



# Climate Change Solutions



**“Stopping Climate Change is the defining issue of the 21<sup>st</sup> century for the health and safety of the human race”.**

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**Note: Communicating this information as news to others is free of charge. 4**

# Introduction

- **Every adult, parent, child, teenager, school, church, business, charity, foundation and government organization must wake up and face the real danger to our survival on the Planet Earth from Climate Change and Global Warming.**
- **This NOT activist rhetoric, it is not liberal thinking... it is accurate and real.**
- **This presentation describes the danger, and what Americans can do to stop Global Warming.... And in many cases how to lower cost at the same time !**
- **We must focus on the medium to long-term, not just short-term thinking.**
- **We must truly think “Out of the Planet”**



# The Global Warming Danger Defined

- The cost of addressing the impact of climate change for future generations (our children and grandchildren) could be 530 Trillion dollars. A crippling cost. (1)
- Air pollution in the U.S. is responsible for thousands of deaths and costs over 800 billion dollars per year (2)
- Temperatures are rising, and the amount of rainfall in the western states has been decreasing, causing droughts, crop damage and severely hindering residents' ability to lead a healthy, normal life. (3)
- Rising temperatures increase wildfires, costing billions of dollars in damage. (4)
- Extreme heat around the world, greatly increasing disease (5)
- Global droughts, Inability to grow crops and food (6)
- Huge increases in mega-storms and resultant destruction (7)
- Spread of dangerous viruses due to air pollution (8) (9)
- Extreme misery and millions of avoidable deaths (10)



# What can the average American do to stop Global Warming ?

1. Install a Level-2 240 V electrical plug in the garage for charging electric vehicles.
2. Purchase 100% battery electric vehicles (BEVs). The 6-year cost of ownership can be less than a fossil-fuel vehicle. (11)
3. Purchase electricity for your home from 100% renewable sources, such as wind and solar. Renewable Energy Credits can sometimes be purchased. If this is not available from a utility, write letters and communicate with government officials.
4. Less preferred alternative: Have a professional install solar panels on the roof.
5. Establish a plan to replace all fossil-fuel fired equipment (when each is close to reaching the end of it's useful life) in your home with renewable-powered equipment. This includes furnaces, hot water heaters, and cooking appliances.



## **What can the average American do to stop Global Warming ?, continued**

- 6. Solar Hot Water heaters should be evaluated. The solar panels can be mounted on your roof.**
- 7. Systematically replace all lawn and garden equipment with a battery version. Mowers, trimmers, blowers, etc.. are all available with battery technology. Then permanently remove any stored gasoline, you do not need it.**
- 8. Use the new electric BBQ grills. Get rid of all propane.**
- 9. Evaluate your progress, and confirm all gasoline and propane has been removed, and no heating oil or natural gas is used in any equipment.**
- 10. Celebrate in the knowledge you have taken a huge step forward to protecting the health and safety of your children and grandchildren !!**



# How can Renewable Technology Save Money ?

## Two Examples:

1. Experience with the Tesla Model 3 Electric Vehicle shows a lower cost of ownership over a 6-year (100,000+ miles driven) period of time, compared to a fossil-fuel vehicle. (11)
  - Note: If a person takes trips in excess of 80 miles, they should seriously consider paying the extra money for a long-range vehicle (300+ mile range)
  - The batteries in electric vehicles can last over 250,000+ miles. Used electric vehicles are now becoming available, which lowers initial cost.
2. Renewable Electricity for the Home can often be the easiest and a cost effective way of lowering carbon to atmosphere. (12)
  - Solar in particular, in recent studies, is on par or cheaper than natural-gas generated electricity. This is often an option from a local electric utility.
  - If this is not available, solar panels for your roof can be purchased or leased. Be sure to evaluate the details of any lease agreement. The electricity savings should pay for the monthly lease cost.

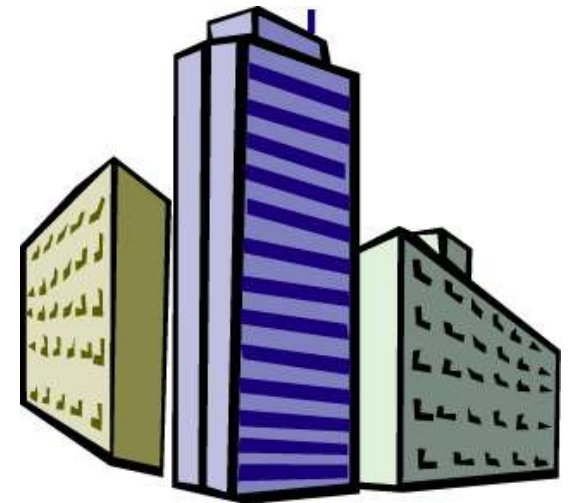
# Transition to Renewable Power – Practical Issues

- **Some will say: “This plan is great for Americans in the top 25% of income, but what about the rest of us ?”**
- **Everyone can develop a plan and start with the electricity source to the home.**
- **Everyone can find ways to reduce spending in some areas of their life, so more money is available for investment in renewable technology.**
- **People who live in apartments or high-rise buildings can send letters to the owners about the importance of Renewable Power and reducing carbon to the atmosphere.**



# What about Schools, Universities, Churches and Businesses ?

- Every organization in the country can implement the 10 step plan on the previous two slides across 10-12 years, or sooner.
- Yes, reallocation of financial resources, government grants, donations, and tax credits can all contribute.
- The easiest first step is to commit to electricity from 100% renewable sources, such as solar.
- Again, does America really have a choice? Waiting even ten more years brings significantly more harm to future generations.
- Budgets across the country will have to be re-evaluated





# Everyone can Make a Difference – but they must speak up

- Any American can:
  - communicate with their school or church about the importance of lowering carbon to the atmosphere.
  - volunteer to help their school or church plan for renewable power.
  - communicate with business leaders that you expect them not to harm the atmosphere with carbon pollution.
  - write government representatives about laws to require renewable power, and subsidies for low income citizens to obtain renewable-powered vehicles and other equipment operating on renewable power.
  - write government representatives about laws to ban the future new construction of buildings with any fossil-fuel use.
- How many Americans have done this in the last two years? Probably not many... but that has to change if we are to make progress.



# Home Building Companies - Issues

- Home buyers can start communicating with Home Builders that they want an all-electric house. No natural gas of any type.
- One example: Electric Heat Pump air conditioning and heating units can replace gas-fired furnaces.
- The power of the consumer is not well understood.
- These kinds of communications need to start now, long before any person goes shopping for a home.



- Summary: Everyone.... child, teenager, adult, can make a difference by permanently changing their mind-set and daily habits. It just takes the will and the commitment.

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