

MEMO TO THE CARRBORO BOARD OF ALDERMEN FROM THE CARRBORO ENVIRONMENTAL ADVISORY BOARD (EAB) FOR THE BOARD OF ALDERMEN (BOA) TO ADVISE ON BOARD STRUCTURE.

Forward

Climate change has increased the global average surface temperature by more than 1.00 degree Celsius (1.8 degrees Fahrenheit) since 1880.

Climate change is expected to increasingly impact North Carolina's temperatures, precipitation and sea level with harmful consequences in coming years.

Climate change and global average temperature increases are primarily due to human-caused fossil fuels emissions, including coal, oil and natural gas, according to the United Nations Intergovernmental Panel on Climate Change, National Academy of Sciences, American Meteorological Society, United States Environmental Protection Agency, United States Department of Defense, and numerous other leading scientific, academic and governmental authorities both in the United States and internationally.

A final agreement of the United Nations Conference of Parties (COP21), which included the United States and a total of 195 nations, was reached in Paris, France on December 12, 2015, that states the aim is to "holding the increase in the global average temperature to well below 2 degrees Celsius above preindustrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius above preindustrial levels" and entered into force on November 4, 2016.

Scientists have concluded the concentration of carbon dioxide, the leading greenhouse gas, in the Earth's atmosphere is often over 410 parts per million (ppm) and will likely stay above this level for the indefinite future for the first time in millions of years.

Eighteen of the nineteen hottest years on record have occurred in the twenty-first century with 2016 the hottest year on record, 2015 the second hottest, 2017 the third hottest and 2018 the fourth hottest.

An increase in the global average temperature is having and will continue to increasingly have major adverse impacts, if not stopped by eliminating the use of fossil fuels, on both the natural and human-made environments due to longer, more intense heat waves, prolonged droughts, spread of infectious diseases, rising sea levels, ocean acidification, wildfires, and more intense and frequent extreme weather events.

These physical effects are expected to lead to water scarcity, food insecurity, increasing numbers of refugees, increased poverty, and the mass extinction of species.

Studies completed by the International Monetary Fund (IMF), the Risky Business Project, Duke University, and others point to the severe economic costs of climate change and continuing use of fossil fuel, estimating billions of dollars a year in costs nationally and trillions globally.

Leading economists, policy experts, and business leaders conclude that transitioning to a clean energy economy available for all would create millions of green jobs nationally, improve health

and living standards, and boost economic growth in coming years.

Low-income communities and communities of color in North Carolina and the United States are inordinately exposed to pollution, that causes serious health problems such as cancer and asthma, from fossil fuels, including the dirtiest coal-fired power plants which produce coal ash, and need to be empowered and have access to educational tools and an awareness of climate issues.

A Stanford University and University of California-Berkeley study concludes the United States energy supply could be based entirely on renewable energy by the year 2050 using current technologies and 80% renewable energy by 2030 while creating numerous green jobs.

Municipalities, organizations, businesses, and academic institutions throughout the world have set a goal to achieve carbon or climate neutrality by 2050 or earlier.

Some communities in California, in Iowa, and in Vermont currently generate over 90% of their electricity from renewable sources.

Over 1,000 mayors have joined the U.S. Conference of Mayors Climate Protection Agreement since 2005 to commit to significantly reduce carbon emissions in their cities to combat climate change.

Over 600 American colleges and universities have made a commitment to reduce greenhouse gases, including Appalachian State University, Blue Ridge Community College, Carteret Community College, Catawba College, Central Carolina Community College, Davidson College, Duke University, Elizabeth City State University, Fayetteville State University, Guilford College, North Carolina Central University, Queens University of Charlotte, Southeastern Community College, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, University of North Carolina at Greensboro, University of North Carolina at Pembroke, Wake Technical Community College, and Warren Wilson College.

North Carolina installed 1,140 MW of solar electric capacity in 2015, ranking it second nationally; nearly \$1.7 billion was invested on solar installations in North Carolina, a 159% increase over the previous year; there are currently more than 200 solar companies at work throughout the value chain in North Carolina, the state companies employing some 6,000 people; North Carolina ranks third in the nation in installed solar capacity, enough to power 260,000 homes. solar photovoltaic system prices in the U.S. have dropped by 66% since 2010.

North Carolina has more offshore wind energy potential than any other Atlantic state.

The Global Carbon Project predicts there will be a 2.7 percent rise in global carbon emissions in 2019 compared with a 1.6 percent increase last year and this increase in emissions constitutes a record high, dashing hopes that such pollution could finally be coming to a standstill.

The Fourth National Climate Assessment, released in November, 2018 reports global carbon emissions that threaten higher temperatures, stronger storms, increased flooding and longer, more intense droughts.

The IPCC Special Report on Global Warming of 1.5C reports drastic consequences with current levels of greenhouse gas emissions but affirms that these impacts could be minimized by

developing the political will to cut greenhouse gas emissions 45% by 2030 and to nearly zero by 2050.

The Town of Carrboro Board of Alderman, on July xx, 2019, in response to the climate emergency as outlined above, passed a “Resolution Regarding Climate Action Goals and Budget Plan” which added additional duties to the charge of the Environmental Advisory Board (EAB) and staff to “to recommend changes as may be needed to achieve goals defined in the 2009 climate resolution cited above, recognizing the latest science and historical responsibilities for climate change;” “to identify substitutions to or additional activities or projects and their estimated CO2 reductions;” and “recommend such changes to include within the Town’s Climate Plans, in order to more effectively reach the Town’s climate reduction goals, while also recognizing principles of racial equity and climate justice.”

For approximately the last year, the EAB has had difficulty in meeting its basic function of performing development reviews within reasonable meeting lengths and without special meetings.

The EAB dedicated three additional meetings (June 19, July 25 and August 22, 2019) to climate change without performing legacy EAB functions such as design review, and utilized the entire meetings just for that topic. The meeting on September 5, 2019 was almost completely taken up by Joint Review and drafting design review comments and Climate Action Plan discussion had to be deferred.

The implementation of the community input and action plans of Community Climate Action Plan (CCAP) and Environmental and Climate Action Plan (ECAP) will require additional duties on EAB members.

The EAB has developed several alternative structures and meeting schedules including, but not limited to:

- a) Break the Board into two separate boards – one focusing on honing and implementing the ECAP and CCAP and the other focusing on the legacy EAB functions of design reviews, with a possibility of one or more liaisons between boards; or
- b) Increase the size of the EAB and implement a subcommittee on Climate Change; or
- c) Increase the meeting length and frequency as well as investigating methods and procedures for the EAB to work more efficiently.

Additional meetings or lengthened meetings would require additional staff resources.

There are concerns on the EAB, and based on preliminary polling, almost all members would want to go to a separate climate board, leaving the EAB unable to hold a quorum for design reviews.

Some of the existing EAB members have family or other outside responsibilities that could limit their participation in both boards or a subcommittee.

Due to the labor-intensity of implementation of the plans may need for small financial incentives from grants or general funds to entice for volunteer coordinators to implement the community action portions of the CCAP.

Conclusion

The EAB requests guidance from the Board of Alderman with respect to:

- 1) Consideration of creating a new Board which conforms with Town Code and applicable Town procedures for implementation of the ECAP and CCAP
- 2) Input concerning Board preferences for EAB organization going forward