

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Buckeye Biogas, LLC                    )  
Application for Certification as an Ohio                    )  
Renewable Energy Resource Generating Facility        )

Case No. 14-2242-EL-REN

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**REVIEW AND RECOMMENDATION**  
SUBMITTED ON BEHALF OF THE STAFF OF  
THE PUBLIC UTILITIES COMMISSION OF OHIO

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**CASE HISTORY**

On December 15, 2014, Buckeye Biogas, LLC (Applicant) submitted an application for certification by the Public Utilities Commission of Ohio (PUCO or Commission) of the heat captured from its combined heat and power (CHP) generator set as a renewable energy resource generator.<sup>1</sup> The Applicant's facility is located at 2072 Secrest Rd, in Wooster, Ohio (the Facility). This Facility was developed by quasar energy group.

According to the application, the Facility is an anaerobic digester facility that converts biomass materials such as biosolids, fats, oil and grease, and food waste into biologically derived methane gas, which is also referred to as biogas. These biomass materials were previously unused or otherwise would be sent to landfills. The application indicates that the Facility was placed in-service in May 2011.

On December 18, 2014, the Applicant submitted an amended application, which included the Process Flow Diagram (Figure 1) that was missing in the original application.

On January 12, 2015, an Attorney Examiner Entry suspended the automatic approval process for this application. On April 15, 2015, Staff sent the Applicant an initial set of questions related to the application. On May 14, 2015, Staff held site visits with the Applicant's representative at two anaerobic digester facilities similar to this Facility. The Applicant filed its responses to the initial data request on October 30, 2015.<sup>2</sup> Staff and Applicant conducted conference calls on November 23, 2015, December 7, 2015, December 21, 2015 and January 21, 2016. The Applicant filed answers to questions raised during these conference calls on December 23, 2015, January 6, 2016 and January 21, 2016.

**STAFF REVIEW**

The Staff's review of an application for certification of a renewable energy resource facility consists primarily, but not exclusively, of three items: (1) the deliverability of the facility's output to the state of Ohio, (2) the resource/ technology used at the facility, and (3) the facility's placed in-service date.

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<sup>1</sup> See, Ohio Revised Code (R.C.) 4928.01(A)(37)(a)(x)

<sup>2</sup> Case No. 14-2242-EL-REN, Reply to Staff request filed by Mr. Bruce Bailey, October 30, 2015, 2:45:34 PM.

1) Deliverability

The Applicant indicates that the Facility is located in Ohio, therefore the Facility meets the generation deliverability requirements, pursuant to R.C. 4928.64(B)(3)(a).

2) Resource/Technology

The Facility accepts approximately 138 wet tons of biomass per day from various sources. All waste material is delivered to the site by truck. The biomass which is fed into the anaerobic digester is converted to biogas. The biogas is then used to fuel a nominally rated 0.6 megawatt (MW) internal combustion engine and electric generator set.<sup>3</sup>

The generator produces electricity, and a byproduct of the electricity production process is hot exhaust gas. The Applicant captures the heat from the hot exhaust gas in a CHP unit heat loop, which consists of a jacket water heat loop and exhaust gas heat exchanger. The heat from the CHP unit heat loop is then transferred to a second heat loop for the plant. The plant heat loop provides heat to the biosolids pasteurization process, heating to the anaerobic digestion process, and seasonal heating to the shop floor. The Facility sometimes flares excess biogas, and a portion of the genset heat is vented to the atmosphere by a radiator. These items are not part of this Application.

Staff concurs with Applicant's proposed methodology<sup>4</sup> for measuring the heat captured and used by the Facility and for converting the measured quantities to an equivalent MWH production level. Based on Staff's review of the application, interrogatory responses, site visits of similar facilities developed by quasar energy group, and discussions with the Applicant, Staff concludes that the Facility does capture heat from a generator of electricity and that the generator is fueled by biologically derived methane gas. As such, Staff concludes that this Facility qualifies as a renewable energy resource, pursuant to R.C. 4928.01(A)(37)(a).

3) Placed In-Service Date

The Applicant indicated in its application that the placed in-service date of the Facility was May 23, 2011, thereby satisfying the requirement of R.C. 4928.64(A)(1), which requires a qualifying renewable energy resource to have a placed-in-service date on or after January 1, 1998.

4) Additional Considerations

- (a) The Facility must be registered with either M-RETS or PJM EIS' GATS, the two attribute tracking systems currently recognized by the Commission. The Applicant indicates that, once approved, it would register the Facility in the PJM GATS.
- (b) Consistent with the Commission's decision in Case No. 11-2667-EL-REN, the Staff would typically recognize a certified facility's renewable output beginning with the later of the application filing date or the facility's placed in-service date. However, this Facility has not yet installed the temperature sensors and will need to determine a baseline volumetric flowrate of the CHP heat loop that is integral to the determination of the MWH

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<sup>3</sup> The electricity produced by the generator facility, Schmack BioMass - OARDC, received a renewable energy certificate number 09-BIO-OH-GATS-0012 from the PUCO on October 15, 2009 in Case No. 09-0526-EL-REN.

<sup>4</sup> Applicant responses dated October 30, 2015 (Question 13), December 23, 2015 (Question 1), and January 6, 2016.

equivalence discussed above. Staff recommends that the Applicant should file an update in this proceeding when the temperature sensors are installed and operational and volumetric flowrate is established, at which point the Commission should commence recognition of the Facility's renewable output.

#### **STAFF RECOMMENDATION**

Based on the foregoing analysis, Staff recommends that the Commission certify the Facility as a renewable energy resource generating facility as it satisfies all the applicable eligibility requirements. Staff further recommends that the Commission commence recognition of the Facility's renewable output when the Applicant has filed an update in this proceeding that the Facility monitoring equipment and volumetric flowrate baseline mentioned in 4(b) is established, installed, and operational.

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

**Commission of Ohio Docketing Information System on**

**1/25/2016 11:40:01 AM**

**in**

**Case No(s). 14-2242-EL-REN**

Summary: Staff Review and Recommendation electronically filed by Ms. Mahila Christopher  
on behalf of PUCO Staff