



**Case No.: 11-5829-EL-REN**

**A. Name of Renewable Generating Facility:** Mach, Richard Residence

*The name specified will appear on the facility's certificate of eligibility issued by the Public Utilities Commission of Ohio.*

**Facility Location**

Street Address: 49 Potts Ave

City: Norristown State: PA County: Montgomery Zip Code: 19403

**Facility Latitude and Longitude**

Latitude: 40.140945 Longitude: -75.382161

*There are internet mapping tools available to determine the latitude and longitude, if you do not have this information.*

*If applicable, U.S. Department of Energy, Energy Information Administration Form EIA-860 Plant Name and Plant Code.*

EIA-860 Plant Name:

EIA Plant Code:

**B. Legal Name of the Facility Owner**

*Please note that the facility owner name listed will be the name that appears on the certificate. The address provided in this section is where the certificate will be sent.*

*If the facility has multiple owners, please provide the following information for each on additional sheets.*

---

**Legal Name of the Facility Owner:** Mach, Richard Residence

Legal Name of Facility Owner Representative (First Name, MI, Last Name): Richard Mach

Title: Homeowner

Organization:

Street Address: 49 Potts Ave

City: Norristown

State: PA

Zip Code: 19403

Phone: 610-539-0814

Fax:

Email Address: rmach@netzero.net

Web Site Address:

---

**C. List the name, address, telephone number and web site address under which the Applicant will do business in Ohio.**

Legal Name of Facility Owner Representative (First Name, MI, Last Name): Mach, Richard  
Residence  
Title: Homeowner  
Organization:  
Street Address: 49 Potts Ave  
City: Norristown State: PA Zip Code: 19403  
Phone: 610-539-0814 Fax:  
Email Address: rmach@netzero.net  
Web Site Address:

**D. Name of Generation Facility Operating Company:**

Name of Generation Facility Operating Company: Mach, Richard Residence  
Legal Name of Contact Person (First Name, MI, Last Name): Mach, Richard Residence  
Title: Homeowner  
Organization:  
Street Address: 49 Potts Ave  
City: Norristown State: PA Zip Code: 19403  
Phone: 610-539-0814 Fax: Email Address: rmach@netzero.net  
Web Site Address (if applicable):

---

**E. Regulatory/Emergency contact**

Legal Name of Contact Person (First Name, MI, Last Name): Chris Benonis  
Title: Manager, Solar Incentives  
Organization: Astrum Solar  
Street Address: 8955 Henkels Lane Ste 508  
City: Annapolis Junction State: MD Zip Code: 20701  
Phone: 410-443-1830 Fax: 443-267-0036  
Email Address: chris.benonis@astrumsolar.com  
Web Site Address:

## **F. Certification Criteria 1: Deliverability of the Generation into Ohio**

Ohio Revised Code (ORC) Sec. 4928.64(B)(3)

*The facility must have an interconnection with an electric utility.*

Check which of the following applies to the facility's location:

No The facility is located in Ohio.

Yes The facility is located in a state geographically contiguous to Ohio (Indiana, Kentucky, Michigan, Pennsylvania, or West Virginia).

No The facility is located in the following state:

*(If the renewable energy resource generation facility is not located in Ohio, Indiana, Kentucky, Michigan, Pennsylvania, or West Virginia, you are required to submit a POWER FLOW study by one of the regional transmission organizations (RTO) operating in Ohio, either PJM or Midwest ISO, demonstrating that the power from the facility is physically deliverable into the state of Ohio. This study must be appended to the application as an exhibit. THE FACILITY MUST BE INTERCONNECTED TO TRANSMISSION LINES. FOR ADDITIONAL INFORMATION ON DELIVERABILITY REQUIREMENTS, PLEASE REFER TO THE COMMISSION FINDING & ORDER of 3/23/11 IN CASE NO. 09-555-EL-REN.)*

## **G. Certification Criteria 2: Qualified Resource or Technology**

*You should provide information for only one resource or technology on this application; please check and/or fill out only one of the sections below. If you are applying for more than one resource or technology, you will need to complete a separate application for each resource or technology.*

**G.1.** For the resource or technology you identify in Sections G.4 - G.13 below, please provide a written description of the system.

This system is a roof-mounted, grid-tied photovoltaic solar system. It consists of 57 Suntech pluto240-Wde and 57 Enphase Microinverters

**G.2.** Please include a detailed description of how the output of the facility is going to be measured and verified, including the configuration of the meter(s) and the meter type(s).

The system was installed with a Hialeah utility Grade Meter made by ABB. Monitoring will also take place with Enlighten Enphase System

**G.3.** Please submit digital photographs that depict an accurate characterization of the renewable generating facility. Please indicate the date(s) the photographs were taken. For existing facilities, these photographs must be submitted for your application to be reviewed. For proposed facilities or those under construction, photographs will be required to be filed within 30 days of the on-line date of the facility.

September 30, 2011



September 30, 2011





September 30, 2011



September 30, 2011



**The Applicant is applying for certification in Ohio for a facility using one of the following qualified resources or technologies (Sec. 4928.01 ORC):**

**G.4 \_\_ SOLAR PHOTOVOLTAIC**

**G.4a** Location of the PV array: Yes Roof No Ground No Other

Description:

**G.4b** Total number of Modules: 57

**G.4.1 PV Modules**

For each PV module, provide the following information:

**G.4.1.a** Manufacturer: Suntech

**G.4.1.b** Model and Rating: Pluto240-Wde

**H. Certification Criteria 3: Placed-in-Service Date** (Sec. 4928.64. (A)(1) O.R.C.)

The Renewable Energy Facility:

No has a placed-in-service date before January 1, 1998; (month/day/year):

Yes has a placed-in-service date on or after January 1, 1998; (month/day/year): 9/30/11

No has been modified or retrofitted on or after January 1, 1998; (month/day/year):

Please provide a detailed description of the modifications or retrofits made to the facility that rendered it eligible for consideration as a qualified renewable energy resource. In your description, please include the date of initial operation and the date of modification or retrofit to use a qualified renewable resource. Please include this description as an exhibit attached to your application filing and identify the subject matter in the heading of the exhibit.

No Not yet online; projected in-service date (month/day/year):

**H.1** Is the renewable energy facility owner a mercantile customer? No

ORC Sec. 4928.01 (19) "Mercantile customer" means a commercial or industrial customer if the electricity consumed is for nonresidential use and the customer consumes more than seven hundred thousand kilowatt hours per year or is part of a national account involving multiple facilities in one or more states.

Has the mercantile customer facility owner committed to integrate the resource under the provisions of Rule 4901:1-39-08 O.A.C? No

If yes, please insert/submit a copy of your approved application as an exhibit to this filing.

## I. Facility Information

**I.a** The nameplate capacity of the entire facility kilowatts (kW): 13.68 or in megawatts (MW): 0.01368

**I.b** If applicable, what is the expected heat rate of resource used per kWh of net generation:  
13.68 BTU/kWh

**I.1** For each generating unit, provide the following information:

<u>Unit In-Service</u> <u>Date</u>	<u>Unit Nameplate</u> <u>Capacity (MW)</u>	<u>Projected Gross</u> <u>Annual Generation</u>	<u>Expected Annual</u> <u>Capacity Factor %</u>	<u>Number of</u> <u>Generating Units</u>
9/30/11	0.01368	15.97	13.3	1

$$\text{Capacity Factor \%} = \frac{\text{Projected Annual Generation}}{\text{Nameplate Capacity} \times 8,760} \times 100$$

## J. Regional Transmission Organization Information

In which Regional Transmission Organization area is your facility located:

Yes Within Geographic Area of PJM Interconnection, L.L.C.

No Within Geographic Area of Midwest ISO

No Other (specify):

## K. Attribute Tracking System Information

Are you currently registered with an attribute tracking system: No

In which attribute tracking system are you currently registered or in which do you intend to register (*the tracking system you identify will be the system the PUCO contacts with your eligibility certification*):

Yes GATS (Generation Attribute Tracking System)

No M-RETS (Midwest Renewable Energy Tracking System)

Other (specify):

**K.1** Enter the generation ID number you have been assigned by the tracking system:

(If the generation ID number has not yet been assigned, you will need to file this number in the PUCO Case Docket within 15 days of the facility receiving this number from the tracking system).

## L. Other State Certification

Is the facility certified by another state as an eligible generating resource to meet the renewable portfolio standards of that state? Yes

**L.1** If yes, for each state, provide the following information:

<u>Name of State</u>	<u>State Certification Agency</u>	<u>State Certification Number</u>	<u>Date Issued</u>
PA	PAAEPS	PA-395764-SUN	November 13, 201

-1

## M. Type of Generating Facility

Please check all of the following that apply to the facility:

No Utility Generating Facility:

No Investor Owned Utility

No Rural Electric Cooperative

No Municipal System

No Electric Services Company (competitive retail electric service provider certified by the PUCO)

Yes Distributed Generation with a net metering and interconnection agreement with a utility.  
Identify the utility: PECO

No Distributed Generation with both on-site use and wholesale sales.  
Identify the utility with which the facility is interconnected:

No Distributed Generation, interconnected without net metering.  
Identify the utility with which the facility is interconnected:



## **N. Meter Specifications**

### **Metering Requirements**

*If the renewable energy resource generating facility is 6 kW or below, the output may be measured with either an inverter meter or a utility grade meter.*

*All facilities that are larger than 6 kW must measure the output of the facility with a utility grade meter. Facilities that are larger than 6 kW and that are not measuring output with a utility grade meter will not be certified. OAC 4901:1-40-04 (D)(1)*

*Please only report on the meter or the meters used to measure the output from the facility which will be reported to the attribute tracking system.*

**N.a** The meter(s) that are measuring output from the facility are:

N Inverter Meter(s)

Y Utility Grade Meter(s) *(Must meet ANSI 12.1, or demonstrate an accuracy level of  $\pm 2\%$ )*

**N.1 Please provide the following information for each meter used in your system.**

**N.1.a** Manufacturer: ABB

**N.1.b** Serial Number: 92411243

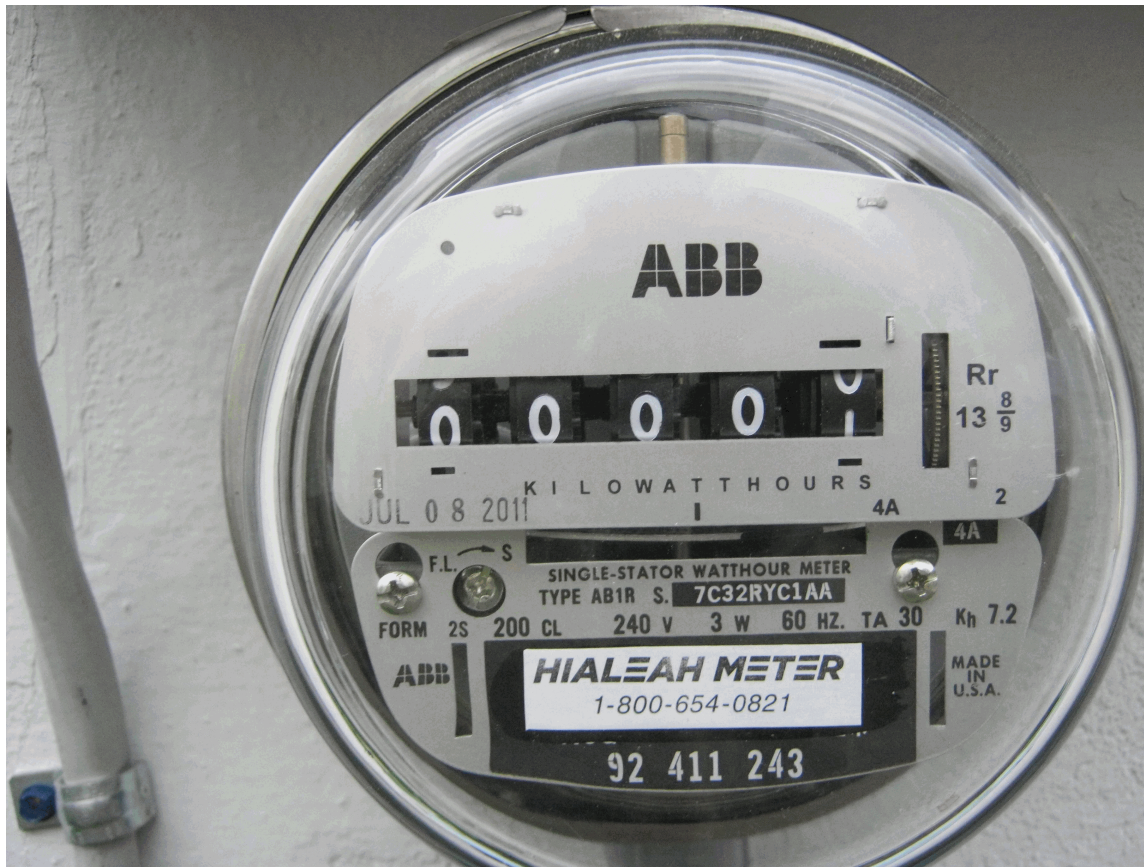
**N.1.c** Type: Hialeah

**N.1.d** Date of Last Certification: July 08, 2011

Attach a photograph of the meter(s) with date image taken. The meter reading(s) must be clearly visible in the photograph.

**N.1.e** Report the total meter reading number at the time the photograph was taken and specify the appropriate unit of generation (e.g., kWh): 0

September 30, 2011



**O. Start date from which applicant requests to begin reporting generation towards the creation of Renewable Energy Credits (RECs) for Ohio's purposes**

The start date from which an attribute tracking system will begin to count generation data toward the creation of renewable energy credits for Ohio's purposes will be the date of certificate issuance in the state of Ohio (i.e. generation prior to the date of certification would not be recognized), unless the facility satisfies one of the criterion established in the Commission's June 17, 2009 Entry on Rehearing issued in Case No. 08-888-EL-ORD.

In that Entry, the Commission found it to be appropriate to recognize the creation of RECs back to July 31, 2008, the date in which the Ohio alternative energy portfolio standard law became effective, provided that "The facility was a participant in an existing attribute tracking system during that time or had a meter in place which can accurately demonstrate generation levels from July 31, 2008 forward." (June 17, 2009 Entry on Rehearing at 34.)

(1) Existing attribute tracking system:

- a. For facilities that are currently participating in an attribute tracking system, it is not sufficient to merely be registered with the tracking system; you also must be reporting generation data.
- b. If the facility was a participant in an existing attribute tracking system, please state the specific start date that will be used to recognize historical RECs.

(2) Meter which can accurately demonstrate generation levels from July 31, 2008:

- a. For facilities which have had a meter in place, accurately demonstrating generation levels must include documentation from an electric remote monitoring and reporting system, from the specified start date, and recorded on at least a monthly basis.
- b. If the facility had a meter that accurately demonstrates generation levels, please state the specific start date, and attach documentation from the remote monitoring and reporting system.

Note: An application that leaves section O blank, or does not include the required documentation, will be assigned a start date for Ohio that corresponds with the date of Ohio certification.

If the facility was a participant in an existing attribute tracking system, please state the specific start date, in accordance with the tracking system's rules, that will be used to recognize historical RECs:

If the facility had a meter that accurately demonstrates generation levels, please state the specific start date, and below insert documentation from the remote monitoring and reporting system:  
September 30, 2011

Also, in the Commission's Entry on Rehearing, the Commission explained that consistent with its policy on double counting, the Commission "will not retroactively recognize any past RECs which have been sold or otherwise consumed." (June 17, 2009 Entry on Rehearing at 34.)

Has any of the generation of the facility been tracked as RECS that have been sold or otherwise consumed? No

enlighten

DASHBOARD SYSTEMS ACCOUNT SUPPORT

[e]enphase  
ENERGY

Systems

Mach, Richard Residence

Norristown, PA 63°F

Normal 57 Inverters Reports Settings

Installed by



Overview

Power Production

4.33kW

Today's Peak: 5.45 kW

Today's Energy

4.57kWh



Past 7 Days

272kWh



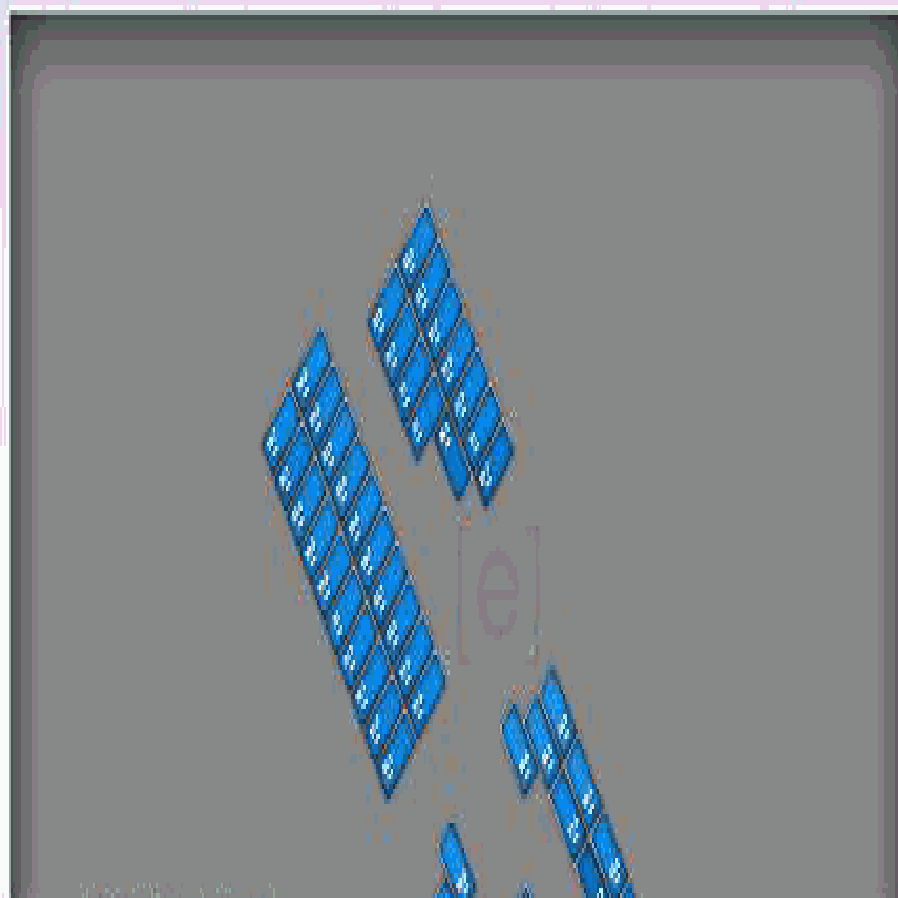
This Month's Energy

586kWh



Lifetime Energy

1.87MWh



08:55

10 Sep 11



00:00

14 Nov 11

GMT-0500

Zoom

Max



**Public Utilities  
Commission**

Application for Certification as an  
Eligible Ohio Renewable Energy  
Resource Generating Facility

Case No.: 11-5829-EL-REN

***AFFIDAVIT***

State of MD:

Annapolis Junction ss.  
(Town)

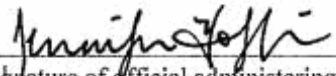
County of Howard :

Chris Benonis, Affiant, being duly sworn/affirmed according to law, deposes and says that:

1. I am the duly authorized representative of Mach, Richard Residence.
2. I have personally examined and am familiar with all information contained in the foregoing application, including any exhibits and attachments, and that based upon my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.
3. The facility has obtained or will obtain and will maintain all required local, state and federal environmental permits.
4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

, Manager, Solar Incentives  
Signature of Affiant & Title

Sworn and subscribed before me this 29th day of November, 2011 Month/Year

  
Signature of official administering oath

Jennifer Hoffpauir, Notary Public  
Print Name and Title

My commission expires on 2/7/15



***The Public Utilities Commission of Ohio reserves the right to verify the accuracy of the data reported to the tracking system and to the PUCO.***

Version: June 15, 2011



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**11/29/2011 3:33:39 PM**

**in**

**Case No(s). 11-5829-EL-REN**

Summary: Application This is the application for certification of Richard Mach's photovoltaic installation as renewable energy resources in the State of Ohio electronically filed by Mr. Christopher J Benonis on behalf of Astrum Solar and Richard Mach