description
	Length of Trenching
	Energy Storage System
	Structral Reinforcement
	Vent Pipes to Move
	Service Upgrade
	Snow Guards
	Car Charger

COMMONWEALTH OF MASSACHUSETTS
WELLS L. HOLMES
STRUCTURAL
No. 54240
REGISTERED
PROFESSIONAL ENGINEER

Wells Holmes
Digitally signed by Wells Holmes
Date: 2021.05.24 14:23:56 -06'00'

05/24/2021

VECTOR PROJECT #: U1867.0279.211

Construction Notes:

VECTOR ENGINEERS
651 W. GALENA PARK BLVD. STE. 101
DRAPER, UTAH 84020
PHONE (801) 990-1775
WWW.VECTORSE.COM

Version	By	Date	Nature of Change	Contractor	Sheet #	Approved By:
1	Mark	5/10/21	Initial Version	New England Clean Energy 43 Broad St, Suite A408 Hudson, MA 01749 978-567-6527	PV1	{t:i;r:y;o:"Owner 1";w:100;h:15;}
2			Agreement Version			
3			Engineering Version			
4			Permit Set			
5			As-Built			

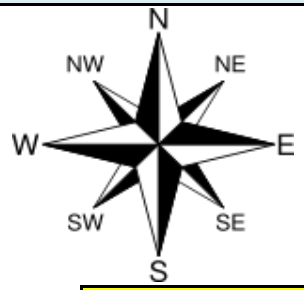
Vector Structural Engineering has reviewed the existing structure with loading from the solar array and lag screw connections to the existing framing. The design of the racking system, connections, and all other structure is by others. Mechanical, architectural, and all other nonstructural aspects of the design are by others. Electrical is by others, unless stamped by Dean Levorsen.

PART A - EXHIBIT 1, Statement of Work

Site Plan

Array
60 amp circuit to garage
2" Conduit between garage and home

Utility Meter
Point of connection
PV Meter
AC Disconnect
Inverter



Internet Router Location
Ask Sales Person

	Array Identifier	Roof Config	Attachment Type	Panel Count	Gutter Height	Rafter Spacing	Roof Angle	Estimated # of Attachments
1	Barn Upper	Shingles on typical roof	SnapNRack L-foot/flashing	10	12	16	25	28
2	Barn Lower	`	#N/A	10	12	16	49	28
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0

# Attachments	56	# 14-ft Rail				Contractor	Sheet Number	Approved By:
Panel Dimensions (inches)	Length:	68.5 in.	Width:	41.02 in.		New England Clean Energy 43 Broad St, Suite A408 Hudson, MA 01749 978-567-6527	PV2	{t:i;r:y;o:"Owner 1";w:100;h:15;}

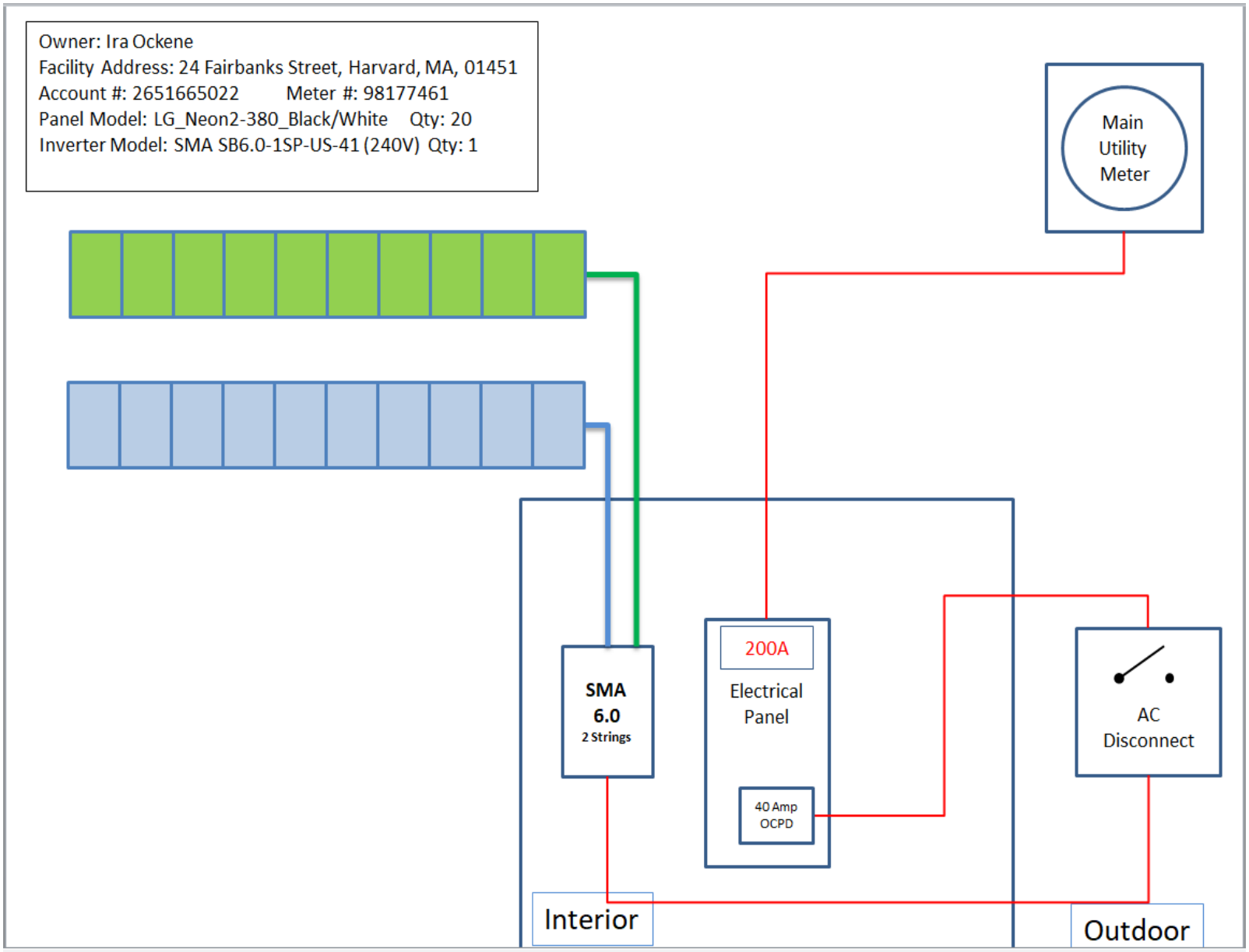
SALES DESCRIPTION	EVENT	LEVEL	HAND	QUANTITY
LG, Neon-2, Res, DC, Mono, 380w, 60c, Black/White		Custom	0	20
SMA, Inverter, 1 Phase, 6.000w		Custom	2	1
SMA, Wire Accessories, Cable Clip, Sunrunner-2		Custom		20
Disconnect, 60A, 250V, 2-Pole, Non-Fused, Outdoor		Custom		1
Soladeck, Box, 5 Position, Black		Custom		2
Breaker, Classified, 40-2		Custom		1
SnapNRack, Ultra Rail, 168", Black		Custom	190	10
SnapNRack, Ultra Rail, Splice Bar, Black		Custom		8
SnapNRack, Ultra Rail, Mid Clamp, Universal, Black		Custom		40
SnapNRack, Ultra Rail, End Clamp, Universal, Silver		Custom		8
SnapNRack, Ultra Rail, Speedseal, Foot, Black		Custom		50
SnapNRack, Ultra Rail, Speedseal, Washer/Lag		Custom		50
SnapNRack, Ultra Rail, Ground Lug, 6-12 AWG		Custom		4

Site Photos		
Front of Building	**Utility Meter**	**Electrical Panel**

Solar Roof(s)

	Contractor	Sheet #
Town Note:	New England Clean Energy 43 Broad St, Suite A408 Hudson, MA 01749 978-567-6527	PV 4

One-Line Electrical Diagram, Single-Phase PV System



		Contractor	Sheet #
Utility Note:		New England Clean Energy 43 Broad St, Suite A408 Hudson, MA 01749 978-567-6527	PV 5

Structural Data

Array Section 1			
Identifier:	Barn Upper	**Roof Description:**	Shingles on typical roof
Angle:	25		
Azimuth:	150	**Rafter Dimensions:**	Actual 2x4
Gutter ht. (ft):	12	**Rafter Spacing (in.):**	16
Panel Count:	10	**Rafter Span (in.):**	81
Assume one layer of shinges unless otherwise indicated			
Rail to be installed perpendicular to rafters			

Roof & Rafter pictures with tape measure or building plans

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Array Section 2			
Identifier:	Barn Lower	**Roof Description:**	Shingles on typical roof
Angle:	49		
Azimuth:	150	**Rafter Dimensions:**	Actual 2x6
Gutter ht. (ft):	12	**Rafter Spacing (in.):**	16
Panel Count:	10	**Rafter Span (in.):**	62
Assume one layer of shinges unless otherwise indicated			
Rail to be installed perpendicular to rafters			

Roof & Rafter pictures with tape measure or building plans

Contractor	Sheet #
New England Clean Energy 43 Broad St, Suite A408 Hudson, MA 01749 978-567-6527	PV 6

Site CHECKLIST

Roof Photos

1. Racking before panels
2. Grounding on the roof (Close up and back up)
3. Inside roof boxes
4. Roof attachment close up (L foot/ S-5, etc…..)
5. Panel nameplate
6. Optimizer/ Micro-inverter/ shutdown unit
7. Conduit on roof?
8. Array!!!
9. Wiring under array after panels are ON

Balance Photos (Make sure all labels are on before photos)

1. Utility meter (Close up)
2. AC disconnect (Close up/ Inside and outside)
3. PV meter (Close up/ Inside and outside)
4. Utility meter /PV meter/ Disconnect all in one photo
5. Pipe run/ labeling (Take multiple)
6. Ground rods
7. Inverter (Close up/ Inside and outside)
8. Inverter serial #
9. PV breaker enclosures (Close up/ Inside and outside)
10. Tap/ Back fed breaker
11. Data connection (DOP/ Hardline)
12. Commissioning screenshot
13. Water meter bonded on both sides
14. SOW As built
15. Permit location
16. Back up of all balance equipment
17. Main panel w/ signage Close up and back up