**Title:** Global Warming Is Real!  
**Highlights from the Data**  
by Phil Morris PhD, retired Molecular Biologist and High School Science Teacher and concerned about Global Warming.  
**Contact Information:** I live in Edmonds, WA and want to meet people interested in supporting a Pro-Global Warming agenda. Contact me if I can get involved or be of assistance in any way. I can be reached at phil.morris@gse.org  

**Topic 1: Human Impact on the Planet Earth**  
- The Human Race has a direct or indirect impact on 83% of the Earth's land surface and considerable impact on its Oceans.  
- The three greenhouse gases, Carbon Dioxide, Methane and Nitrous Oxide are responsible for most of the Earth's Energy Imbalance.  

**Topic 2: The Greenhouse Effect – A Natural Phenomenon**  
- The principal source of energy to the Earth comes from the Sun.  
- The Earth Today – The Greenhouse Effect  
- The Industrial-Era (1700)  
- The Earth Today (1870)  
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**Topic 3: The Greenhouse Gases: Atmospheric Levels are Increasing!**  
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**Topic 4: Ice Core Proxies - Past Climate Conditions**  
- The Law Dome Ice cores are very informative for climate research. Due to the high snow fall at Law Dome Antarctica, the snow is compressed into ice on a shorter time scale. Atmospheric Greenhouse Gas (GHG) levels were obtained up to 10,000 years ago. These data show that the levels of the major GHGs started to increase at about the same time as humans began using larger and larger amount of fossil fuels for their source of energy. This was the result of the Industrial Revolution starting in 1700.  

**Topic 5: Current Temperatures—The Trend is Upward**  
- The graph shows the upward trend in recent years.  
- *Alarm* still exists for the future and our population.  

**Topic 6: Radiative Forcing Data—The Earth is in an Energy Imbalance!**  
- Radiative forcing of climate between 1750 and 2011  
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**Topic 7: Carbon Dioxide Emission by Humans: They are Increasing!**  
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**Topic 8: Atmospheric Levels of CO₂ from Mauna Loa Observatory**  
- Show that the recent increase in atmospheric CO₂ levels is very recent.  

**Topic 9: Global Population Growth**  
- Driver of Fossil Fuel Usage  
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**Topic 10: Could Natural Causes Be Responsible?**  
- Solar Forcing & Volcanics  
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**Topic 11: The IPOC's RCP Projections for 2050 and 2100**  
- The details of RCP 4.5  

**Topic 12: Summary: A 3°C increase in average global temperature!**  
- This is a 6°C increase  
- This increase over the next 10 to 20 years.  

**Summary:**  
- The sun’s energy received at the top of Earth’s atmosphere has been measured by satellites since 1978. It has followed its natural 11-year cycle of solar ups and downs, but with no net increase. Over the same period, global temperature has risen markedly (blue).  
- While solar irradiance has not increased over the past 30 to 40 years the global mean surface temperature has continued to rise.