

TOWN OF BOONE
SUSTAINABILITY, ECONOMICS AND ENVIRONMENT COMMITTEE
THURSDAY, DECEMBER 14, 2017
5:30 P.M.

MEMBERS PRESENT: Chairperson Quint David, Vice-Chairperson Harvard Ayers, John Prickett, Benjamin Scarboro and Lee Ball

STAFF MEMBERS PRESENT: Christy Turner, Senior Planner and Marlene Crosby, Committee Secretary

CALL TO ORDER

Chairperson David called to order the meeting of the Boone Sustainability, Economics and Environment committee, held at the Watauga County Library – Meeting Room located at 140 Queen Street at 5:37 p.m.

ADOPTION OF AGENDA

Member Scarboro made a motion, seconded by Member Prickett to adopt the agenda as written.

Vote:

Aye – All
Nay – None

The motion passed.

APPROVAL OF MINUTES

Member Ball made a motion, seconded by Member Scarboro to approve the November 9, 2017 meeting minutes as written.

Vote:

Aye – All
Nay – None

The motion passed.

Motion and Vote:

Vice-Chairperson Ayers made a motion, seconded by Member Scarboro to suspend Roberts Rules for this meeting.

Vote:

Aye – All
Nay – None

The motion passed.

Chairperson David asked each person present at this meeting to introduce themselves. The following people were at the meeting: Mr. Rich Graham, Appalachian Voices, Ms. Loren Essex, Energy Savings Outreach Coordinator at Appalachian Voices, Mr. Marshal Ashcraft, Council Member, Mr. Jeremy Farrell teaches clean energy at Appalachian State University, Mr. Bucky Black founder of the renewable resource innovative design group enterprise which a non-profit that identifies waste streams in our community that could lead to economic development, Ms. Nancy LaPlaca, energy policy consultant at Appalachian Voices, and Ms. Judith Phoenix, Board Chairperson for Blue Ridge Women of Agriculture.

DISCUSSION ON THE ENERGY ACTION PLAN

Chairperson David said the energy action plan was one of the action items on the Boone 2030 Plan and the Sustainability Economics and Environment Committee is taking the opportunity to work on it now.

Chairperson David said that he has been reviewing the community greening development energy guide document from the Department of Energy that identifies stakeholders and energy baselines to help make specific energy goals.

Chairperson David explained the breakdown of energy used by each Town of Boone Department. He said the total cost of energy used is \$740,000 per year of electricity, \$173,000 per year of propane, \$246,000 per year for fuel or diesel which includes gasoline. He said if this was broken down into kilowatts, the Town would be using about four megawatts for fuel and gas which includes the Police Department usage.

Vice-Chairperson Ayers noted that it has been estimated that seven megawatts of power is needed to cover all of the Town's energy usage.

Chairperson David explained that the Town of Boone gets its funding based on the different areas of the Town. He said the Downtown Area gets its funding from the Municipal Service District taxes. He said the rest of the Town of Boone gets funding from regular property and sales taxes. He noted that the water and sewer department get its funding from the water and sewer department.

Chairperson David said the Town of Boone Waste Water Treatment Plant uses \$300,000 of energy a year.

Chairperson David explained that he would like to open the floor to the people at this meeting to hear their ideas on how they can help the Town of Boone reach their 100 percent renewable energy goal.

Discussion ensued on lowering the amount of energy usage per Town of Boone Department. Vice-Chairperson Ayers said by 2025 electric vehicles will reach parity. He said the hardware installation costs are estimated to decrease by 60 percent. He suggested backloading some of the requirements now to prepare for the future estimated decrease in installation costs. He mentioned that the need for charging stations would increase as more electric vehicles are being used. He suggested that any money saved through the energy savings be spent on charging stations.

Vice-Chairperson Ayers said the power companies pay back the Town of Boone per kilowatt of power being sold to the power companies.

It was noted that five megawatts are considered a qualifying facility. It was noted that with five megawatts you can connect to a transformer which usually takes 40 or 50 acres. It was also noted that North Carolina is the second largest in the use of solar.

Discussion ensued on solar farms. Vice-Chairperson Ayers said that it would cost about \$2.30 per watt for rooftop solar but in a solar field it would cost about \$1.90 per watt. As a result, it would be more feasible to use a solar field.

It was noted that it would be doable to use the Watauga County landfill for a solar field because the ground has settled there. It was noted that there is about 20 acres of space at the landfill which is a significant amount of land for a solar field. Mr. Farrell said that the university has been looking for a larger solar project for the students to become involved in.

Discussion ensued on House Bill 589. Ms. Nancy LaPlaca said there was a provision for universities in this bill that was passed. She said the distributing cap is one percent of the total retail load. She said the purpa process will become part of the RFP process which is limited to approximately three megawatts over five years.

Chairperson David said a couple of years ago the Town of Boone was able to make agreements with third parties to put solar on Town properties. He said the solar roof and charging station on Depot Street was installed as a result of a third-party agreement with the Town only paying about one-fourth of the cost of it.

Discussion ensued on the location of a solar field at the Watauga County landfill. Mr. Black noted that the Town of Boone has the potential to have a solar storage system because of the elevations in the Boone area. He suggested that a group of people continue long-term to look into solutions in technology in our current innovative economy. He said he would like to see an inventory of wasted resources that are not being used appropriately. Ms. Nancy LaPlaca said the utility companies have no incentive to use the stored energy. Mr. Black said he sees a system with more isolated micro-grids and independent self-sufficient models because it is going to be cheaper to produce electricity to get energy from other sources than to pay to someone to send it across the grid.

Chairperson David suggested breaking down each department of the Town and looking for ways to conserve energy. He suggested putting 10 kilowatts on the Fire Station because they are using \$90,000 of electricity a year.

Chairperson David said the Town of Boone Street Department is spending about \$150,000 on electricity. He talked about New River Light and Power changing over to LED lights.

It was noted that a strong conservation effort could reduce the need for eight megawatts to six megawatts of power. It was noted that it has been estimated that we need three-solar panels for each kilowatt.

Vice-Chairperson Ayers noted that he will be attending a meeting on Tuesday, December, 19, 2017 at 11 am with Mr. Jason Lingle and Mr. Dave Hollister from Asheville to discuss solar power.

It was noted that Blue Ridge Electric Company is doing a small scale solar garden. It was suggested that the Town ask them for tech support, when needed.

Vice-Chairperson Ayers said that we would not need storage because the utility companies will store it, if the Town sells the power to them.

Chairperson David talked about buying green energy credits. Vice-Chairperson Ayers said the Town will not depend on renewable energy credits because they are too expensive.

Discussion ensued on the budget for solar power. Chairperson David talked about acquiring the funds for solar power. Vice-Chairperson Ayers said the solar-power proposal recommendations will be updated with the cost of each solar item and presented to Council for their consideration.

Vice-Chairperson Ayers said that Mr. Michael Mann, a famous climate scientist from Pennsylvania State University says that we have three years before we have to completely give up one point five-degree centigrade rise as an option. It was noted that the Town does not want to go to two-point degree centigrade rise. Vice-Chairperson Ayers said that by 2020 that solar power needs to be moving forward.

Chairperson David talked about the Town of Burlington, Vermont that started their energy plan in 2006. He said this Town has a bio-mass waste processing facility that processes unused wood.

It was noted that thermal might be in some ways the largest budget item as it relates to BTU's. It was also noted that electricity is not necessarily the best way to dispense thermal energy.

Discussion ensued on Bio-Mass Waste. Vice-Chairperson Ayers said he can made the case that bio-mass is renewable but not that it is green. It was noted that bio-mass is the only type of energy that can sequester net carbon. It can take carbon out of the air and put it in the soil.

Chairperson David summarized ideas for the Mayor's Report. He said he would like to have more information for the carbon emissions report from each Town department where applicable. Vice-Chairperson Ayers noted that the Town changes five vehicles per year out of their vehicle fleet and we start with a couple of electric cars in the beginning.

Chairperson David talked about the efficiency study that was done for the Town's water treatment plant for the pump systems. It was noted that because the Town is located in the mountains, there will continue to be a need for pump systems.

Chairperson David talked about partnership and funding models that should be discussed for a proposed recommendation to Council before the budget hearings occur around February of 2018. He noted that the committee members will need to be thinking on ideas for the proposed

recommendations. He suggested looking at other Towns energy plans to see what they are doing that could be used in the Town of Boone.

Upcoming Council Member Sam Furgiuele asked if the proposed plans for the new Town Municipal Center included Sustainable features. It was noted that there has not been discussion yet on the new Town center construction plans. He also asked if solar panels can be installed in the floodplain. Ms. Christy Turner, Senior Planner explained that a structure has to be two feet above base flood level in the floodplain.

Chairperson David noted that if the Town's goal is 100 percent renewable energy, then new construction should have renewable energy on the construction plans.

OTHER MATTERS BY COMMITTEE MEMBERS OR STAFF

Set agenda for next meeting.

Chairperson David confirmed that the next SEEC meeting will be on Thursday, January 11, 2017 at 5:30 p.m. at the Watauga County Library meeting room located at 140 Queen Street.

AJOURNMENT

Member Scarboro made a motion, seconded by Chairperson David to adjourn the meeting at 6:45 p.m.

Vote:

Aye – All

Nay – None

The motion passed.

Quint David, Chairperson

Marlene Crosby, Committee Secretary