



**Case No.: 10-2368-EL-REN**

**A. Name of Renewable Generating Facility:** Auglaize Hydroelectric Plant 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: 14268 Power Dam Road

City: Defiance State: OH Zip Code: 43512

**Facility Latitude and Longitude**

Latitude: 41 14 13 Longitude: 84 23 55

*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: Auglaize Hydro

EIA Plant Code: 7657

**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.*

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**Legal Name of the Facility Owner:** City of Bryan

Legal Name of Facility Owner Representative (First Name, MI, Last Name): Craig K Preston

Title: Assistant Director of Utilities

Organization: Bryan Municipal Utilities

Street Address: 841 East Edgerton Street

City: Bryan State: OH Zip Code: 43506

Phone: 419-633-6102 Fax: 419-633-6105

Email Address: cpreston@cityofbryan.com

Web Site Address: cityofbryan.net

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**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): Craig K Preston  
Title: Assistant Director of Utilities  
Organization: Bryan Municipal Utilities  
Street Address: 841 East Edgerton Street  
City: Bryan State: OH Zip Code: 43506  
Phone: 419-633-6102 Fax: 419-633-6105  
Email Address: cpreston@cityofbryan.com  
Web Site Address: cityofbryan.net

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

Name of Generation Facility Operating Company: Bryan Municipal Utilities  
Legal Name of Contact Person (First Name, MI, Last Name): Craig K Preston  
Title: Assistant Director of Utilities  
Organization: Bryan Municipal Utilities  
Street Address:  
City: Bryan State: OH Zip Code: 43506  
Phone: 419-633-6102 Fax: 419-633-6105 Email Address: cpreston@cityofbryan.com  
Web Site Address (if applicable): cityofbryan.net

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**E. Regulatory/Emergency contact**

Legal Name of Contact Person (First Name, MI, Last Name): Mathew Killion  
Title: Power Production Superintendent  
Organization: Bryan Municipal Utilities  
Street Address: 841 East Edgerton Street  
City: Bryan State: OH Zip Code: 43506  
Phone: 419-553-9772 Fax: 419-633-6175  
Email Address: mkillion@cityofbryan.com  
Web Site Address: cityofbryan.net

## **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:

Yes The facility is located in Ohio.

No 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 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. The study may be conducted by someone other than the RTO provided that the RTO approves the study. This study must be appended to the 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.

Bryan Municipal Utilities, City of Bryan, Ohio owns and operates a run of the river hydro electric plant on the Auglaize River. Unit 3 commissioned in June of 2004 with a Dominion turbine and has a 2,300 volt 1420 kVA Westinghouse generator rated for 23.8 foot of head water.

**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).

Bryan Municipal Utilities' Hydroelectric plant is metered at the point of interconnection with American Electric Power on the low side of the power transformer, which is 2400 Volts. Instrument transformers consist of two revenue current transformers (0.15% accuracy), two revenue potential transformers (0.15% accuracy) and one revenue class power meter (0.1% accuracy) owned and maintained by American Electric Power. The metering configuration is a two element type, with CTs and PTs. Bryan Municipal Utilities compares metered data from American Electric Power's meter with individual and plant metering located in the plant switchgear. Each generator is metered separately and the plant has a totalizing meter (with relay class CTs and PTs) that is compared with American Electric Power's metering totals on a monthly basis.

Each generator is monitored and metered on an individual and aggregate basis. The generators are metered individually via a GE SR489 multi-function protective relay/meter. The metering class of this relay is 1% accuracy for power elements (kW, kVar) and 0.5% for the voltage output of the generator. Each individual generator output is then input to BMU's SCADA system where it is trended on an aggregate and individual basis. Additionally, the aggregate generation is metered in the power plant and this aggregate generation is compared to the interconnection utilities revenue metering.

**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.

May 10, 2010



May 23, 2002



**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 the facility meets each of the statutory standards (Sec. 4928.01(35) O.R.C.):

- Yes (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.
- Yes (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.
- Yes (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.
- Yes (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.
- Yes (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.
- Yes (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.
- Yes (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.
- Yes (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 the facility currently certified by the Low-Impact Hydro Institute? No

## 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):

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

Yes has been modified or retrofitted on or after January 1, 1998; (month/day/year): 6/1/10

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.

Exhibit I

Description of Facility Modification

In 1999 work began on modification of the facility and generating Unit #3 at the Auglaize Hydroelectric Plant to increase the capacity and overall production of that unit. All modifications to the facility, design and addition of equipment, modifications to auxiliary equipment, retrofits of additional equipment, and modifications and retrofits to the turbine /generator of unit #3 were engineered with that purpose in mind.

Facility modifications done to increase capacity and increase production of Unit #3 included design and installation of flashboards to raise the reservoir 24 inches. The addition of the flashboards allowed the ability to store water. The generator could run during desired hours and then shut down and the river flow would refill the reservoir significantly increasing available generation. If there was no river flow, to run the reservoir from the top of the flashboards to the crest of the spill way would take approximately 57 hours with Unit #3. Prior to the flashboards there would be no generation except during river flow.

Modifications were engineered into the gated spillway that included a separate operating system for each gate and the gates could be raised above the deck. These modifications enhanced water control and reduced plugging of the gates with trees. The quicker you get the water under control and the gates closed allows maximization of the generation. For every 14 minutes a gate is open on the gated spillway with the water at the top of the flashboards equals approximately 1 hour of generation from Unit #3.

The intake to Unit #3 was modified during reconstruction to further enhance generation. The trashracks were angled for maximum lift of debris. The racks were redesigned heavier and with a specific opening to pass the debris that would not plug the turbine and are more resistant to heavy debris. The racks were lowered below the surface of the reservoir with a fender wall above them to prevent damage from trees, ice and over topping. The intake was also widened and a deck added with access holes so maintenance equipment could be operated over the intake. The headgates were replaced and a new operating system was installed on the headgates. All these modifications were designed to improve operations by reducing down time and increasing production.

The modifications to the intake allowed for the designed and fabrication of a trashrake/crane that

can remove debris from the generator intake and gated spill way with minimal impact to production from Unit #1. Prior to the modifications of the intake and fabrication of the trash rake Unit #1 was shutdown to perform these tasks.

While the intakes were being reconstructed Unit #3 was being retrofitted with new a control panel and controls, switchgear, and control wiring. With the increase in head by raising the reservoir level the capacity of the generator could be increase as long the unit could handle it. Temperature, vibration, amperage, voltage, water level could now be accurately monitored and were connected to the utilities SCADA system and remotely monitor to safely maximize the capacity and production of Unit #3.

During April of 2002 the Auglaize Hydro Plant was struck by lightning causing a significant short circuit in the windings that caught the generator on fire. The generator was 1,750 KVA and the turbine runner was cut down with a torch in an effort to make it operate properly with minimal discharge tube modifications. The old unit was very inefficient and under ideal conditions had an output capacity of approximately 950 kW.

The replacement unit was rated at 1,420 KVA at 23 feet of head. The installation of this unit was properly engineered using the unit specifications and best engineering practices. The unit is very efficient especially during high tail water conditions. Replacement Unit #3 consistently generates over 950 kW and under ideal condition will generate over 1,100 kW. This unit requires significantly less water to generate the same amount of energy as the unit it replaced and because of the accumulative output of the facility is much higher. Since Bryan purchased the plant, information we have for two years of operation prior to modifications and retrofits with all installed units operating compared to generation for the two years after the modifications and retrofits with all installed units operating the overall facility output increased over 60%.

Under Section G: Certification Criteria pictures of both units are attached; the generator in operation prior to 2002 lightning strike and the replacement generator commissioned for operation in 2004.

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 in megawatts (MW): 0.8500

I.b If applicable, what is the expected heat rate of resource used per kWh of net generation:  
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>
6/1/04	0.8500	2,300.0000	30.0000	1

## 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: Yes

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 provide this number to the PUCO 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? No

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>
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## M. Type of Generating Facility

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

Yes Utility Generating Facility:

No Investor Owned Utility

No Rural Electric Cooperative

Yes Municipal System

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

No Distributed Generation with a net metering and interconnection agreement with a utility.  
Identify the utility:

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:

No Inverter Meter(s)

Yes Utility Grade Meter(s)

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

**N.1.a** Manufacturer: General Electric

**N.1.b** Serial Number: A3281008

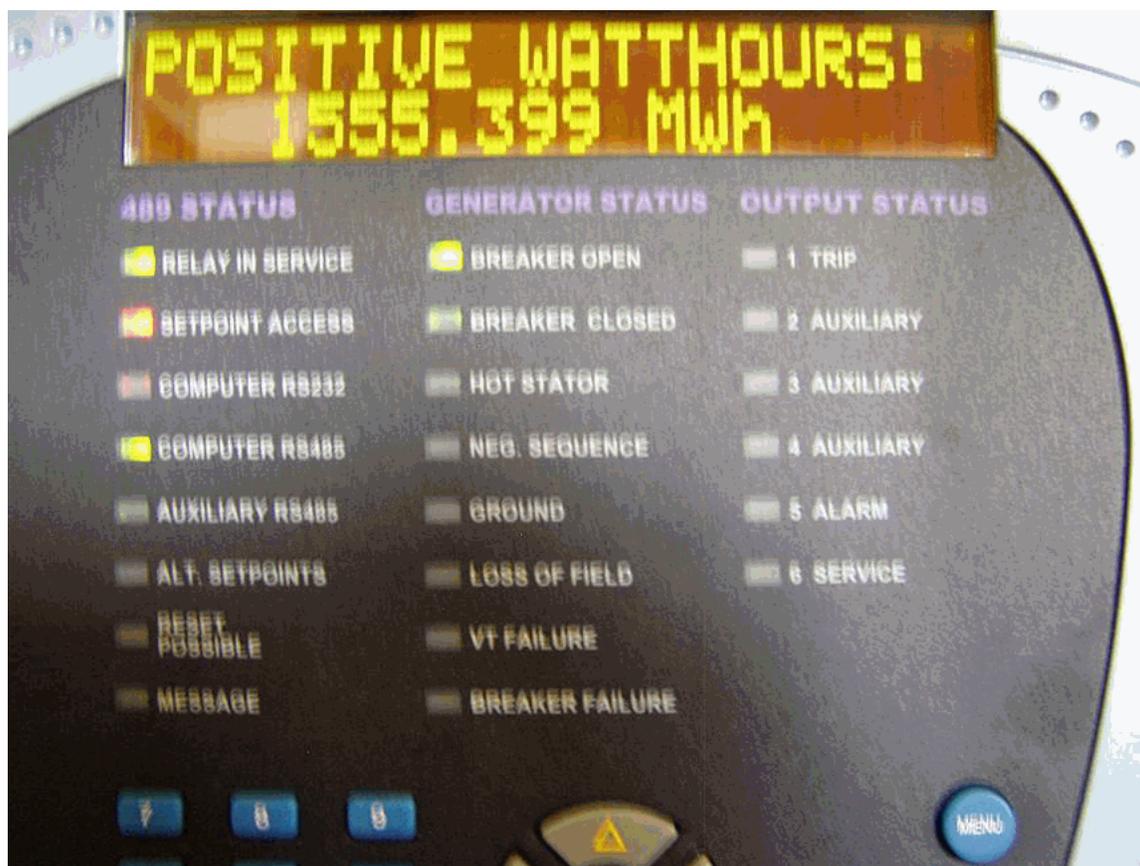
**N.1.c** Type: GE Multilin Generator Management Relay

**N.1.d** Date of Last Certification: September 10, 2010

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): 1555.399 MWh

May 10, 2010



**O. Start date from which the facility may begin reporting generation towards the creation of Renewable Energy Credits (RECs)**

The start date from which an attribute tracking system will begin to count generation data toward the creation of renewable energy credits will be the date of certificate issuance in the state of Ohio, 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.

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:

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



**Public Utilities  
Commission**

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

Case No.: 10-2368-EL-REN

**AFFIDAVIT**

State of Ohio:

Bryan ss.  
(Town)

County of Williams :

Craig K Preston, Affiant, being duly sworn/affirmed according to law, deposes and says that:

1. I am the duly authorized representative of Auglaize Hydroelectric Plant 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.

Craig K Preston \_\_\_\_\_, Assistant Director of Utilities  
Signature of Affiant & Title

Sworn and subscribed before me this 19<sup>th</sup> day of October, 2010 Month/Year

Melanie S Kaiser  
Signature of official administering oath

Melanie S Kaiser, Notary Public  
Print Name and Title

My commission expires on January 29, 2011



***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: September 13, 2010

“Note to applicants: please remember to file the required affidavit along with the application, or the application will be rejected by the PUCO Docketing Division. The affidavit form is available here: <http://www.puco.ohio.gov/PUCO/Forms/Form.cfm?id=9464>”

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

**Commission of Ohio Docketing Information System on**

**11/2/2010 7:24:33 AM**

**in**

**Case No(s). 10-2368-EL-REN**

Summary: Application Bryan Auglaize Unit 3 electronically filed by Mr. Craig K. Preston on behalf of CITY OF BRYAN