Climate Change Maryland

Public Meeting Comment Sheet
Discussion on the Greenhouse Gas Reduction Act Plan

Thursday, August 6, 2015
Largo, MD

Instructions:

Please use this form to provide any comments you have on the state's progress on addressing climate change and Greenhouse Gas Reduction Act Plan that will be up for renewal in 2016. Once you have completed the sheet, please place in the comment box or mail or email to:

Mr. Brian Hug
Maryland Department of the Environment
1800 Washington Blvd
Baltimore, MD 21230
Email: climate.change@maryland.gov

Please submit comments by Friday, August 28, 2015

bonniebick@gmail.com

Comments Submitted By:
Name: Bonnie Bick
Representing: Sierra Club Southern MD Group
Address: 7601 Oxon Hill Rd, Oxon Hill, MD 20745
Comments: One of our first steps should be STOPPING negative practices. Protection of Maryland's forests is one way. Would be to create an inter-county TDR program — Support the RED LINE STOP COVE POINT! STOP FRACKING HAVE A MORITORIUM ON FRACKING — GET RENEWABLE MORE GET COMBUSTIBLES OUT OF THE FOREST!
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Maryland

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Comments Submitted By:

Name: Art Fubel

Representing: OFA and Tikvat Israel Synagogue

Address: 14120 Flint Rock Rd., Rockville, MD

Comments: As I’ve found out mitigating committee programs are readily accomplished. At Tikvat Israel we installed solar panels producing 70,000 kWhr/year. Financing by an investment company in South Carolina and will replace fluorescent tubes with LED tubes with a 4-year payback after empower MD rebates. The lighting retrofit will reduce electric load by 70,000 kWhr a year, it is as productive as the solar panels at 1/6 the cost.
Good evening, my name is Nathaniel Thomas, pastor at the Forestville New Redeemer Baptist Church. Thank you for the opportunity to share our thoughts regarding why our political leadership should continue to support the “Maryland’s Greenhouse Gas Reduction Plan”.

It has become very clear that our environment is suffering due the ignorance or disrespect in having the right attitudes towards the nature of this earth. God placed us here, gave us charge therefore he expects us to take care of it.

It is becoming more and more apparent that some are more interested in constructing large buildings in the name of economic development rather than conserving our lands for animal life and establishing community development. All the problems that exist in our air and water has been cause by man.

It has been brought to our attention that Maryland is extremely vulnerable to the impacts of climate change. The following information is as follows:

- “With more than 3,000 miles of tidal shoreline, Maryland is the third most vulnerable state to sea level rise -- one of the major consequences of climate change. Large swaths of the state along the Chesapeake Bay, including Baltimore’s Inner Harbor, are experiencing higher incidence of flooding each year due to sea level rise. Baltimore and Annapolis already lead the nation in increased flooding driven by rising sea levels.”

- “A 2013 report from the Maryland Climate Change Commission found that sea level rise in Maryland could be as high as 2 feet by 2050 and more than 5 feet by the end of the century if greenhouse gas emissions don’t decline. To put that in perspective, 5 feet of sea level rise would put 3,700 miles of road underwater”.

- “Ocean City currently experiences approximately 8 tidal floods each year. In 2030 that number is projected to jump to 30 days, and by 2045, the tourist destination could have to deal with more than 170 tidal floods”.

"Building Relationships Through Christ: Family, Church and Community"
7808 Marlboro Pike, Forestville, MD 20747
➢ “A 5% drop in Maryland’s tourism industry due to hotter summer days would cost our economy $685 million annually”.

➢ Maryland Greenhouse Gas Reduction Act of 2009 is one of only eight statutory greenhouse gas reduction goals in the country. By requiring greenhouse gas emissions cuts of 25% by 2020 from all sectors of Maryland’s economy, GGRA is among the strongest and most far reaching laws to reduce carbon of any state. Maryland needs to renew GGRA to maintain its position as a national leader in facing the climate change crisis head-on.

Through the GGRA we see educational and job opportunities within the African American community within this state. It is important if this legislation is renewed make sure our youth is made a part of this process.

As a part of the faithbase community our church is urging Maryland and its leadership to renew the Greenhouse Gas Reduction Act (GGRA).

Rev. Dr. Nathaniel B. Thomas, Pastor
Maryland Commission on Climate Change
Public Hearing, August 6, 2015

Statement of Dean Suagee
Berwyn Heights, MD; dean.suagee@verizon.net

As a long-time resident of Prince Georges County, I decided to come to this hearing out of a sense of responsibility to future generations. I am an Indian lawyer in two senses: I am a lawyer practicing in the field of federal Indian law, and I am an enrolled citizen of a federally recognized Indian tribe, the Cherokee Nation. The law firm with which I am affiliated serves as legal counsel for tribal governments and tribal organizations all over the United States. My statement is offered as an individual and not on behalf of my firm or our tribal clients.

My major areas of legal expertise are environmental law, cultural resources, and historic preservation. As a member of the American Bar Association Section of Environment, Energy and Resources, I serve on the editorial board of the quarterly journal NATURAL RESOURCES & ENVIRONMENT and I am the editor of the online newsletter of the Native American Resources Committee. In those capacities, I have written quite a few articles on various aspects of climate change, mostly addressing issues in Indian country. I have also edited many articles by other authors, including having served as lead editor for an issue of NATURAL RESOURCES & ENVIRONMENT in which all of the articles addressed renewable energy topics. I have been a speaker on climate change at numerous conferences and have actually read major portions of the National Climate Assessment and the reports of the Intergovernmental Panel on Climate Change.

In the value systems of the tribal cultures of North America it is quite common to stress the obligations of people living in the present to act with the interests of future generations in our minds and in our hearts. I am Cherokee, but my wife is Mohawk, from the Kahnawake Band in Quebec, and the Mohawk Nation is part of the Haudenosaunee (Iroquois) Confederacy, so I sometimes draw on Haudenosaunee traditions. One such tradition is the Great Law of Peace, which calls for every decision to reflect consideration of the welfare of the seventh generation to come. I came here tonight to suggest that this is a principle that we should honor in our decisions relating to climate change, and I hope the members of this Commission will take this principle to heart.
Statement of Mark A. Posner to the Maryland Climate Commission

August 6, 2015

Good evening. My name is Mark Posner. I have lived in Silver Spring for 28 years, and am a member of the Montgomery County Sierra Club’s Executive Committee.

As you know, one of the issues in the forthcoming debate regarding the Greenhouse Gas Reduction Plan is the relationship between the plan and the state’s economy.

Although I am not an economist, I believe it is a matter of simple common sense that our State, and our country and the world, must consider both the short-term and, as well, the long-term impacts of climate change and the efforts to halt climate change on our economy. Too often the debate is framed merely and solely in terms of the economy’s here and now. But as a new retiree, as someone who has planned and saved for many years for retirement, and someone who has three young-adult children planning and working toward their own hoped-for long and successful adult lives, I know that such an exclusive short-term focus is foolish and dangerous.

Accordingly, I strongly urge the Commission to emphasize in its own report the analyses that have been undertaken that clearly portray the very substantial economic dangers of climate change. For example, within the past few weeks a report was issued by The Economist Intelligence Unit, entitled “The cost of inaction: Recognizing the value at risk from climate change.” The very first sentence of the report’s Executive Summary plainly and directly states the threat: “The asset management industry – and thus the wider community of investors of all sizes – is facing the prospect of significant losses from the effects of climate change.” See http://www.economistinsights.com/sites/default/files/The%20cost%20of%20inaction.pdf.

In short, climate change – if not properly curtailed – poses a mortal danger to our environment, to our health, and to our economy.

Thank you.
August 6, 2015

Testimony before the Commission on Climate Change

Chair and Members of the Commission:

My name is David Brosch. I have been involved in organizing community solar and promoting the development of solar power as a renewable energy source for a number of years here in the State. More recently I have also begun to work to reduce the production of a potent greenhouse gas, methane, the result of anaerobic decomposition in our public landfills. I strongly support the Greenhouse Emissions Reduction Act and the strategies and actions that reduce greenhouse gases through energy conservation, the expansion of solar and other forms of renewable energy, and the development of composting programs.

I must also state that my interest here lies not so much in the impact on my life but rather how a world with an increasingly hotter climate will affect the lives of my three children and my first grandson, Connor, born just ten months ago. He could live to see the next century. There are climate scientists who now estimate that sea level rise could be in the tens of feet by 2100. If that were to happen what will be the consequences for Connor, Marylanders, and all residents of this region? Our current communities along the coast, the Eastern Shore, the Bay, Annapolis, Washington D.C. and Alexandria will have to wage an expensive and probably unwinnable war with the sea and the elements. We will become a much poorer and less secure country.

For these reasons I ask you to support the renewal of the Greenhouse Gas Emissions Reduction Act for a better future and environment.

David Brosch

University Park Maryland

davidcbrosch@comcast.net

301-779-3168
Maryland Commission on Climate Change
Public Hearing on August 6, 2015, in Largo, MD

Testimony by Brian E. Ditzler
1225 Noyes Dr., Silver Spring, MD 20910  bditzler@gmail.com  301 565-0870

My name is Brian Ditzler. I'm a longtime Maryland resident.

I am reminded how much air pollution there is whenever I wipe off the glass top of the table on our patio in the summer. There is so much black soot since dinner the night before that it takes wiping the table three times with a fresh wet paper towel to clean it off - and we don't live near any coal-fired power plant or heavy manufacturing.

85% of Marylanders live in areas that fail to meet the EPA's national clean air standards. Maryland ranks 5th in the nation in adult asthma, and nearly 12% of children in our state have asthma.

Excessive greenhouse gas emissions are causing temperatures and sea levels to rise. Baltimore and Annapolis already lead the nation in increased flooding driven by rising sea levels, and Ocean City is suffering too.

Power plants are the largest contributor to the terrible air pollution and excessive greenhouse gas emissions we experience, and transportation is the second largest polluting sector.

The answer to this growing problem is for Maryland to renew the Greenhouse Gas Reduction Act next year, to require greenhouse gas emission cuts of 25% by 2020 from all sectors of Maryland’s economy, and to increase investments in clean renewable energy like wind and solar.

Implementing the carbon reduction and clean energy policies needed to achieve the GGRA goal would bring significant economic benefits including job creation and public health savings.

With climate change accelerating faster than scientists predicted even five years ago, the General Assembly should also require electricity suppliers to provide 25% renewable, clean energy by 2020, and 40% by 2025.

Another change needed would be to make “vehicles miles traveled per capita” the primary metric for determining the impact of transportation projects in our state, as California has done. Doing so will cut greenhouse gas emissions and prioritize transit over private vehicles.

These are all reasonable steps to take.
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Comments Submitted By:

Name: Doug Myers

Representing: Chesapeake Bay Foundation

Address: 6 Herndon Dr., Annapolis, MD 21403

Comments:

1. Clarify 2nd sentence in the Fact Sheet section entitled “How the GGRA impacts you.” As written, it appears to favor sequestration over reduce emissions.

2. Coordinate forest planting goals under GGRA with wetland goals & forests under the Blueprint.

3. Engage in accounting in Agricultural BMPs designed to reduce nutrient runoff.

4. Consider dissolving the artificial silos separating adaptation and mitigation – Blue Carbon

5. Sponsor a joint resolution in the legislature to support federal clean air rules and discontinue the state attorney general from attempting to block implementation of those rules.

Ocean acidification Task Force recommendations also align with GGRA.

Given that energy politics...
Testimony on the Maryland Greenhouse Gas Reduction Act Plan

Before the Maryland Commission on Climate Change
Prince George’s County Department of Environmental Resource Headquarters,
1801 McCormick Drive
Largo, MD 20774

I am speaking for our children that suffer from Asthma. Their young lives are impacted by climate change and I am saddened by their limited quality of life.

The earth is our home. Life on this planet will be gravely affected unless we embrace new practices, ethics, and values to guide our lives on a warming planet. We as Unitarian Universalists are called to join with others to halt practices that fuel global warming/climate change, to instigate sustainable alternatives, and to mitigate the impending effects of global warming/climate change with just and ethical responses.

Entire cultures, nations, and life forms are at risk of extinction while basic human rights to adequate supplies of food, fresh water, and health as well as sustainable livelihoods for humans are being undermined. Both our consumption and our disposal burden the interdependent web of existence. Together we can transform our lives into acts of moral witness, discarding our harmful habits for new behaviors and practices that will sustain life on Earth, ever vigilant against injustice.

We strongly supported the Greenhouse Gas Reduction Act (GGRA) passed by the General Assembly in 2009 because it required the adoption of a Greenhouse Gas Reduction Plan for state actions to achieve a 25% reduction in GHG from 2006 levels by 2020. While these targets may not be enough to stem or reverse the consequences of climate change, they are at least a carefully considered, rational, balanced and meaningful way to assure that our state is doing what it can. It balances environmental and economic needs and deserves to be pursued with vigor. We urge the Commission to recommend a continuation of the Plan and, if possible, strengthen it by setting even more ambitious goals.

Thank you

Christiane Graham
Leader of the Environmental Task Force and Climate Action Team at Cedar Lane
Unitarian Universalist Church
9601 Cedar Lane,
Bethesda, MD 20814
Climate Change
Maryland

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Please submit comments by Friday, August 28, 2015

________________________________________
Comments Submitted By:

Name: Chris Graham

Representing: Cedar Lane UMC Church

Address: 4112 Decatur Ave

Comments:
We have to look at enforcement as well as passing legislation.

(Please use an additional sheet or back of this form for comments if additional space is needed)

Dean B. Stuacee

Solar energy. Sunlight. Free delivers energy every day. Free, that is, if you have the technology to use it. The technology is not free, of course, although the upfront investment costs for some solar energy technologies are less than for others.

When you hear or read the term "solar energy," what technology comes to your mind? Do you think of photovoltaics, the kinds of solar panels that convert sunlight into electricity? If you do think of photovoltaics, it is your next thought something like, "I wonder when, if ever, solar electricity will be able to compete in the market without government support?" I think that depends, in part, on how long we continue to subsidize conventional electric power technologies while we fail to internalize their environmental costs. This article, though, is not about solar electricity.

Rather, this article is about solar thermal energy. Now, when you read the term "solar thermal," what comes to mind? Do you think of roof-mounted solar collectors that produce hot water, for hot showers and washing dishes? For some people, that's what "solar thermal" means. See, e.g., Frederick R. Fuczi, Alternative Energy Options for Buildings: Distributed Generation—Power Generation on or Near Buildings, in THE LAW OF GREEN BUILDINGS: REGULATORY AND LEGAL ISSUES IN DESIGN, CONSTRUCTION, OPERATIONS, AND FINANCING 125, 135 (J. Cullen Howe and Michael B. Gerrard, eds., 2010) (describing solar thermal as a technology that "provides heat for hot water"). But that's only one aspect of solar thermal.

When I think of solar thermal, what comes to mind is space heating, using a range of techniques collectively known as passive solar design. "Passive" solar heating systems generally capture sunlight, store it as heat, and move the heat to where it is needed without mechanical inputs such as pumps and fans. See generally Edward Mazria, The Passive Solar Energy Book (Rodale Press, 1979). Passive solar is sometimes distinguished from "active" solar, in which fans and pumps are used, although this distinction may not be all that significant; "hybrid" solar heating systems use both passive and active features.

Passive solar design features can also be used for cooling and ventilation, and to provide for lighting with sunlight instead of electric lights ("daylighting"). Given that in most regions of this country, space heating is the largest component of energy demand for homes and small commercial buildings, space heating is my focus in this article. Passive solar design techniques can meet a substantial part of the space heating load in most regions. It is puzzling to me why passive design has not been more prominently featured in the green building movement. (I found only a single reference to passive solar in THE LAW OF GREEN BUILDINGS, in Michael J. Zimmer and Jennifer M. Rohlender, Green Building Financing, 103, 106 (noting that the installation of active and passive solar technologies is eligible for the energy efficient mortgage program administered by the Federal Housing Administration).)

I am not alone in my concern with the neglect of passive solar. Five years ago, in a commentary in Solar Today, the magazine of the American Solar Energy Society, Doug Balcomb observed that, a generation after the first wave of government support for solar (1976–1982), "most architects have only vague memories of passive solar. It is generally misunderstood and only a few designers, many trained 25 years ago, can recall.

J. Douglas Balcomb, Passive Solar Comeback Ahead, SOLAR TODAY (Sept.–Oct. 2006) available at www.solarfoundation.org. For readers unfamiliar with the work of Doug Balcomb, he is the engineer who, while affiliated with Los Alamos National Laboratory, played a lead role in developing the analytical method for predicting the performance of passive solar in heating buildings (in the era before personal computers). See, e.g., PASSIVE SOLAR DESIGN HANDBOOK, Vol. 3 (J. Douglas Balcomb et al., American Solar Energy Society, 1983). Later, at the National Renewable Energy Laboratory, Dr. Balcomb (Ph.D. from MIT in nuclear engineering) oversaw the project to develop the passive solar design software "Energy 10" (for buildings of 100,000 square feet or less), which is now available from the Sustainable Buildings Industry Council, www.sbincouncil.org/energy-10-software.

The lack of attention to passive solar in the green building movement and, more generally, in our national energy policy (to the extent we might be said to even have a national policy), leads me to ask two basic questions: First, why? Second, what can be done about it?

Before offering some observations on those two questions, perhaps I should first provide a little more information on passive solar.

In all passive solar space heating systems, there are two essential elements: aperture (south-facing glass or some other glazing material) to let the sunlight in, and thermal mass (e.g., masonry, concrete) to absorb sunlight and store it as heat. These two elements are relatively easy to incorporate into new construction without adding much to cost, but generally not so easy to do in retrofit. Orientation has to be done correctly from the start—south-facing glass requires a south-facing wall. (And west-facing windows should be kept to a minimum—by adding to cooling loads, they increase the demand for power and can be said to cause power plants.) Similarly, if you don't have enough mass in the inside of a building, adding some later presents a challenge.

Passive solar heating techniques can be classified into three broad categories: "direct" gain, "indirect" gain, and "isolated" gain. A single building can incorporate all three of these kinds of techniques. Direct gain systems feature south-facing windows (and/or clerestories) and thermal mass in the living space (e.g., floors, walls). Overhangs are designed to block sunlight in summer and let it enter in winter. Indirect gain systems place the thermal mass on south facing walls, covered by glass and an air space—the mass captures the heat and gradually radiates it into the living space. This technique is generally called a mass wall (or, if it is used only beneath a window, it might be called a "half-wall") and, if it is called a "Therm-wall," after its inventor, Felix Therme. Isolated gain systems feature sunspaces, atriums, and greenhouses, which are spaces that require little or no auxiliary heat and which provide some heat to the living space.

That's a basic overview of passive solar. In addition to the sources previously cited, the Department of Energy provides information on the web at www.energysavers.gov/your_home/designing/remodeling/index.cfm?mytopic=10250. There are many nuances in passive design. Software such as Energy 10 can be used to analyze and choose among the various options.

Now, back to my two questions. First, why is passive solar being
largely ignored? I don’t know. After all, it is a mature technology that saves money with little upfront incremental cost (and sometimes a reduction in incremental cost by downsizing, or even eliminating, conventional heating equipment). Passive solar also reduces greenhouse gas emissions by displacing fossil fuels. It creates living spaces that contribute to an enhanced quality of life. So why isn’t passive solar a standard practice in new construction of homes and small commercial buildings? Why is there only one passing reference to passive solar in The Law of Green Buildings?

One factor in the neglect of passive solar may be that the two essential elements—orientation so that a long wall faces south and thermal mass in the living space—are just different from the business-as-usual scenario in new construction. Moreover, orientation for solar design does not seem to be a factor in the layout of subdivisions (which, of course, should be mixed-use, feature bike paths, and be located close to transit nodes to reduce motor vehicle traffic, but that’s another subject).

My second question—what can be done to rectify the neglect of passive solar? Maybe we ought to re-tool land use planning laws to facilitate building orientation for solar design.

The other obvious governmental policy tool is building codes. I have an idea about how to incorporate passive solar into building codes, an idea that will require a little set-up before I get to the point. Let’s start with Architecture 2030, which is an organization that promotes the goal of making net-zero energy the standard practice for new construction and major renovations by 2030. See www.architecture2030.org. To get there by 2030, Architecture 2030 calls for a set of interim targets: all new buildings should be designed to consume 60 percent less fossil fuel energy than the current regional average for that building type. The targets are ratcheted to 70 percent less in 2015, 80 percent less in 2020, 90 percent less in 2025, and carbon neutral by 2030. This basic concept was incorporated into a bill that the House passed in 2009 (which died in the Senate), the American Clean Energy and Security Act, H.R. 2998, § 201 (the Waxman-Markey bill) Cong. Rec. H7505–08 (Daily Ed., June 26, 2009). That bill used the 2006 version of the International Code Council (ICC) Residential Energy Code (REC) as the baseline for homes, with incremental reductions in energy consumption pegged to that baseline, moving toward net-zero energy by 2030. If we are going to make it to net-zero energy, I think passive solar is going to have to be a big part of achieving that goal.

Here’s my idea. State, local, and tribal governments could enact a performance-based standard for their building codes that makes incremental targets such as those specified in Architecture 2030 legal requirements. For each building permit, a building that conforms to the ICC REC could be the baseline or reference case. A design tool such as the Energy 10 software could be used to refine the proposed building design, adding passive and other energy saving features, until it achieves the required target for energy consumption. Under this approach, no specific passive techniques would be required; rather, the permit applicant could choose the mix of techniques. A variation on this idea would be for the governmental agency charged with administering the building code to become really adept at using Energy 10 and help applicants for building permits meet the prescribed energy savings increments, in effect, treating code compliance as providing a public service.

But there is a problem. It concerns low emissivity (low-e) glass, which has become a standard component of energy-efficient windows. There are two basic types of low-e glass: soft coat and hard coat. See Kenneth Haggard, et al., Seeing the Invisible: Passive Solar Heating and Window Glass, Solar Today (May 2010), at 16. Soft coat is best on east, north, and west windows, but its solar heat gain coefficient is too low for south-facing windows in passive solar applications. For that you need the hard coat variety. The problem, as reported by Haggard and his co-authors, is that window manufacturers aren’t making hard coat low-e glass anymore. The authors note that the leading green building rating system, Leadership in Energy and Environmental Design (LEED), misses the point that “passive solar architecture can create energy-producing, as well as energy-conserving, buildings.” Id. at 18 (emphasis in original). The authors of the relevant chapter in The Law of Green Buildings also miss this point. Michael J. Baker, et al., Green Materials and Construction, id., at 217, 226–27.

Being an Indian lawyer, I will close on an Indian law note. Just this tribal governments, through the use of their sovereign lawmaking powers, could assume leadership roles in dealing with these issues. Passive solar homes for Indian families through the enactment of tribal building codes. Imagine that.

Mr. Swaugee is of counsel to Hobbs, Strauss, Dean & Walker, LLP, in Washington, D.C., and a member of the editorial board of Natural Resources & Environment. He is a citizen of the Cherokee Nation. He may be reached at dswayne@hobbsstraus.com.