

Asheville-Buncombe Air Quality Agency Advisory Committee

SUBJECT: February 15, 2024 Meeting

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The Advisory Committee for the Asheville-Buncombe Air Quality Agency (AB Air Quality) met on February 15, 2024, at 4:00 PM via Microsoft Teams.

Members Present:

*Evan Couzo, Chair*  
*Keith Bamberger*  
*Ned Guttman*  
*Jim Neely*  
*Ichaya Dhungel*  
*Jay Haney*  
*Kevin Tipton*

Members Absent:

Staff Present: *Ashley Featherstone, Director; Kevin Lance, Field Services Program Manager; James Raiford, Permitting Program Manager; Betsy Brown, Air Quality Coordinator*

Others Present: Ava Ingle, Lenior Rhyne graduate student and former UNCA McCullough Fellow; Kelly Sheckler, EPA Region 4; Mia South, EPA headquarters; Emma Cady, Energy Star EPA Region 4; and Kayla Kern, Energy Star Coordinator EPA Region 4

1. Review and Approval of Agenda
2. Review and Approve August and October Minutes  
Dr. Couzo made a motion to approve the minutes from August and October 2023. The motion was seconded by Mr. Haney.  
The motion passed unanimously.
3. Special Presentation by Ava Ingle, UNCA Graduate, McCullough Fellowship, Energy Star Treasure Hunts/Audits at 4 local microbreweries  
Presentation  
Ms. Ingle graduated from UNC Asheville with a bachelor's in environmental studies and is currently working on her masters in sustainability studies. She gave a presentation about her undergraduate research project on discovering energy efficiency opportunities in Asheville's craft brewing industry. Her research was through the McCullough Fellowship at UNCA. Ms. Ingle partnered with the Agency, her community partner; Dr. Evan Couzo, faculty advisor; and Marshall Goers, an engineer with Waste Reduction Partners. The goal was to discover ways that

brewing can be more energy efficient and reduce the greenhouse gas emissions to the atmosphere.

The brewing process consumes a lot of energy. In the brew house, breweries burn natural gas to heat water to generate steam. Once the beer production process is complete, it must be refrigerated. Refrigeration uses a lot of electricity; the result of this high energy consumption is greenhouse gas emissions.

Ms. Ingle used the EPA Energy Star program Treasure Map which is designed specifically for microbreweries to find and identify energy efficiency improvements in four local microbrewery facilities. The treasure map is broken into different categories based on different areas in a brewery. Most of the opportunities that were found were in the hot water and steam systems and in the refrigeration areas. Wicked Weed, Cellarest, RAD, and Highwire participated. Wicked Weed is a larger brewery and had previously worked to improve their energy efficiency. The CO<sub>2</sub> emission reduction opportunities Ms. Ingle discovered would be the equivalent of removing 31 cars from the road a year if those opportunities were utilized. Since there are forty breweries in Asheville, there is potential for a more significant reduction. Highwire had the greatest opportunity; they could save around \$17,000 if they added insulation on the steam pipes and steam system.

The total savings discovered were 309,336 pounds of CO<sub>2</sub> emissions reductions and cost savings of \$25,827 per year. Participation in this project indicates that Asheville's craft brewing industry prioritizes sustainability. Each brewery had sustainable efforts in place already. Implementing energy efficiency measures into Asheville's craft brewing industry will help mitigate the effects of climate change.

EPA staff were very interested and excited about Ms. Ingle's project. The attendees discussed opportunities to expand this project across the county. There may be an opportunity for Ms. Ingle to expand this project into her master's thesis.

Ms. Featherstone noted the Agency is interested in continuing the program with summer internships each year. If the EPA had funds to support that it would be helpful to not have to take funds from the Agency budget to pay interns. She also wanted to promote Ms. Ingle's project and the participation of the local breweries. We can recognize the four participating breweries during Asheville Brewery Week in May and encourage other breweries to participate. She hopes to get some breweries willing to sign the Energy Star pledge and give more recognition if they take the pledge. A 10% energy reduction is the Energy Star pledge goal but is non-binding. Wicked Weed has been approached to sponsor the function. The Agency would provide certificates of participation or appreciation or something similar that the brewery could display.

There was discussion around what each brewery could do to realize energy savings based on Ms. Ingle's findings. It was noted that there might be grant opportunities to monetarily assist

the breweries with the costs involved in making those changes. Ms. Ingle made reports for each facility, and with their permission, said she would share each of them with those at this meeting.

Ms. Ingle is also considering expanding the brewery sustainability initiative to include wastewater concerns and possibly the consideration of pollinator gardens. The possibility of breweries adding solar panels to offset some of their energy use was also mentioned.

Ms. Featherstone mentioned that she had shared a draft news article with the committee. She welcomed any suggestions on the news article and how to strategize the function in May. Beer Week has social media networks which might be useful to get the word out to the public. EPA has been invited and may consider making a supporting statement, but that is a management decision. It was suggested that invitations could be made at the state level also.

#### 4. UNCA Project Updates

##### a. Purple Air and Raspberry Pi Sensor Project Updates

Dr. Couzo has not been able to find enough places as he had wanted to host sensors. Some people have concerns, possibly about what the results might be and repercussions from that. He and his students are deploying the sensors in stages. He is looking at churches as other location options. The sensors require electricity and Wi-Fi. Buncombe county libraries and parks were mentioned as possibilities. Ms. Featherstone could reach out to the library director. Fire stations were also mentioned as a potential and interesting site, perhaps in conjunction with CO monitors. One station is interested in idle reduction technology. It would be an interesting study to compare the CO and PM before and after the installation of idle reduction technology on their trucks.

Mr. Bamberger mentioned a Western Carolina student was doing a project with weather balloons and suggested that Dr. Couzo might want to work with her and add one of his sensors to one of her wet weather balloons.

#### 5. Agency Updates

##### a. EPA announces revised PM2.5 standard. Will result in more code yellow days.

<https://www.epa.gov/pm-pollution/proposed-decision-reconsideration-national-ambient-air-quality-standards-particulate>

The committee will receive updates at the next meeting.

##### b. Buncombe County Schools Electric School Bus Initiative Update on grant/rebate applications

The committee will receive updates at the next meeting.

##### c. Community Science Shelter and Sign/Display project with Nesbitt Discovery Academy-meeting later this month

The policy was updated based on comments from an earlier meeting. We hope to do an educational display at the sensor shelter and monitoring site. Ms. Featherstone reached out to CAPE who made suggestions about a public announcement. She has a meeting

planned with the Nesbitt Stem School about working in conjunction with the school since it is at their location. We would like to have a rollout with outreach to high school science teachers, colleges and the community. We can talk about this more at our next meeting.

6. Next meeting schedule: April 18, June 20, August 15, October 17, December 19

a. In person meetings for one or more?

The next meeting will be virtual on April 18.

It was suggested that maybe we have an in-person meeting during the summer, possibly at a brewery.

The meeting was adjourned at 5:10pm.