**CLIMATE CHANGE – OUR CURRENT UNDERSTANDING**

Pat and Steve Miller recently attended a leadership training in Denver given by Al Gore’s Climate Reality Foundation and became certified as Climate Reality Leaders. This project involves giving educational talks about climate change to as wide an audience as possible and lobbying for action to reduce human-caused global warming and mitigate the effects of carbon pollution.

On Sunday, March 19, after the service, Pat and Steve gave a 30-minute presentation to a group of about 20 people at Good Shepherd. We used Al Gore’s slides and Al Gore’s words, as much as we could. We considered this a “friendly audience” for our first-ever presentation on the topic, and it generated a lively discussion. The story begins with a scientific explanation of how carbon pollution (“greenhouse gases”) in the earth’s atmosphere causes the warmth of the sun’s radiation to become trapped below it, warming the earth. We ask, and attempt to answer affirmatively, 3 questions: Must we change? Can we change? Will we change?

Then comes a discussion of the evidence: increasing carbon emissions from fossil fuels over the last century and the huge amount being generated daily (equivalent to 400,000 Hiroshima-sized atomic bombs per day), and its effects on global average temperatures. The last 3 years have each been the hottest year ever recorded. The impacts on humans come in many forms: heat waves, warming of oceans that causes more extreme storm events with coastal flooding, such as Super-storm Sandy, “rain bombs” that cause inland river flooding, drought and resulting famine, and fires. Examples of each of these are shown in dramatic videos and photos. All of these in their more extreme forms cause increased death, famine or disease. Tropical diseases, such as Zika, are showing up in parts of the world that were previously too cold to sustain them, and sea level rise from melting glaciers is threatening the habitats of millions of people.

The case for the need to change is made, if you believe these impacts are a threat to life as we know it and if you care about future generations of humans. The ability to change is here today, in the form of clean, renewable energy to replace fossil fuels. Wind and solar have grown so much in capacity that the lifetime cost of clean energy has finally dipped below that of fossil fuels. Good Shepherd has been able to take advantage of this by switching to a renewable electricity supplier. And renewable energy has created over 3 million jobs in the US already and is the fastest-growing jobs sector. Cities and even whole countries all over the world have already switched to 100% renewable energy.

In 2015, virtually every country in the world – 196 of them – signed onto the Paris Agreement to work together to achieve net zero greenhouse gas emissions. China is well on its way to achieving its goals, and India is actually ahead of schedule. People in increasing numbers are marching in Climate Marches (the next one April 29 in Washington, DC), switching to clean energy, and lobbying their local governments to do so.

Do we have the will to change? Increasing numbers of people do, and the economics is driving investment and even non-believing consumers to sign on. It is a moral challenge – right vs. wrong, and it is foreordained because of who we are.

The following Call to Action is a sheet of suggested actions any individual can take to contribute.

**Call To Action**

*Climate Change is the most pressing moral, ethical, and survival issue of our time*.

1. Inform yourself with reliable, peer-reviewed sources <https://skepticalscience.com/Welcome-to-skeptical-science.html> <https://acespace.org> Alliance for Climate Education
2. Support environmental charities: Sierra Club, Environmental Defense Fund, Union of Concerned Scientists, Natural Resources Defense Council. Read their electronic and paper mailings to become fully informed.
3. Let your elected officials know you are concerned about climate change and expect action for a livable world. https://www.house.gov/ Enter your 9-digit zip to find your Representative in Congress and contact info for local and DC offices. https://www.senate.gov/senators/contact/ Enter your state to find your Senators and contact info. Call or write about issues important to you, both to inform them of your position and urge them to vote the right way, and (especially) to thank them for supporting you in past votes. Download and install apps such as “5 calls” to become knowledgeable about each day’s current issues, with scripts and automatic connection to Congressional phone numbers.
4. Join <http://www.jerseyrenews.org> to help New Jersey aggressively expand renewable energy commitments and reduce greenhouse gas emissions
5. Check out your own carbon footprint, and see what areas in your personal life you can make more energy efficient. <http://www.nature.org/greenliving/carboncalculator> After calculating your carbon footprint, make a carbon-offset contribution (a charitable contribution tax deduction).
6. Make changes in your personal lifestyle to become more energy-conserving: recycle and compost, use fewer disposables, use LED lights, conserve water, conserve heat and AC by setting the thermostat back (or buy a NEST thermostat to do it automatically), drive hybrid or electric cars, take mass transportation, buy high-efficiency appliances. Switch to a clean, renewable energy supplier or install solar electric. Buy carbon offsets to counter activities like driving or air travel or events like conferences or weddings.   
   <https://www.greenmountainenergy.com/for-home/carbon-offsets/>
7. Support or become active in local groups addressing the climate challenge: MCCC Monmouth Community Climate Coalition, CCL Citizens Climate Lobby
8. Connect the dots between climate change and social justice issues you care about, for example world hunger, the fact that the most vulnerable are the first to be hit and are hurt the most. The UN development goals give an idea of the connections: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
9. Talk about climate change with friends and family, and listen to their concerns, to raise awareness. Address the issues in faith communities and civic groups – help fellow members connect the dots between climate change and justice, health, peace, human rights.
10. Get involved and/or create local “Green Team” activities. Go to local town committee meetings and speak up about climate-related issues. Help guide your town toward “100% renewable”.