DOCKET NO. E-100, SUB 113

TESTIMONY OF DR. MICHAEL G. NOLL ON BEHALF OF
WIREGRASS ACTIVISTS FOR CLEAN ENERGY

PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND JOB TITLE.

My name is Dr. Michael G. Noll and my business address is 2305 Glynndale Drive, Valdosta, Georgia 31602. I am an Associate Professor for Geography at Valdosta State University in Valdosta, Georgia.

PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL EXPERIENCE

I received a Ph.D. in geosciences from the University of Kansas in Lawrence, Kansas in 2000. Since August 2000 I have been a faculty member in the Department of Physics, Astronomy and Geosciences at Valdosta State University in Valdosta, Georgia. I have served as President for Wiregrass Activists for Clean Energy ("WACE") in Valdosta since 2009.

PLEASE DESCRIBE YOUR RESPONSIBILITIES WITH WACE

WACE is a chapter of the Blue Ridge Environmental Defense League (BREDL) and a 501(c)(3) non-profit organization which was founded in 2009 in response to a proposed 40MW biomass plant for our community. WACE is a citizen group of all ages and includes parents, retirees, educators, business owners, church leaders and government officials from Valdosta and Lowndes County, Georgia. As co-founder and President of WACE I have gained considerable knowledge of biomass plants as it relates to their fiscal, environmental and health risks.

As President of WACE I have also had the privilege to work closely with other communities in Florida and Georgia who have been, or still are, targets for biomass facilities, ranging from Port Saint Joe, Florida, to Wadley, Georgia. Moreover I have had many opportunities to directly discuss the nature of biomass incineration with medical professionals and organizations like the American Lung Association.

HAVE YOU TESTIFIED BEFORE THE COMMISSION PREVIOUSLY?

No.

WHAT IS THE PURPOSE OF YOUR TESTIMONY?

As a geoscientist and President of WACE I am compelled to comment on the general nature of biomass incineration and particularly its fiscal, environmental, and health risks.

PLEASE DESCRIBE YOUR CONCERNS ABOUT BIOMASS POWER PLANTS

My concerns about biomass plants can be summarized as follows:

- Biomass Plants Bear Significant Health Risks

  Biomass plants are dirtier than coal firing plants. There is not one scholarly publication from within the medical profession which states that biomass plants are safe. Instead the testimony is overwhelming that air pollution coming from biomass plants in the form of nitrogen oxide, sulfur dioxide, carbon monoxide, particulate matter (PM), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) bear significant health risks for our communities. To quote from a letter I received in December 2010 from June Deen, State Director of the American Lung Association in Georgia:

  "We have significant concerns regarding [biomass plants] and the potential effects the pollution it generates could pose for children, older adults and at-risk groups, like those suffering from lung diseases …, as well as people with diabetes and heart disease…. Particulate matter (PM) emissions are the most significant health threat from biomass power plants…. Specifically the findings [by the Environmental Protection Agency of 2009] concluded that particulate matter: causes early death …; causes cardiovascular harm (e.g. heart attacks, strokes, heart disease, congestive heart failure); is likely to cause respiratory harm (e.g. worsened asthma, worsened COPD, inflammation); [and] may cause cancer …"[1]

  Similar condemning statements about the dangers of biomass have been made by the American Heart Association, the American Cancer Society and dozens of medical associations throughout the country.[2]

[1] The full text of this letter can be found at http://www.wiregrass-ace.org/linked/ala_in_georgia_on_biomass.pdf

[2] See our "resources" webpage at http://wiregrass-ace.org/wace_004.htm

- Biomass Plants Waste Enormous Amounts of Water

As has been reported nationwide, large areas of the United States have been experiencing record drought conditions for several years now.[3] Consequently harvests either show volumes well below average or are failing completely. To keep pushing for parts of the energy sector which are in direct competition with our agricultural sector is both irresponsible as well as unsustainable. To understand just how thirsty biomass plants are: the proposed 40MW plant for Valdosta, Georgia, would have used 800,000 gallons of water daily for cooling purposes.[4]

One should note that solar and wind power plants are much better renewable energy alternatives as they neither pollute our air nor use water for their operation.

- Biomass Plants Are Risky Investments

The landscape of the energy sector has changed dramatically in the last couple of years so that biomass plants need to be reevaluated from a general economic point of view and not just in the context of our current economic crisis. Prices of solar panels, for example, have dropped to less than a third of what their price tag still was in 2007. Thus it is no surprise that the Wall Street Journal already reported in October 2010 that "high costs have pushed biomass power to the sidelines in the U.S."[5] which begs the question why some are still pursuing such economically risky ventures. The reason quite simply is that biomass plants rely heavily on federal stimulus funds and tax credits or are at times even financed via industrial revenue bonds. However, once federal funds dry up and/or the reality of an increasingly competitive energy sector settles in, biomass plants are set to fail and

- Biomass Plants Contribute to Global Warming

In the light of persisting drought conditions in the U.S.[5] and repeated reports of countless heat records[6] at home and abroad the fact cannot be ignored that biomass plants contribute to

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[3] For information on current drought conditions consult US Drought Monitor at http://droughtmonitor.unl.edu/

[4] For general information on the freshwater use by US power plants see: http://www.ucsusa.org/assets/documents/clean_energy/ew3/ew3-freshwater-use-by-us-power-plants.pdf

[5] See http://www.nytimes.com/2012/08/24/us/midwest-water-wells-drying-up-in-drought.html?_r=2&hp

global greenhouse gas emissions and thereby to global warming.[7] The notion that biomass plants are "carbon neutral" has been debunked quite successfully by now and among as early as in the 2010 Manomet Study.[8] Thus carbon neutral forms of energy production like solar and wind (in combination with energy efficiency and energy conservation measures) are the only true alternatives to counter current climatological trends as evidenced by our weather extremes, increasing global temperatures, shrinking ice sheets[9], and rising sea water levels.

WHY IS IT IN THE PUBLIC INTEREST FOR THE COMMISSION TO ELIMINATE THE SET-ASIDE AT THIS TIME?

From the point of view of a geoscientist who not only lectures on the principles and roots of global warming but who also has a thorough understanding of the nature of biomass incineration such a delay would do nothing to change the simple facts that biomass plants are economically risky, environmentally unsustainable, and in terms of the general public health enormously dangerous projects which do not deserve such an action.

WHAT ACTION WOULD YOU HAVE THE COMMISSION TAKE REGARDING THE HOG AND POULRTY WASTE SET-ASIDE REQUIREMENTS?

In the light of my comments I respectfully request that the Commission deny the motion to set-aside the hog and poultry waste requirements.

DOES THIS CONCLUDE YOUR TESTIMONY?

Yes.

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[6] Refer to http://www.reuters.com/article/2012/07/03/uk-usa-weather-records-idUSLNE86200R20120703

[7] Refer to http://sciencefriday.com/segment/08/03/2012/changing-views-about-a-changing-climate.html

[8] See http://www.manomet.org/sites/manomet.org/files/Manomet_Biomass_Report_Full_LoRez.pdf

[9] See http://www.climatecentral.org/news/new-report-most-warming-in-antarctic-human-caused-14854/