

**TOWN OF BOONE
SUSTAINABILITY, ECONOMICS AND ENVIRONMENT COMMITTEE
THURSDAY, APRIL 13, 2017
6:00 P.M.**

MEMBERS PRESENT:	Acting Chairperson Ben Scarboro, Vice-Chairperson Harvard Ayers, Quint David, Bailey Winecoff, Grace Cochran and Chris Gentry
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COUNCIL MEMBERS PRESENT:	None
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STAFF MEMBERS PRESENT:	Christy Turner, Senior Planner and Marlene Crosby Committee Secretary
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CALL TO ORDER

Vice-Chairperson Ayers called the meeting to order at 6 p.m.

ADOPTION OF AGENDA

Chairperson Scarboro made a motion, seconded by Member David to approve the agenda as written.

Vote:

Aye – All
Nay – None

The motion passed.

APPROVAL OF MINUTES

Chairperson Scarboro made a motion, seconded by Member Gentry to approve the February 9, 2017 meeting minutes as written.

Vote:

Aye – All
Nay – None

The motion passed.

ELECTION OF OFFICERS

Chairperson Scarboro nominated Member David for the position of Chairperson and Member Winecoff seconded the nomination. Member David accepted the nomination.

Chairperson Scarboro nominated Vice-Chairperson Ayers for the continued position of Vice-Chairperson. Vice-Chairperson Ayers accepted the nomination.

Chairperson Scarboro closed the floor for nominations.

It was the consensus of the committee members with the vote of five members to elect Member David for Chairperson and for Vice-Chairperson Ayers to continue to be the Vice-Chairperson.

Newly elected Chairperson David asked Member Scarboro to chair this committee meeting. Member Scarboro agreed to chair the meeting.

Discussion ensued on needing new members for the committee. Acting Chairperson Scarboro asked the Staff to provide at the next meeting the term dates for each committee member.

Member Cochran noted that she will be tendering her resignation to the committee after the May 2017 meeting.

Vice-Chairperson Ayers asked the committee to look for people who might be willing to serve on this committee to make it easier to obtain a quorum for the meetings.

Chairperson David talked about Mr. Lee Ball from Appalachian State University possibly being interested in being considered to serve on this committee. Ms. Christy Turner, Senior Planner noted that Mr. Ball's completed board application needs to be to the Town Clerks office by the May 5, 2017 Council meeting agenda deadline.

RENEWABLE ENERGY UPDATE

Chairperson David talked about the budget updates from a past committee meeting. He said the committee had talked about the percentage amount from the Town for renewable energy being approximately a little over one mega-watt. Vice-Chairperson Ayers said that Mr. Landon Whittington calculated about four mega-watts for the Town. It was the consensus of the committee to consult with Mr. John Ward, Town Manager and Ms. Amy Davis, Finance Director on the dollar amounts associated with the mega-watts which will include fuel and electricity. Member Gentry said he would research and present an update on this topic for the committee members at the next meeting.

Vice-Chairperson Ayers talked about the Jacobson's Solutions Project plan. He explained that it has to do with 100 percent of clean renewable energy in all energy sectors which includes transportation. He noted that if this happens in the Town of Boone, the Town will be the first in these types of governments in the country to do it. He noted that the goal is to get rid of fossil fuels.

Chairperson David talked about the City of Asheville preparing to go with a 20 mega-watt system located near their landfill.

Ms. Turner asked the committee members if they had given their 2017 budget request numbers to Town Manager, John Ward. Chairperson David said that Council Member Mizelle has already presented those numbers to Mr. Ward.

TOWN WEBSITE SUSTAINABILITY INFORMATION UPDATE

Acting Chairperson Scarboro asked for an update on this topic. Chairperson David said this website topic needs to be revisited and the past information on the dashboard needs to be brought back for further discussion.

Chairperson David talked about gathering information from the Town's annual reports. The committee will make a list of the items it needs from the Town and the Staff will provide it for them to review.

WINDMILL UPDATE

Member Gentry said he researched all of the companies that make windmills with over a one mega-watt capacity. He said in his research he found six companies that make mainly 1.5 to 2 megawatt windmills. He said at least four of the companies are in the United States. He noted that Goldwin has the most market share at this time.

Member Gentry said the windmill that was suggested for this area has a 2.1 megawatts capacity and can withstand Class Six winds. He said on average this type of windmill will cost between \$1,100 and \$1,300 per kilowatt or \$3.5 Million fully installed.

Discussion ensued on the wind speed at Howards Knob. Acting Chairperson Scarboro talked about this area being a difficult area to install a windmill. Member Gentry explained that he took the information that the companies gave him and added about 15 percent to them to allow for the extra wind speed at areas like Howards Knob.

Chairperson David said that the installation amount of the windmill is what the Town will spend on electricity anyway. He added that in the long run, it will save the Town money when they are able to use solar and wind technologies.

Member Gentry talked about if the Town could make more power than it could use, can the power be sold back to the Town. Chairperson David said not at this time but by the time the Town can build the wind turbine that information would be figured out.

Discussion ensued on the buses in the Town of Boone. Vice-Chairperson Ayers asked if the Town spends any money on the buses. Chairperson David said the Town spends around \$100,000 per year on the buses. Chairperson David noted that the Applacart is a separate entity and it is not part of a state system. It was noted to purchase a solar-powered bus costs around \$1 million dollars and to purchase a non-solar-powered bus costs around \$400,000 plus their fuel.

Member Gentry offered to do the research on the fuel used for the buses in the Town and the County. It was noted funding also comes from state and federal levels for the buses but mostly from Appalachian State University.

Vice-Chairperson Ayers told the committee that on April 13, 2017 the Town of Sylva, North Carolina joined both Watauga County and the Town of Boone as the third Town to pass the Jacobson's Solutions Project Resolution on clean renewable energy.

Discussion ensued on windmills having a peak generation time and wind speed. Member Gentry said he has a list of the wind curves based on the wind speed. Member David said there is a way to clock the speed of the wind curves which will disclose how much power that can be made based on the exact factors of the wind speed of a site.

Member Gentry said he would email the committee members the information he has on the estimates he has for the purchasing of windmills.

Vice-Chairperson Ayers suggested to the committee members to invite Dr. Dennis Scanlin to a future meeting to help the committee with any questions on wind.

Chairperson David said the City of Asheville in their carbon counting also included all of their employee's vehicles in their emissions testing.

Discussion ensued on who owns Howards Knob. It was noted that it is owned by Watauga County but a few parcels below it is owned by the Town of Boone. The committee members talked about discussing with the County Commissions the possibility of partnering with the Town on a windmill after they can provide the approximate dollar amount for it.

Chairperson David suggested do the same thing in the future with the Watauga County schools which is probably the largest publicly owned land group in the County. It was noted that most of the school buildings have flat roofs that are good for the adding of solar to them.

Member Gentry asked when the "class-six wind study" was done and where that information is located. He offered to look into this topic. Chairperson David said that Howards Knob fits into this category of windspeed and it has a lot of turbulence which destroys wind turbines. It was noted that the cost for repairs to the wind turbine would need to be accounted for.

Member Gentry said he would like to put together a packet of all of the information to be able to present to others, when the committee is ready to do so.

Discussion ensued on the heights of windmills. Member Gentry said they make a standard windmill that is about 85 meters to 100 meters tall and one that is recommended for the Town of Boone is 125 meters tall.

Chairperson David said he would resend an email that talks about a windmill in England that has stairs on the inside of it and an observation deck.

Acting Chairperson Scarboro asked if there was a climate-study group in the area that could help the committee with windmills. The committee talked about obtaining a weather station or anemometer to install on Howards Knob to track the turbulence.

Chairperson David said the more modern way to track the turbulence is to use Lidar which is laser equipment that measures the weather. Member Cochran said that she would try to contact someone to try to locate some Lidar equipment that the committee might could use to gain information on the weather and turbulence.

Member Gentry talked about contacting the FFA on this topic.

OTHER MATTERS BY COMMITTEE MEMBERS OR STAFF

Set agenda for the next meeting.

ADJOURNMENT

Chairperson David made a motion, seconded by Member Gentry to adjourn the meeting at 6:52 p.m.

Vote:

Aye – All

Nay – None

The motion passed.

Ben Scarboro, Acting Chairperson

Marlene Crosby, Committee Secretary