Ohio | Public Utilities Commission

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

Case No.: 09-1860-EL-REN

A. Name of Renewable Generating Facility: Conesville Generating Station Unit 3
The name specified will appear on the facility's certificate of eligibility issued by the Public Utilities Commission of Ohio.

Facility Location
Street Address: 47201 CR 273
City: Conesville State: OH Zip Code: 43811

Facility Latitude and Longitude
Latitude: 40.182601 N Longitude: 81.876814 W

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: Conesville Plant

EIA Plant Code: 2840

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):
Title: Columbus Southern Power Company (CSP)
Organization: Columbus and Southern Power Company (CSP)
Street Address: 1 Riverside Plaza
City: Columbus State: OH Zip Code: 43215
Country: USA
Phone: 614.716.1000 Fax: Email Address:
Web Site Address (if applicable): www.aep.com

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): Same as above "B"
Title:
Organization:
Street Address:
City: State: Zip Code:
Country:
Phone: Fax: Email Address:
Web Site Address (if applicable):

D. Name of Generation Facility Operating Company:
Legal Name of Contact Person (First Name, MI, Last Name): Same as above in "B"
Title:
Organization:
Street Address:
City: State: Zip Code:
Country:
Phone: Fax: Email Address:
Web Site Address (if applicable):

E. Contact person for regulatory or emergency matters
Legal Name of Contact Person (First Name, MI, Last Name): Selwyn J. Dias
Title: VP Regulatory & Finance
Organization: American Electric Power Service Corporation
Street Address: 850 Tech Center Drive
City: Gahanna State: OH Zip Code: 43230
Country: USA
Phone: 614.883.6701 Fax: Email Address: sjdias@aep.com
Web Site Address (if applicable): www.aep.com

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:

_X_ 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.

The proposed renewable fuel for this unit is solid biomass which may be burned at a 100% level or blended with coal and/or natural gas as outlined in Section G10a . The new resource or technology in this case is the integration of biomass as a renewable fuel into the fuel supply. Currently Conesville Plant is not consuming any renewable fuel and this integration is the modification.

Specifically addressing the Torrefied biomass:
Although the fuel will arrive at Conesville plant torrefied, below is a summary of a general torrification process and the benefits of the technology. Specific processes are proprietary to the third party producer and will vary.

Torrification, similar to mild pyrolysis, is completed in the 200-400°C temperature range which improves the fuel properties as compared too raw or green biomass. Within this temperature range, torrefied bi-products and volatiles are formed resulting in hardened, dried, and less volatile fuel. The bi-products and volatiles are recycled into the processes as fuel and it is self contained following initial start up.

There are several benefits to torrefied biomass.

1. The fuel contains a much higher energy density than raw or green biomass. This increase in energy density makes it more economical to transport the fuel over greater distances.
2. Torrefied biomass is hydrophobic, meaning that the physical property of the molecule is repelled from a mass of water. Since the fuel is hydrophobic, it can be stored outside for significant periods of time without taking up water and therefore utilizing the same materials handling infrastructure as coal.
3. Due to the increased friability, Hardgrove Index within the range of coal, the torrefied biomass requires less energy to pulverize or grind than raw or green biomass and again can be done within the existing coal infrastructure.
4. The torrification process decreases the amount of moisture and volatile matter in the fuel. Raw or green biomass is more volatile than coal and its dust. Because of this, there is a risk of explosion given and ignition source. If raw or green biomass is integrated into the fuel supply significant investment in materials handling and fire protection and detection would be required.
5. Torrefied biomass is expected to be integrated into the existing plant infrastructure with minimal retrofits due to the physical characteristics of the fuel. Test burns are required to determine the extent if any of the retrofits required.

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 net generation from each unit is measured using the meters identified in Section N

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.

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):
Total PV Capacity (AC):
Expected Capacity Factor:
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:
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:
Model and Rating:

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.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_X_ BIOMASS (includes biologically-derived methane gas, such as landfill gas)

Identify the fuel type used by the facility: Solid Biomass.
Potential Biomass Fuels:
Torreifed biomass
Raw wood chips
Sawdust
Wood pellets
Herbaceous crops
Agricultural waste

Rest:
Coal and/or Natural Gas

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):

Solid biomass fuel including but not limited to Torreifed biomass, raw wood chips, sawdust, wood pellets, herbaceous crops, agricultural waste will be co-fired with coal and/or natural gas in proportions up to 100% of total heat input.

Initially a testing period will be required to determine the optimal percentage of biomass that can be consumed.

The long range goal will depend on the results of the initial tests as well as fuel availability and market economics. For the test burns, efforts have been made to minimize modifications that may be required for long term fuel consumption.

CSP is seeking to qualify the output of Conesville Plant based on Btu input that is produced from renewable fuels. Due to issues with fuel availability and market conditions CSP does not intend to certify a fixed percentage.

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

Ohio Administrative Code (O.A.C) § 4901:1-40-01(G) (PUCO adopted but not yet effective) defines a "renewable energy resource" in connection with "co-firing" as follows:

"Co-firing means simultaneously using multiple fuels in the generation of electricity. In the event of co-firing, the proportion of energy input comprised of a renewable energy resource shall dictate the proportion of electricity output from the facility that can be considered a renewable energy resource."

Output in MWh will be calculated in the same proportion as the Btu input.

Formula to calculate RECs:

$$MWH_{REC} = \left(\frac{m_b \bullet HHV_b}{m_b \bullet HHV_b + m_c \bullet HHV_c} \right) \bullet MWH_{NET,MEASURED}$$

MWH_{REC} = renewable energy credits
M_b = biomass fuel
M_c = coal mass
HHV_b = biomass heating value
HHV_c = coal heating value (and/or total equivalent heating value of natural gas)
$MWH_{NET,MEASURED}$ = actual net megawatt hours measured for a given time period

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

If using compressed air or pumped hydropower, the renewable energy resource used to impel the resource into the storage reservoir is (include resource type and facility name):

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):

_X_ has been modified or retrofitted on or after January 1, 1998; (month/day/year):
As required, the date in which the renewable fuel will be consumed is after January 1, 1998. In addition, the initial testing will determine any additional modifications required to support biomass as a fuel source.

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.

_X_ Not yet online; projected in-service date (month/day/year):
The facility has not used renewable fuel to date. The current projection is to test as early as April 2010.

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.

_X_ 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.

I. Facility Information

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

If applicable, what is the expected heat rate of resource used per kWh of net generation:
10,000 – 11,000 BTU/kWh
Number of Generating Units: 1 (Unit 3 is the only unit at the plant that this application is seeking to qualify)

I.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 (GWh)	Expected Annual Capacity Factor %
Unit # 3 - 4/1/2010	165 MWs	330 - 415	5 to 60%
Unit # 4 - 1973	*780 MWs*	*3,000 – 5,000*	*35 to 80%*
Unit # 5 - 1976	*375 MWs*	*1,700 – 2,500*	*40 to 80%*
Unit # 6 - 1978	*375 MWs*	*1,500 – 2,600*	*40 to 75%*

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

In-Service date for unit 3 as required above refers to the date in which the renewable fuel will be consumed at the Plant. Depending on fuel availability and market conditions, the date above may extend. As required, the date in which the renewable fuel will be consumed is after January 1, 1998.

Unit 3 is the only unit at the plant that this application is seeking to qualify.

Units 4-6 are currently in operation at the plant, but are not seeking qualification.

J. Regional Transmission Organization Information

J.1 In which Regional Transmission Organization area is your facility located:

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

__ Within Geographic Area of Midwest ISO

__ Other (specify):

J.2 Are you a member of a regional transmission organization?

_X_ Yes; specify which one: PJM

__ No; explain why you are not a member of a regional transmission organization:

J.3 Balancing Authority operator or control area operator for the facility:

_X_ PJM

__ Midwest ISO

__ Other (specify):

K. Attribute Tracking System Information

Are you currently registered with an attribute tracking system: _X_ 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):***

_X_ 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:
MSET89120103

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

_X_ No

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

N.A.

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:

_X_ Utility Generating Facility:

_X_ 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:

__ 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:

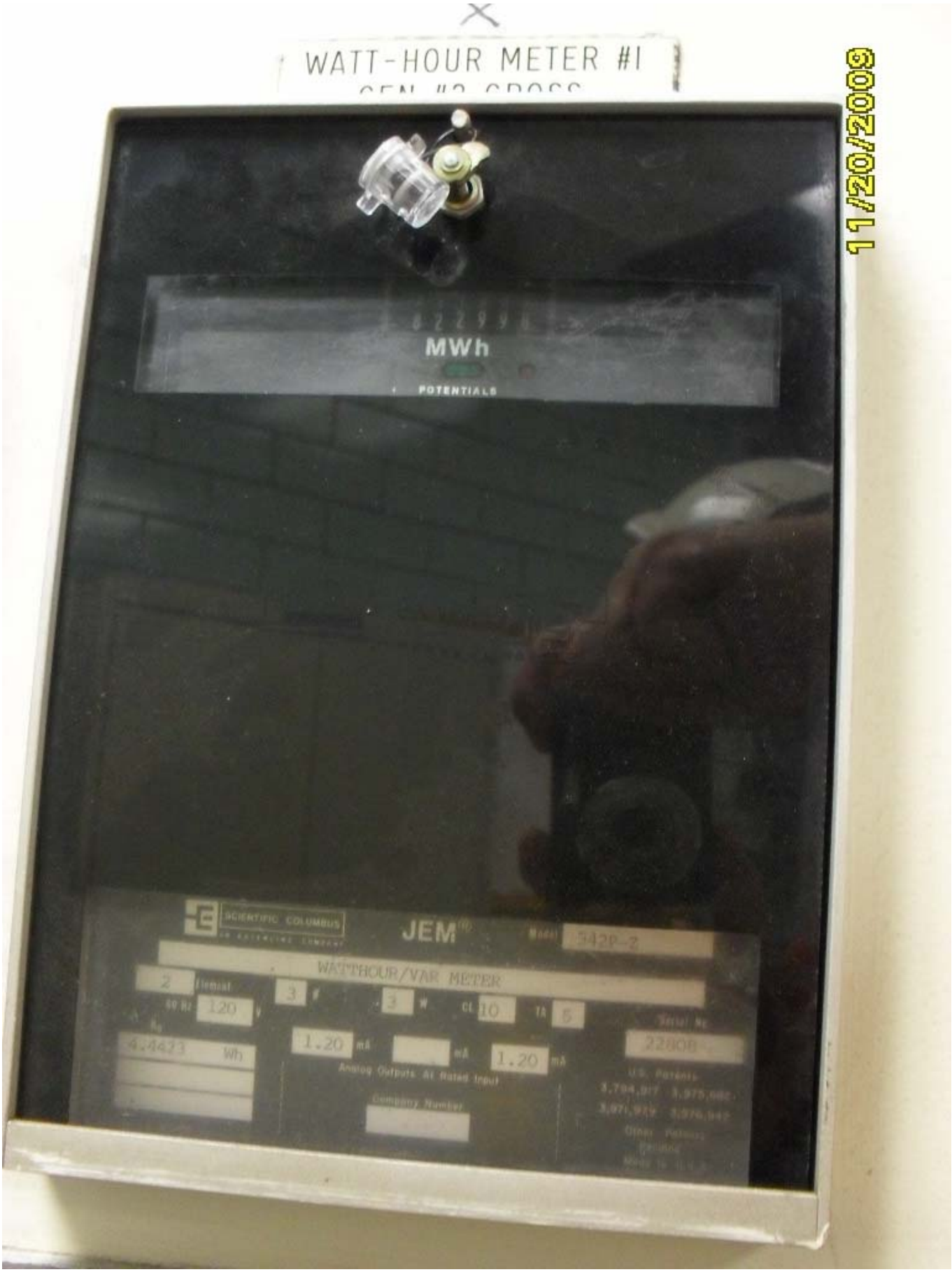
Note: if the facility does not yet have an interconnection agreement with a utility or transmission system operator, please note here the status of the application for such an agreement:

N. Meter Specifications

All facilities are required to measure output with a utility grade meter. Please provide this information for each meter used in your system.

Unit 3
Manufacturer: Scientific Columbus
Serial Number: 22809
Type: JEM 1
Date of Last Certification: 04/12/2006

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


WATT-HOUR METER #I
MWh
POTENTIALS
SCIENTIFIC COLUMBUS
JEM
3428-2
WATTHOUR/VAR METER
120
10
5
1.20
1.20
Analog Outputs At Rated Input
11/20/2009

Report the total meter reading number at the time of the photograph and specify the appropriate unit of generation (e.g., kWh): The unit is currently on a planned outage

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: October 08, 2009

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AFFIDAVIT

State of Ohio:

Conesville **ss.**
(Town)

County of Coshocton:

James D. Henry, Affiant, being duly sworn/affirmed according to law, deposes and says that:

1. I am the duly authorized representative of Conesville Generating Station Unit 3

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.

Vice President - Eastern Fuel Procurement , American Electric Power Service Corporation

Signature of Affiant & Title

Sworn and subscribed before me this 11th day of November, 2009,

Signature of official administering oath

Donna J. Stephens, Notary Public
Print Name and Title

DONNA J. STEPHENS
Notary Public, State of Ohio
My Commission Expires 01-04-2014

My commission expires on January 4, 2014

Summary: Application re Conesville Generating Station Unit 3 Certification as an Eligible Ohio Renewable Energy Resource Generating Facility electronically filed by Mr. Steven T Nourse on behalf of Columbus Southern Power Company