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FILE
Ohio

**Public Utilities
Commission**

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

Case No.: 10-224-EL-REN

A. Name of Renewable Generating Facility: ROSA 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: 9325 VINTAGE COURT

City: MENTOR State: OHIO Zip Code: 44060

Facility Latitude and Longitude

Latitude: 41.66 North Longitude: 81.31 West

There are internet mapping tools available to determine your 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. 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.

Applicant's Legal Name (First Name, MI, Last Name): CHARLES W. ROSA

Title: Home owner

Organization: ROSA residence

Street Address: 9325 VINTAGE CT.

City: MENTOR State: OHIO Zip Code: 44060

Country: USA

Phone: 440-974-2054 Fax:

Email Address: chasrosa@att.net

Web Site Address (if applicable):

CAROLE B. JACOBSON
Notary Public, STATE OF OHIO
My Commission Expires 4/15/14
(Recorded in Lake County)

Carole B. Jacobson
2-16-10

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Technician DR Date Processed 2/19/2010

PUCO

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

Applicant's Legal Name (First Name, MI, Last Name): *CHARLES W. ROSA*

Title: *Home owner*

Organization: *ROSA residence*

Street Address: *9325 VINTAGE CT.*

City: *MENTOR* State: *OH* Zip Code: *44060*

Country: *USA*

Phone: *440 974 2059* Fax:

Email Address: *chasrosa@att.net*

Web Site Address (if applicable):

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

Legal Name of Contact Person (First Name, MI, Last Name): *CHARLES W. ROSA*

Title: *Home owner*

Organization: *ROSA residence*

Street Address: *9325 VINTAGE CT.*

City: *MENTOR* State: *OH* Zip Code: *44060*

Country: *USA*

Phone: *440 974 2059* Fax:

Email Address: *chasrosa@att.net*

Web Site Address (if applicable):

E. Contact person for regulatory or emergency matters

Legal Name of Contact Person (First Name, MI, Last Name): *CHARLES W. ROSA*

Title: *Home owner*

Organization: *Home owner*

Street Address: *9325 VINTAGE CT.*

City: *MENTOR* State: *OH* Zip Code: *44060*

Country: *USA*

Phone: *440 974 2059* Fax:

Email Address: *chasrosa@att.net*

Web Site Address (if applicable):

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 your facility's location:

☒ The facility is located in Ohio.

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

☐ 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 study by one of the regional transmission organizations (RTO) operating in Ohio, either PJM or Midwest ISO, demonstrating that the power from your facility is physically deliverable into the state of Ohio. The study may be conducted by someone other than the RTO provided that the RTO approves the study. This study must be appended to your application as an exhibit.

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.

Solar PV array of (14) roof mounted panels produce 1.46 KW. I have a 2500 Watt OUTBACK inverter with grid tie to First ENERGY.

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).

Output measured by a NW-IT CENTRON 125 meter. Meter has a running digital display of KWHrs produced see attached drawing for meter detail.

G.3. Please attach 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.

Date photograph taken: Feb 16, 2010

INSERT PHOTOGRAPH(S)

The Applicant is applying for certification in Ohio based on the following qualified resource or technology (Sec. 4928.01 O.R.C.):

G.4 __ SOLAR PHOTOVOLTAIC

Total PV Capacity (DC): 1.48 KW

Total PV Capacity (AC): 1.34 KW

Expected Capacity Factor: .159

Capacity factor is the ratio of the energy produced to the maximum possible at full power, over a given time period. Capacity factor may be calculated using this formula:

Projected annual generation (kWh or MWh) divided by [the nameplate capacity (in kW or MW) times 8760]

Anticipated Annual output in kWh/yr: 2054

Location of the PV array: ☒ Roof ☐ Ground ☐ Other

of Modules and/or size of the array:

G.4a PV Modules

For each PV module, provide the following information:

Manufacturer: 4-each SUN ELECTRONICS HS-A-210, 210 watts

Model and Rating: 4-each BP SOLAR BP350U 50 WATTS

4-each Solarex 5X50M 50 WATTS

2-each MATRIX PW6-123 123 WATTS

G.5 __ SOLAR THERMAL (FOR ELECTRIC GENERATION)

G.6 __ WIND

Total Nameplate Capacity (kilowatts AC): or kW DC:

Expected Capacity Factor:

Anticipated Annual Output in kWh/yr or MWh/yr:

of Generators:

G.6a Wind Generators

If your system includes multiple generators, please provide the following information for each unique generator you have in your system

Manufacturer:

Model Name and Number:

Generator Nameplate Capacity (kilowatts AC):

Wind Hub Height (ft):

Wind Rotor Diameter (ft):



G.7 __ HYDROELECTRIC ("hydroelectric facility" means a hydroelectric generating facility that is located at a dam on a river, or on any water discharged to a river, that is within or bordering this state or within or bordering an adjoining state (Sec. 4928.01(35) O.R.C.)

Check each of the following to verify that your facility meets each of the statutory standards (Sec. 4928.01(35) O.R.C.):

- (a) The facility provides for river flows that are not detrimental for fish, wildlife, and water quality, including seasonal flow fluctuations as defined by the applicable licensing agency for the facility.
- (b) The facility demonstrates that it complies with the water quality standards of this state, which compliance may consist of certification under Section 401 of the "Clean Water Act of 1977," 91 Stat. 1598, 1599, 33 U.S.C. 1341, and demonstrates that it has not contributed to a finding by this state that the river has impaired water quality under Section 303(d) of the "Clean Water Act of 1977," 114 Stat. 870, 33 U.S.C. 1313.
- (c) The facility complies with mandatory prescriptions regarding fish passage as required by the Federal Energy Regulatory Commission license issued for the project, regarding fish protection for riverine, anadromous, and catadromus fish.
- (d) The facility complies with the recommendations of the Ohio Environmental Protection Agency and with the terms of its Federal Energy Regulatory Commission license regarding watershed protection, mitigation, or enhancement, to the extent of each agency's respective jurisdiction over the facility.
- (e) The facility complies with provisions of the "Endangered Species Act of 1973," 87 Stat. 884, 16 U.S.C. 1531 to 1544, as amended.
- (f) The facility does not harm cultural resources of the area. This can be shown through compliance with the terms of its Federal Energy Regulatory Commission license or, if the facility is not regulated by that commission, through development of a plan approved by the Ohio Historic Preservation Office, to the extent it has jurisdiction over the facility.
- (g) The facility complies with the terms of its Federal Energy Regulatory Commission license or exemption that are related to recreational access, accommodation, and facilities or, if the facility is not regulated by that commission, the facility complies with similar requirements as are recommended by resource agencies, to the extent they have jurisdiction over the facility; and the facility provides access to water to the public without fee or charge.
- (h) The facility is not recommended for removal by any federal agency or agency of any state, to the extent the particular agency has jurisdiction over the facility.

G.7.1 Is your facility currently certified by the Low-Impact Hydro Institute?

☐ Yes

☐ No

G.8 ☐ GEOTHERMAL

G.9 ☐ SOLID WASTE (as defined in ORC section 3734.01), electricity generation using fuel derived from solid wastes through fractionation, biological decomposition, or other process that does not principally involve combustion. (Sec. 4928.01(A)(35) O.R.C.)

Identify all fuel types used by the facility and respective proportions (show by the percent of heat input):

G.10 ☐ BIOMASS (includes biologically-derived methane gas, such as landfill gas)

Identify the fuel type used by the facility:

If co-firing an electric generating facility with a biomass energy resource, the proportion of fuel input attributable to the biomass energy resource shall dictate the proportion of electricity output from the facility that can be considered biomass energy.

G.10a List all fuel types used by the facility and respective proportions (show by the percent of heat input):

G.10b Please attach the formula for computing the proportions of output per fuel type by MWh or kWh generated.

G.11 ☐ FUEL CELL (any fuel cell used in the generation of electricity, including, but not limited to, a proton exchange membrane fuel cell, phosphoric acid fuel cell, molten carbonate fuel cell, or solid oxide fuel cell; Sec. 4928.01(35)(A) O.R.C.).

Identify all fuel types used by the facility and respective proportions:

G.12 ☐ STORAGE FACILITY

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

The Renewable Energy Facility:

☐ has a placed-in-service date before January 1, 1998; (month/day/year):

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

☐ 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.

☐ Not yet online; projected in-service date (month/day/year):

H.1 Is the renewable energy facility owner a mercantile customer?

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.

☒ No

☐ Yes

Has the mercantile customer facility owner committed to integrate the resource under the provisions of Rule 4901:1-39-08 O.A.C?

☐ No

☐ Yes

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

L. Facility Information

The nameplate capacity of the entire facility in megawatts (MW):

If applicable, what is the expected heat rate of resource used per kWh of net generation:
BTU/kWh

Number of Generating Units: 1

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

| In-Service date of each unit | The nameplate capacity of each unit in megawatts (MW) | Projected Annual Generation | Expected Annual Capacity Factor % |
|------------------------------|---|-----------------------------|-----------------------------------|
| 20Feb2003 | .00148 | 2054 kWh | .159 |
| | | | |
| | | | |
| | | | |
| | | | |

(To expand the number of rows if more units need to be reported, place your cursor in the bottom right cell and hit tab).

J. Regional Transmission Organization Information

In which Regional Transmission Organization area is your facility located:

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

☒ Within Geographic Area of Midwest ISO

☐ Other (specify):

K. Attribute Tracking System Information

Are you currently registered with an attribute tracking system: ☐ Yes ☒ 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*):

☒ GATS (Generation Attribute Tracking System)

☐ 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 provide this number to the PUCO within 15 days of your 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

☒ No

| Name of State | State Certification Agency | State Certification Number | Date Issued |
|---------------|----------------------------|----------------------------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

(To expand the number of rows if more units need to be reported, place your cursor in the bottom right cell and hit tab).

M. Type of Generating Facility

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

☐ Utility Generating Facility:

☐ Investor Owned Utility

☐ Rural Electric Cooperative

☐ Municipal System

☐ Electric Services Company (competitive retail electric service provider certified by the PUCO)

☒ Distributed Generation with a net metering and interconnection agreement with a utility.

Identify the utility: *FIRST ENERGY THE ILLUMINATING CO.*

☐ Distributed Generation with both on-site use and wholesale sales.

Identify the utility with which the facility is interconnected:

☐ Distributed Generation, interconnected without net metering.

Identify the utility with which the facility is interconnected:

Note: if the facility does not yet have an interconnection agreement with a utility or transmission system operator, please note here the status of the application for such an agreement:

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

State Certification

State Certification

Date Issued

TOTAL SOLAR
POWER

00002
kWh

CL 200 120V 3W FM12S TYPE CN1S 30 TA 1.0Kh



Certified to $\pm 0.3\%$
02/02/10
www.Austininc.com



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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.

The meter(s) that are measuring output from the facility are:

____ Inverter Meter(s)

☒ Utility Grade Meter(s)

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

Manufacturer: *CENTRON*

Serial Number: *47798562*

Type: *Polyphase meter CN15 30TA 1.0Kh*

Date of Last Certification: *02/02/10*

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

16 Feb 2010

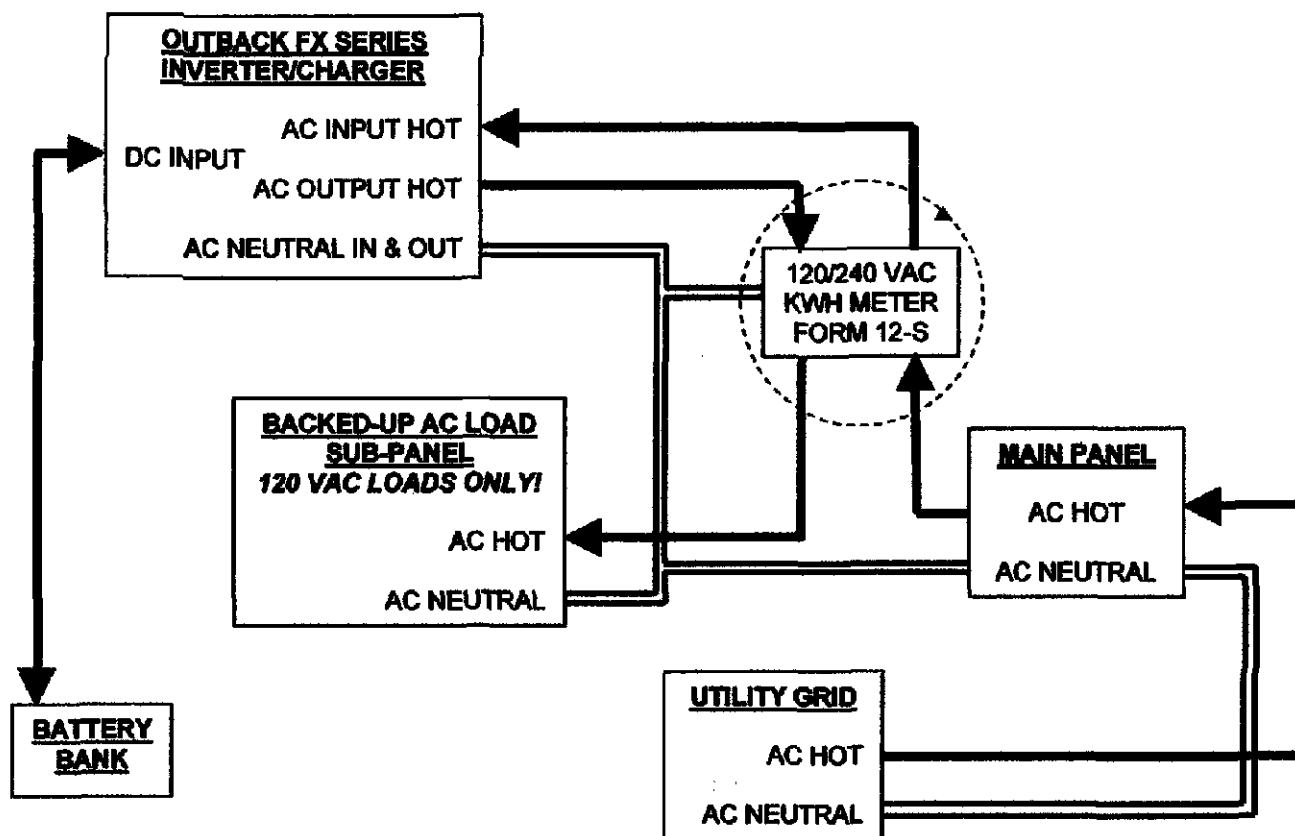
Report the total meter reading number at the time the photograph was taken and specify the appropriate unit of generation (e.g., kWh): *1 KWh*

Date photograph taken: *16 Feb 2010*

INSERT PHOTOGRAPH(S)

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.

120 VAC / SINGLE INVERTER "GREEN TAG" KWH METERING



This metering configuration will spin the KWH meter forward when power is being "sold" back to the utility grid from an AE source connected to the battery. The meter will also spin forward when the inverter is powering loads from the battery (such as during a power outage). It will spin backwards when the battery is being charged (i.e. subtracting the power being stored). AC loads which are being powered from the utility grid through the inverter will not cause the meter to spin in either direction.

Recommended KWH Meter Model: Self-Contained Polyphase KWH meter
Model # R-12S-1513
120 VAC 60 AMP "5 Jaw" Type
(also available in 100 amp and 200 amp versions)

Available Remanufactured From: Hialeah Meter Company
450 West 28th Street / P.O. Box 1047
Hialeah, FL 33011
Toll Free - 800.654.0821
Phone - 305.887.8931
Fax - 305.887.6542
www.hialeahmeter.com

Austin International, Inc.
7 Ross Cannon Street
York, SC 29745
Phone - 803.628.0035
Fax - 803.628.0282
www.electricalconnector.com