



Sustainability, Economics and Environment Committee

Regular Meeting

<http://www.townofboone.net/>

~ Agenda ~

Jane Shook
828-268-6960

Thursday, March 14, 2019

5:30 PM

Council Chambers

I. Call to Order

II. Adoption of Agenda

III. Approval of Meeting Minutes

February 18, 2019 Minutes

IV. Committee Name

V. Planning and Inspections Director Update

VI. Planning & Inspections Operations

VII. Other Matters by Commission Members or Staff

The North Carolina Clean Energy Technology Center (NCCETC) and NC Department of Transportation (NCDOT) are hosting public Zero Emission Vehicle (ZEV) Information & Input Sessions. <https://nccleantech.ncsu.edu/>

VIII. Adjournment

**TOWN OF BOONE
SUSTAINABILITY, ECONOMICS AND ENVIRONMENT COMMITTEE MEETING
THURSDAY, FEBRUARY 18, 2019
5:30 P.M.**

Members Present:	Chairperson Quint David, Vice-Chairperson Harvard Ayers, Benjamin Scarboro, Lee Ball, John Prickett and Nancy LaPlaca
Town Council Liaisons Present:	Sam Furgiuele and Marshall Ashcraft
Staff Members Present:	Marty Little – Planner and Marlene Crosby-Committee Secretary

Call to Order

Chairperson David called to order the Boone Sustainability, Economics and Environment Committee, held in the Town Council Chambers Room located at 1500 Blowing Rock Road at 5:32 p.m.

Adoption of Agenda

Member Scarboro made a motion, seconded by Member Prickett, to adopt the agenda as amended, with the adding of the following topics: Budget discussion and possible recommendation regarding the \$100,000 allocation and discussion on a possible recommendation that the SEEC review the New River Light and Power power purchase agreement.

Vote:

Aye – All

Nay – None

The motion passed.

Approval of Minutes

Member Scarboro made a motion, seconded by Vice-Chairperson Ayers to approve the January 10, 2019 meeting minutes with the following corrections as pointed out by Liaison Furgiuele: On page three in the first paragraph and first sentence, change Member Ball to Member LaPlaca; on page three in the second paragraph in the last sentence, change advise to prohibit; on page three in the third paragraph in the second sentence add “Ayers” between “Vice-Chairperson and to”; on page five in the sixth paragraph in the first sentence, add the word “of” between percent and “the”; on page seven in the first paragraph in the last sentence, remove “ask Mr. John Ward, Town Manager, to work on net metering” and replace with the following “to make a recommendation to Council to ask Mr. John Ward, Town Manager to work on net metering for

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the Town”; and on page eight, paragraph three, in the second sentence, change the word “conceivable” to “comparable”.

Vote:

Aye – All

Nay – None

The motion passed.

Energy Action Plan Discussion

Chairperson David began discussion on this agenda item stating that he would like to review the 2017 Sustainability goals to present to Council for budget purposes (permanently attached). He reviewed the Boone Municipal Energy Inventory completed on June 7, 2017 using the 2014 budget year approximate figures for electricity, NG propane, Gas or Diesel and the total of all energy costs. He reviewed the action steps: (1) estimate solar required for 100 percent goal, (2) estimate solar cost, (3) investigate funding sources, (4) implement budget action for funding source and (5) monitor progress with a yearly report presented at the Town budget hearing.

Vice-Chairperson Ayers explained that he had learned from Mr. John Ward, Boone Town Manager that the Town would rather purchase the solar from the New River Light and Power rather than try to build its own solar array.

Chairperson David talked about the greenhouse gas reduction plan. He said that Governor Cooper wanted a 40 percent reduction by 2025 in these type of gases. Chairperson David suggested that the SEEC propose this same reduction for the Town of Boone. Chairperson David said if we did convert every fossil fuel vehicle over to electricity, we would still use approximately 10 mega-watts of solar. Vice-Chairperson Ayers said his studies showed that we would use approximately seven-watts of solar. Chairperson David said he was perhaps being more conservative with his calculations of the mega-watts.

Member Scarboro asked Chairperson David if the Town built a municipal solar array in Watauga County, if this power could be transmitted over a power company’s grid, and what would they charge to do it.

Chairperson David said the SEEC needs to decide if the Town is going to be 100 percent renewable, if that means that every building and facility will be net zero at that location or would the Town purchase their solar from someone else. Vice-Chairperson Ayers explained that the Town is planning to purchase 500 megawatts from New River Light and Power and Appalachian State University already owns this property located on Hwy 321. Member Ball noted that in 2022 the public will be able to possibly purchase solar power from this same location, if there is enough left to purchase. He said that NTE can get solar from other places as well.

Discussion ensued on the cost of solar per kilowatt hour. Member Scarboro asked if the solar that is purchased from other areas will be charged to the Town at a premium price. Member

LaPlaca said that the price was presented at 3.5 cents per kilowatt hour at a previous meeting for the Town to purchase from New River Light and Power. She said that the price should be checked on because the cost of solar is going down as solar becomes more available. Member Scarboro asked if there was a solar farm in Watauga County or somewhere else and the Town used someone else's power to transport it to the Town, would the Town be trading for dollar to dollar or mega-watt for mega-watt. Member Scarboro said, if they are giving the Town solar power at twice the rate and they are taking the Town's power at the same rate then the Town ends up losing on it. Chairperson David said he is running into this issue with some other solar projects in Watauga County where Blue Ridge Electric will only pay five cents per kilowatt for what you generate and they turn around and sell it back to you at 12 cents per kilowatt. Chairperson David said if you want to reach net zero for your electric bill costs, you have to install almost twice as much solar as you actually use so it actually zeros out your bill. Member LaPlaca explained that there is a website called www.ratesofsolar.org that talks about this type of information. Member LaPlaca explained how the website works.

Discussion ensued on greenhouse gases. Member LaPlaca explained about greenhouse emissions. She noted that methane is worse than coal and coal is being replaced by natural gas. She referred to the IPCC's fifth assessment in their latest report that came out in 2014. She said the report has used 100 years for methane but now uses 20 years. She added that 20 years is 86x. Chairperson David asked if methane comes off of the Town's sewer plant. Member LaPlaca said yes. Chairperson David pointed out that the Town's waste water treatment plant is using 88 percent natural gas and asked if there was another way to reduce this cost while doing the greenhouse gas assessment. Chairperson David suggested researching this topic to try to reduce the cost. Liaison Furguele asked the SEEC why they were not making recommendations to Council to make this greenhouse gas topic the highest priority. Chairperson David said the SEEC will be addressing the topic of greenhouse gas but for now it has nothing to do with the Energy Action Plan. Member Ball suggested that the Town hire a consulting company to review the waste water treatment plant usage. Liaison Ashcraft suggested asking another municipality to help the Town with what they have done and what worked for them on this topic.

Discussion ensued on modifying the language to read "climate neutrality". Member Scarboro suggested using the climate neutrality language and Liaison Ashcraft agreed with Member Scarboro. Liaison Ashcraft said this modified language presents a larger goal and it carries more flexibility in terms of how we meet it. Member Ball said that climate neutrality is more along the lines of what they are trying to do on campus at Appalachian State University. Liaison Furguele explained that when we focus only on renewables, it is a harder goal to meet. Liaison Furguele said that to replace the trucks over the next eight years is non-realistic and would need to be staged due to the expense of them.

Chairperson David asked the SEEC if they had any additional energy action plan possible recommendations that could be forwarded to the Council. Member LaPlaca suggested adding a section in the proposed plan that shows the damages from fossil fuels from various studies to help the public understand them. Chairperson David suggested adding an appendix or table that shows the damages.

Discussion ensued on the total energy cost. Chairperson David talked about the action step on investigating funding sources and the Town Staff should investigate 62 cost share with utility rates. Liaison Furguele asked if this would raise the water rates by 62 percent in the Town. Chairperson David explained that 62 percent of the energy costs in the Town is from the water utility.

Chairperson David explained that if the Town's goal is 100 percent renewable energy, the Town has to build it or partner with someone to achieve it.

Liaison Ashcraft said he was not in favor of asking the Town staff to investigate ways to fund an investment for a Town owned solar array because he said he thought the SEEC has covered the important part, which is to partner with NTE and BREMCO for an expanded purchase.

Member Scarboro said he felt it was important to keep the water bond and general fund bond actions because ultimately, barring a natural disaster, the Town of Boone will be around for 50 years and more. He pointed out that the Town may not be using the same providers in 50 years. Chairperson David said that this type of discussion would be a part of resiliency planning. Member Ball said if the Town did face some crises the Town might want to purchase a large battery placed near the solar facility help get through the crisis.

Discussion ensued on the possibility of raising funds for solar projects. Liaison Furguele said he did not believe that the Council would raise taxes in the Town to help fund solar projects. Vice-Chairperson Ayers said that he fully intends to raise some funds through the Federal Transit Administration. Vice-Chairperson Ayers said he believes the FTA would support the goal of the Town to help purchase electric vehicles.

Budget Discussion

Discussion ensued on making a possible recommendation to Council for electric vehicles. Vice-Chairperson Ayers referred to the handout (permanently attached) called "The First on the Ground Work of The Boone Clean Energy Project" and explained to the SEEC that he felt that this recommendation should be voted on and approved by the SEEC in this meeting. The recommendation was for the Town to purchase two electric cars and two electric bicycles that totaled \$67,600.00 which is part of the \$100,000.00 that Council previously approved. Member Ball noted that he does not think that the energy action plan is ready to be presented to Council. Member Ball felt the energy action plan needed more discussion. Chairperson David said if the Council does not want to approve funds for the 100 percent renewable energy goal, the SEEC should withhold making the vehicle recommendation to Council. Vice-Chairperson Ayers said it would be a big mistake to not make the recommendation to Council because the money has been approved. Liaison Furguele explained that with this proposed recommendation, the SEEC has an opportunity to get the Police Department on board and get some experience with the hybrid vehicle. Liaison Ashcraft agreed with Liaison Furguele to start making some headway and begin to reduce the carbon footprint.

Discussion ensued on the various plans that are being worked on by the SEEC. Liaison Furguele noted that there are three plans that need to be addressed, which are the energy action plan, climate neutrality, and perhaps adopting a formal resiliency plan. He noted that as far as he knows, the Town does not have a disaster plan other than the placement of exit signs. Member Ball noted that Appalachian State University will be working on their climate action plan with a resiliency component which includes the energy action plan all under one umbrella.

Member Ball asked Chairperson David if we should table the topic of the energy action plan and focus on the recommendation for the electric vehicles. Chairperson David explained that the Council approved the SEEC to focus specifically on the energy action plan goals (permanently attached). Chairperson David said if the Council wants to release the SEEC from that topic, he would like to talk about other things. Vice-Chairperson Ayers reminded the SEEC that the Council approved the proposal for the \$100,000.00. Liaison Furguele explained that the Council took action at the budget retreat. He said it was stated at that time when it was proposed, and explained by the Town Manager, that this would be something that the Council would be interested in pending review by the SEEC. Liaison Furguele said if the SEEC accepted the idea, then the Council would prepare to move forward with the \$100,000.00. Vice-Chairperson Ayers said the SEEC approved the \$100,000.00 at the May 2018 SEEC meeting. Vice-Chairperson Ayers further stated that he felt the SEEC should discuss the vehicle recommendation at some point in this meeting.

Vice-Chairperson Ayers pointed out that the \$100,000.00 was approved by the Council for specific items.

Discussion ensued on the breakdown of costs for the electric vehicles. Vice-Chairperson Ayers said that the SEEC members need to decide if they want to make the recommendation to Council for the electric vehicles (permanently attached). Chairperson David said that electric vehicles were not part of the short-term or long-term goals that the SEEC set in 2017. Chairperson David said the electric vehicles seem to be something that Vice-Chairperson Ayers' group has proposed on their own. Vice-Chairperson Ayers said that he worked with Mr. Ward on the electric vehicles the whole time. Chairperson David pointed out that the SEEC has no current goals for electric vehicles.

Chairperson David pointed out that it was written in the short-term goals to do another public-private solar project like the one on Depot Street.

Chairperson David explained that the SEEC made a recommendation to Council for \$200,000.00 and the Council approved the allocation of the \$100,000.00, and it was up to the SEEC to discuss converting Town vehicles from fuel to electric. Vice-Chairperson Ayers explained that the SEEC made a recommendation to Council in May of 2018. Liaison Furguele said the Council has agreed that the \$100,000.00 be protected until there are concrete proposals of how to allocate it in times of a tight Town budget. He further explained that the proposal by the Town Manager was preliminarily accepted by the Council to use a portion of the money, if the SEEC is in agreement with the vehicle purchase which is noted on the last page of the handout. Liaison Ashcraft

confirmed that the Council is interested in recommendations from the SEEC on the use of the \$100,000.00.

Chairperson David said there are other areas that can be argued that are sustainable areas that are not necessarily part of the \$100,000.00 budget. He said the money could be spent on sidewalks or on the greenway.

Vice-Chairperson Ayers talked about moving ahead with the previous approval by Council. Chairperson David said the previous goals that were approved were solar first and EV second. Chairperson David said if the SEEC is going to budget the \$100,000.00, does the SEEC want to move forward with what the SEEC recommended previously, or go with the \$67,600.00 that is being recommended for electric vehicles.

Vice-Chairperson Ayers explained that Mr. Ward has arranged to get 500 mega-watts of solar power without an initial cost up front. Member Ball said when the energy is available to the Town, there is likely to be an additional cost to the Town at that time.

Member Ball asked if the proposed hybrid vehicles are vehicles that the Town already needs. Liaison Ashcraft explained that the Town has one vehicle that was damaged and the Town will receive some insurance money for it and it will probably need to be replaced in the current year. Liaison Ashcraft further explained that there are no funds set aside for this vehicle replacement. Member Ball asked what the Ford Fusion Hybrid would be used for. Liaison Furguele said it would be used for trips for administration staff. Liaison Furguele also explained that the Ford Fusion Hybrid Police Responder Sedan would be assigned to the Downtown Boone police officer and it would be parked in front of Town Hall. Liaison Furguele said there would be signage attached to both of the hybrid vehicles. Member Ball said that the SEEC had discussed supporting an electric vehicle and asked why that is not in the proposal. Vice-Chairperson Ayers said the EV's are a lot more expensive. Liaison Furguele said he thought it was a range issue. Member Ball said the range for an EV is around 300 miles but it would need to be charged while on long trips. Liaison Ashcraft pointed out that it is not a practical option for the Police Department to have an EV due to all of the electronics in the vehicles and because they take their vehicles home which causes charging issues. Liaison Furguele pointed out that the Police Department also has issues with sharing police vehicles because of the complexities of the equipment change outs due to all of the electronics. Liaison Furguele noted that the idea is to try to replace two Town vehicles in a time of tight Town budget constraints. Liaison Furguele agreed that the SEEC should only be discussing the difference in the costs of the vehicle. Liaison Furguele explained that the SEEC could support purchasing some hybrids and it would get Staff used to not using gasoline powered vehicles. Liaison Furguele said this could be a small step in beginning to convert the Town's large fleet away from fossil fuels.

Chairperson David reviewed the previous approved goals that covered installing bike shelters and maintenance stations in public locations. He asked the SEEC if they wanted to recommend a budget amount for these goals. Liaison Ashcraft added that the Police Department wants to get all wheel drive SUV Hybrid vehicles with police packages, when they become available.

Member Prickett asked if the \$100,000.00 is not used fairly quickly, if it will it be moved somewhere else. Liaison Furguele said the Council set this amount of money aside and the Council can change it from year to year. He said at this time the money is intact. He also explained that this is an election year and in November and after the election, there could be new Council members that possibly may not support the allocation.

Discussion ensued on the Boone Clean Energy Project. Member Ball asked about the terminology of the last line of page two in the handout regarding the \$32,400.00 and the Boone Clean Energy Project. Member Scarboro said the Boone Clean Energy Project is explained in the April 2018 meeting minutes. Vice-Chairperson Ayers explained that the \$100,000.00 was allocated for things in the Boone Clean Energy Project. Chairperson David asked Vice-Chairperson Ayers if this project included solar first and EV second. Member LaPlaca explained that with solar it has changed dramatically to the point that no one wants to own it anymore, when you can locate a power purchase agreement and just purchase the energy.

Liaison Furguele explained that at the time that the Council set aside the \$100,000.00 they discussed the charging stations and the Town fleet. He said at that time the New River Light and Power power purchase agreement was not known about by the Town.

Chairperson David pointed out that there is a motion on the floor from an email that was not discussed at the last SEEC meeting. Member LaPlaca stated that she wanted to move forward with Vice-Chairperson Ayers' recommendation.

Member Ball suggested changing the recommendation to read that the remaining \$32,400.00 is to be used for Boone clean energy projects which allows for more flexibility. This was accepted as a friendly amendment. Member Scarboro read from the April 2017 SEEC minutes which stated that in the first year, a solar project would be completed and one electric vehicle would be purchased. Member Scarboro stated that he supports the purchasing of two electric vehicles, but he does not like purchasing these vehicles out of money that was originally allocated for clean energy projects. Member Scarboro talked about proposing the amount of \$16,000.00, which is the difference between the police and non-police car package amount. Vice-Chairperson Ayers disagreed with this proposed amount because he felt it might not be approved by Council if the \$67,600.00 was not included in the recommendation. Member Scarboro said he looked at the proposal as incentivizing rather than replacing someone's infrastructure.

Chairperson David said he wanted to make it clear that he is glad that the Town has the \$100,000.00 to work with; but if the SEEC does not want to discuss the previous SEEC short-term or long-term goals, and they want to move completely to the electric vehicle discussion, he is alright with it. He noted that there has been no discussion of the previous short-term or long-term goals at this meeting.

Liaison Furguele said if the SEEC supported the proposed recommendation, he suggested accepting the proposed amounts now, but in the future, pursuant to the Boone Clean Energy

Plan, add language to allocate more than the differential between the cost of the future electric-hybrid vehicles and the non- electric-hybrid vehicles. This was accepted as a friendly amendment.

Discussion ensued on changing the recommendation of the Town vehicle. Liaison Furguele said the Council has preferred that the purchase price of \$27,000.00 be used for a plug-in hybrid for the administrative use vehicle. He suggested that the SEEC recommend \$35,000.00 of the \$100,000.00 for the vehicle with the police package. Member Scarboro was in support of recommending the plug-in hybrid vehicle.

Motion and Vote:

Vice-Chairperson Ayers made a motion, seconded by Member LaPlaca, that the Sustainability, Economics and Environment Committee make a recommendation to Council for the purchase of one plug-in hybrid-electric vehicle costing \$27,000.00 that does not include the police package and one plug-in hybrid-electric vehicle that includes the police package for \$35,000.00, and two hybrid-electric bicycles costing \$5,600.00, for a total of \$67,600.00, which will come from the \$100,000.00 budget allocation from the Town's 2018-2019 fiscal year budget, with the remaining \$32,400.00 going toward future sustainability projects.

Vote:

Aye – All

Nay – None

The motion passed.

Discussion ensued on the future use of the \$32,400.00. Member Ball pointed out that due to the rapidly changing solar market, the SEEC might need to change what this amount of money should be spent upon in the future. Member Ball said this money might be used on other things like the New River Light and Power power purchase agreement, total electric vehicle, or other possible things. Vice-Chairperson Ayers said that these types of things fall under the Boone Clean Energy Project. Member Ball explained that he had much rather just pay the difference in the cost of the conventional vehicle and the clean energy vehicle.

Discussion ensued on possible budget recommendations. Chairperson David reviewed the budget recommendations for the short-term and long-term goals (permanently attached). He said he had prepared a preliminary budget if the SEEC would want to discuss them at this meeting. The items that Chairperson David reviewed from the goal list were installing a bike shelter and maintenance station in a public location, curbside composting, winters farmers market, education components and managing carbon emissions. He discussed possibly using the \$32,400.00 for some of these goals.

Member Scarboro talked about the short-term goal of the bicycle shelter and maintenance station. He is moving forward with this goal that the Council has already approved.

Mr. Little noted that the Earth First Friday recommendation is going to the next Council meeting for their consideration and approval.

Liaison Furguele said an allocation was made to the Watauga County Food Council to come back and make recommendations for developing a local food plan.

Member Ball talked about the curbside composting and needing the County's help. He said the University is encouraging the County to start a composting program at the landfill. He said that currently there is not a hauler for it.

Member Ball said at the next meeting, he wanted to talk about a bike-share program. He said the University is researching the Gotcha company. Chairperson David said this topic could be added to the next meeting agenda. Mr. Little informed the SEEC that perhaps Council would want the Transportation Committee to review this topic.

Discussion ensued on moving the budget amount of \$2,000.00 for the bike shelter maintenance station into a charging station. Member Ball suggested installing the charging station at the Boone Town Hall location.

Discussion ensued on moving forward with the budget items from the SEEC approved plan from August of 2017. Member Ball said that due to the small budget amount, the project would need to be small. Chairperson David said the project could be similar to the Depot Street solar project. Member Ball said the money could be used for a consultant to review the Town's water sewer treatment plant.

Discussion ensued on the \$32,400.00, which would be the remaining money from the \$100,000.00. Member Ball suggested further discussing, and being specific on, what they are proposing for the remaining money from the \$100,000.00 at the next meeting. Member Furguele suggested not using the money for funding of the Earth Day Celebration because last year the Council funded it separately.

Committee Name

Chairperson David suggested tabling this agenda item to the next meeting. It was the consensus of the SEEC members to table this agenda item to the next meeting.

New River Light and Power Power Purchase Agreement Discussion

Liaison Furguele encouraged the SEEC to make a recommendation to Council regarding the New River Light and Power power purchase agreement, that the SEEC to review it when it becomes available.

Motion and Vote:

Member Scarboro made a motion, seconded by Vice-Chairperson Ayers, to recommend to the Town Council that Council direct the SEEC to review and provide recommendations on the New

River Light and Power power purchase agreement for the proposed two-acre solar site located in Watauga County prior to Town Council reviewing the agreement.

Vote:

Aye – All

Nay – None

The motion passed.

Other Matters by Committee Members or Staff

Discussion ensued on the agenda items for the next meeting. Mr. Little pointed out that the Town's Transportation Committee could be a part of the discussion on the Bike Share topic. Chairperson David suggested the following agenda items for the next meeting: Energy Action Plan, Greenhouse Gas Discussion, the Remaining Budget Items Discussion, and the Committee Name Discussion.

Adjournment

With no other matter to discuss, Member Ball made a motion, seconded by Member Scarboro to adjourn the meeting at 7:42 p.m.

Vote:

Aye – All

Nay – None

The motion passed.

Quint David, SEEC Chairperson

Marlene Crosby, Committee Secretary

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