

**SUPPLEMENTAL PREFILED WRITTEN TESTIMONY OF**

**JOEL LINDSAY**

**AMERESCO, INC.**

**10/24/17**

**A. INTRODUCTION**

**Q. Please state your name, title, and business address.**

A. Joel Lindsay  
Director – Solar PV Project Development  
Ameresco, Inc.  
111 Speen Street  
Framingham, MA 01701

**Q. Regarding the responses to Council’s interrogatories to the Candlewood Solar Project, numbers 1-112, did you jointly prepare those responses?**

A. Yes.

**Q. Do you have any corrections, modifications, or additions to those interrogatory responses that you wish to bring to the Council’s attention?**

A. Yes.

**Q. And do you adopt the Candlewood Solar Project’s responses to those interrogatories numbered 1-112 as your sworn testimony in this proceeding?**

A. Yes, with revisions noted below

**Q. What is the purpose of your testimony?**

A. The purpose of my testimony is to provide an update on some changes to the project design and scope, as well as some additional elements that have been added to the Project. I will cover the following topics:

1. Candlewood Solar Project Description (i.e., Solar Array and Interconnection) - Revisions
2. Land Conservation
3. Outstanding Items
4. Concluding Remarks

**B. PROJECT SPECIFIC TESTIMONY**

**1. CANDLEWOOD SOLAR PROJECT DESCRIPTION**

**Q. Please describe changes that have been made to the array in response to environmental concerns.**

A. The solar array (Facility) has been reduced in size to allow the project and associated area of disturbance to avoid undisturbed slimy salamander habitat and to increase the size of undisturbed buffer around the cryptic vernal pools which were initially identified during the site walk with Siting Council representatives on 9/26, and subsequently mapped by Oxbow Associates. The full reports describing the vernal pools and optimal habitat areas for slimy salamander were prepared by Oxbow and are included with testimony provided by Tricia Foster of Amec and with interrogatory responses. As documented in the Petition and previous testimony, the original size of the array was 26.5 MW DC using solar panels at a 15-degree tilt angle. The revised array is approximately 24 MW DC at a 12-degree tilt angle, and will consist of approximately 60000 solar panels. A 24

MW DC array is the minimum size that can be coupled with 20 MW AC of inverter capacity, which is the minimum required AC capacity under Candlewood Solar's PPA with the participating Tri-State RFP Utilities. As the project was bid into the Tri-State RFP competitively, 24 MW DC is also a lower limit of Facility size below which project economics become highly unfavorable, and make the project unfinanceable. The reduction from a 15-degree to a 12-degree tilt was made to allow reduction in the overall Facility area while maintaining a minimum of 24 MW DC. Exhibit 1 is a revised Overall Site Plan, and Exhibit 2 is a revised Detailed Site Plan. It is noted that the open field adjacent to Candlewood Mountain Road on the parcel was also considered as a possible area to locate a portion of the Facility, but solar panels in this field would have much more visual impact for neighboring residences than the current location of the Facility.

The output of the Facility will be reduced due to the reduction in kW DC size. In our original petition, the annual output was projected at 34,000,000 kWh. The revised Facility output on an annual basis is projected at 31,000,000 kWh.

Reductions in the area of disturbance and tree clearing for the Facility are detailed in separate testimony by Tricia Foster of Amec.

The location of the interconnection route immediately east of the Facility has also been altered slightly to better take advantage of an existing old haul road cut, thereby reducing environmental impacts in this area. The changed interconnection route is depicted in Exhibits 1 and 2.

As described in the Petition and previous testimony and interrogatory responses, staging and laydown areas will be established within the overall area of disturbance for the Facility, and removed as the Facility is constructed. As noted on the site plans, the project will also potentially use the open field adjacent to Candlewood Mountain Road on the property adjacent to Candlewood Mountain Road as a temporary laydown, staging and vehicle parking area during construction. Use of this area will not require grading and any impacted areas will be re-seeded immediately after construction.

**2. LAND CONSERVATION**

**Q. Are there other actions being taken to enhance the environmental performance of the project?**

A. Yes.

**Q. Please explain.**

A. The developer of the parcel hosting the Project, New Milford Clean Power, LLC, will deed approximately 100 acres (located on the Project parcel as well as on adjacent parcels also controlled by the developer) to a local land conservation trust as permanently conserved land. The area to be set aside is shown in Exhibit 3, and encompasses the area of the 3 vernal pools and associated prime slimy salamander habitat immediately to the north and east of the area to be used for the Project. The area to be placed into conservation will include the location at the summit of Candlewood Mountain which is also the terminus of the "Blue Trail". The completion of the transaction to deed the subject conservation parcel to a

local trust will be accomplished once the project is fully entitled and permitted, and moves into construction.

**2. OUTSTANDING ITEMS**

**Q. Are there any outstanding items that the Project will need to submit in this proceeding?**

A. Yes.

**Q. Please explain.**

A. The following items are in process and will require follow up submissions after October 24, 2017:

- Final Permit Set of Civil Design Plans (to be submitted in conjunction with DEEP General Permit application)
- NDDDB letter with proposed actions for environmental and threatened species protection.

**C. CONCLUSION**

**3. CONCLUDING REMARKS**

**Q. Does this conclude your prefiled testimony?**

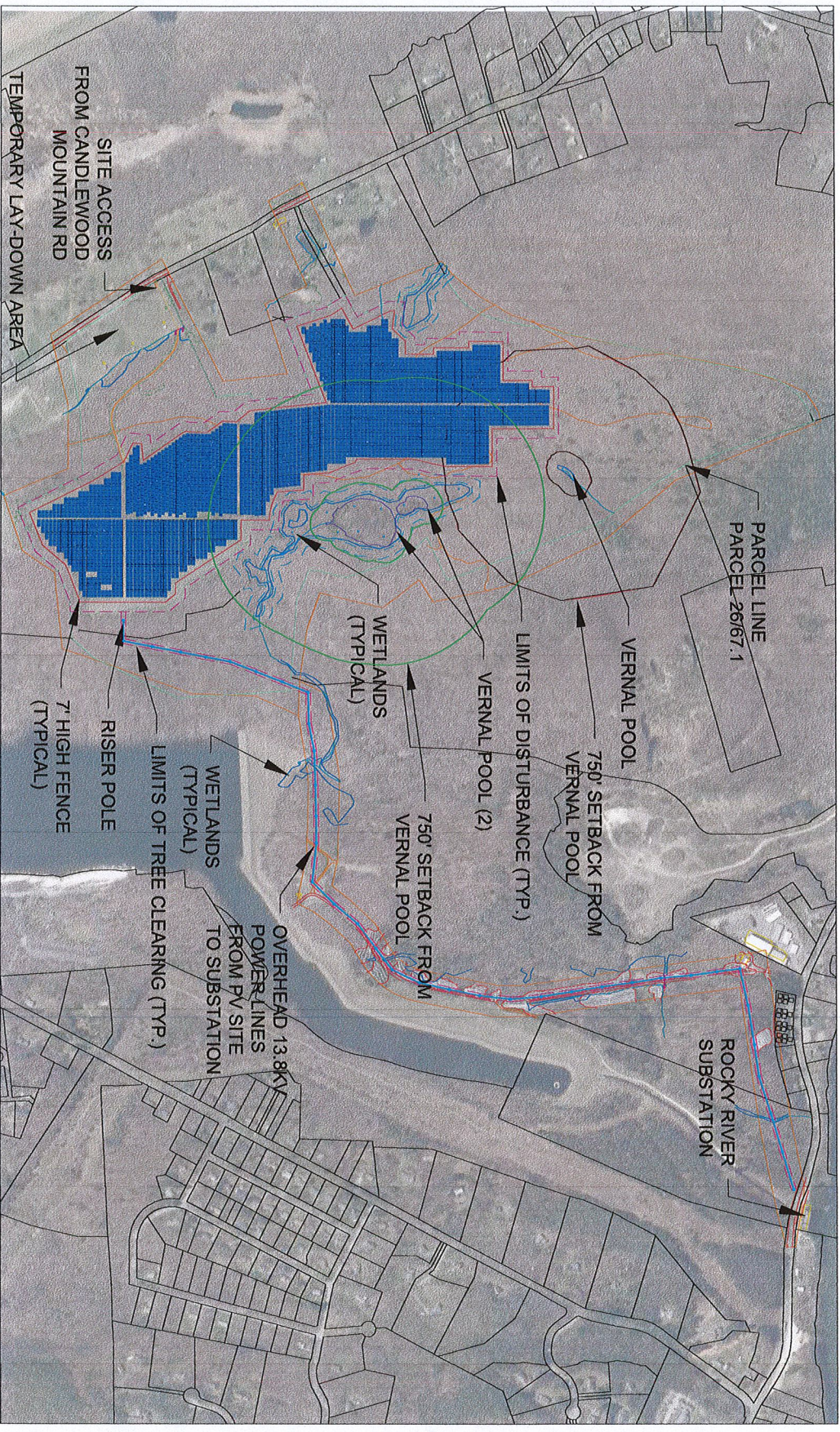
A. Yes.



ARRAY		MOUNT				INVERTER				TRANSFORMER				
LOCATION	# OF MODULES	MODULE TYPE	kWP	AZMUTH	TILT	TYPE	TYPE	SIZE (kW)	QTY	EFFICIENCY	kW AC	TYPE	QTY	RATING
ARRAY 1	60,000	LG400N2V-AS	24,000.00	180	12	GROUND-MOUNT	EATON POWERXPERT	2500	8	98.0%	20,000	PAD MOUNT	8	(9) 2500KVA 570V/13.8KV

**NOT FOR CONSTRUCTION**

- NOTES:**
- SHADING PATTERN IS CALCULATED BASED ON LINE LIST FROM 7:30AM TO 4:30PM, FEBRUARY 21ST FROM PAD TO PAD. LIMITS ARE LONGITUDE.
  - GROUND SNOW LOAD = 50 PSF. ASCE 7-10 BASIC WIND SPEED = 105 MPH (RISK CATEGORY II, EXPOSURE TYPE C).



**NEW MILFORD CANDLEWOOD SOLAR - OVERALL SITE PLAN**

SCALE: 1"=300' WHEN PRINTED 36" x 24"



**E-100**

**AMERESCO**  
 111 Speen Street, Suite 410  
 Framingham, Massachusetts 01701  
 (508) 661-2200

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**NEW MILFORD SOLAR PV**  
 197 CANDLEWOOD MOUNTAIN RD  
 NEW MILFORD, CT

**GROUND MOUNT PV ARRAY**  
 24,000 kWp DC STC PV ARRAY INSTALLATION  
 PHOTOVOLTAIC ARRAY LAYOUT

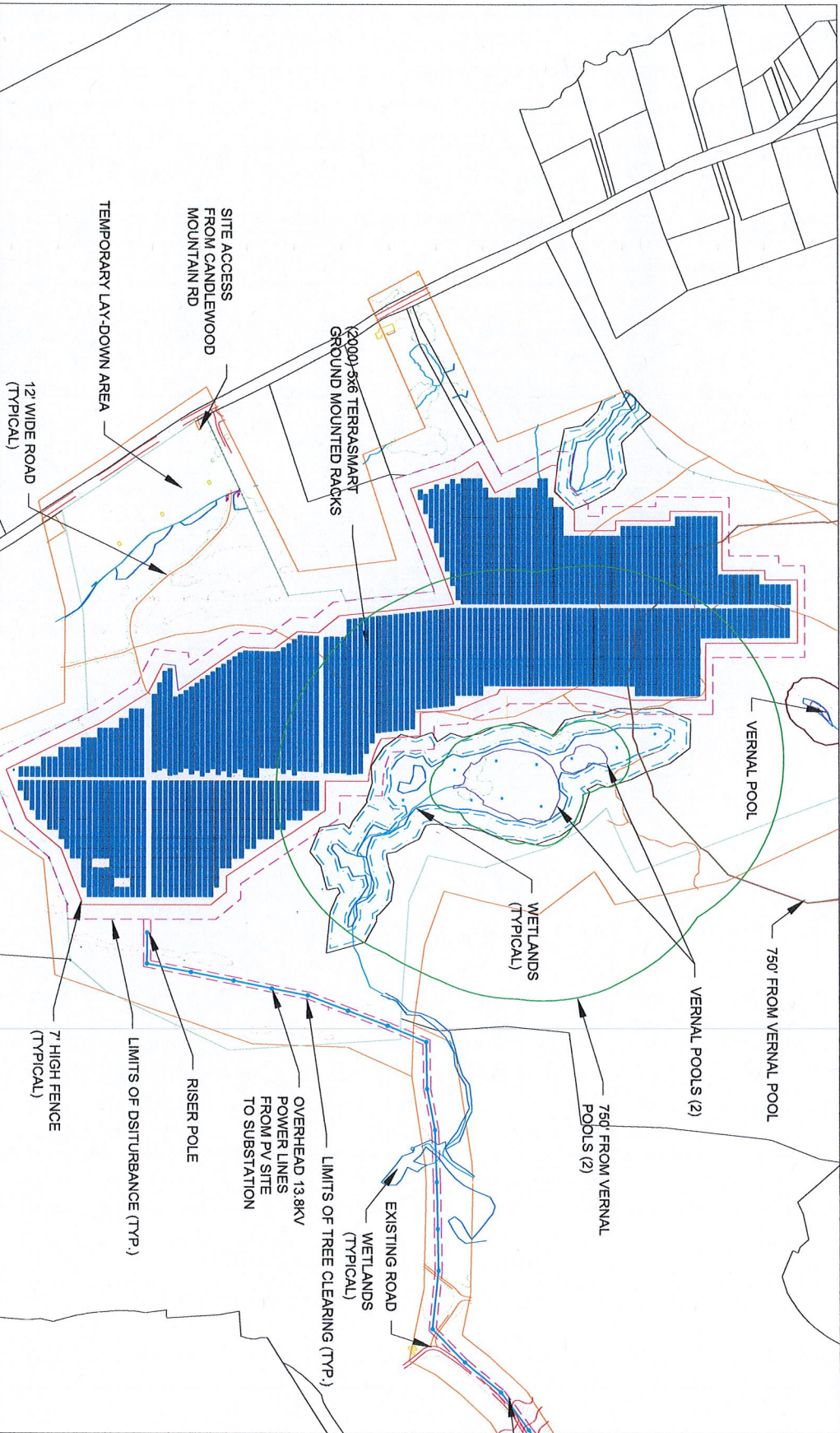
SCALE: 1" = 300' WHEN PRINTED 36" x 24"  
 DRAWN BY: PD  
 CHECKED BY:  
 DATE: 10/20/2017  
 REVISIONS:



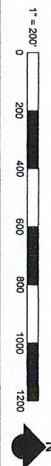
ARRAY				POWER TABLE				INVERTER				TRANSFORMER			
LOCATION	# OF MODULES	MODULE TYPE	kWp	AZIMUTH	TILT	TYPE	TYPE	SIZE (kW)	QTY	EFFICIENCY	kW/AC	TYPE	QTY	RATING	
ARRAY 1	60,000	LG400N2V-45	24,000.00	180	12	GROUND-MOUNT	EATON POWERXPERT	2500	8	98.0%	20,000	PAD MOUNT	8	(8) 2500KVA 570V/13.8KV	

**NOT FOR CONSTRUCTION**

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  2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.



NEW MILFORD CANDLEWOOD SOLAR - DETAILED SITE PLAN - SOLAR ARRAY  
SCALE: 1"=200' WHEN PRINTED 36" x 24"



E-101

**AMERESCO**  
111 Speen Street, Suite 410  
Frammingham, Massachusetts 01701  
(508) 691-2200

NEW MILFORD SOLAR PV  
197 CANDLEWOOD MOUNTAIN RD  
NEW MILFORD, CT  
  
GROUND MOUNT PV ARRAY  
24,000 kWp DC STC PV ARRAY INSTALLATION  
  
PHOTOVOLTAIC ARRAY LAYOUT

SCALE: 1" = 200' WHEN PRINTED 36" x 24"  
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