The Great Sustainability Compromise... thinking... "Out of the Planet"





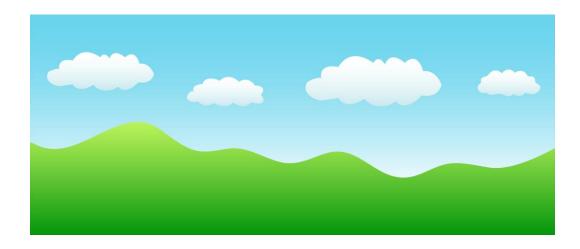
"There is a Win-Win available to reduce carbon emissions while prospering financially for the medium and long-term.

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Introduction

- The last 25 years in America have been full of disagreement between environmental champions and the fossil-fuel industry stockholders, employees and supporters.
- There is a positive path forward to convert fossil-fuel stockholders, employees and supporters into avid environmental champions and rapidly reduce carbon emissions.
- Two words: "Understanding" ... and... "Cooperation"



Topics

- A. The American Fossil Fuel Industry
- B. A Sustainable Economy
- C. Conflicts
- D. The Great Sustainability Compromise
- E. What will happen if we do not choose this plan?
- F. Summary



A1. The American Fossil-Fuel Industry

- The Industrial (Fossil-Fuel-based) Economy has been in place 100+ years.
- America has benefited and grown economically.
- The Fossil-Fuel Economy contains:
 - Oil and Gas refining and industrial facilities
 - Manufacture of vehicles that run on fossil fuel
 - Electricity generation from coal & natural gas
 - Buildings and equipment that operate on fossil fuel







A2. The American Fossil Fuel Industry - Background

- In 2019, 3.3+ million Americans were employed in the production, refining, power generation and transmission-distribution sectors of the fossil-fuel industry (another 12 million in-direct jobs are also dependent on the industry).
- In addition, 2.5+ million Americans (and 10 million in-direct jobs) are employed in the fossil-fuel motor vehicle industry.
- The total corporate debt for fossil-fuel related companies is over 1.3 trillion dollars.
- Total stock capitalization of fossil-fuel related companies is over 2.5 trillion dollars.
- America is heavily invested in fossil-fuel.

A3. The American Fossil Fuel Industry – Current Status

- For 20+ years, multiple credible reports have described that carbon emissions from fossil fuel are greatly harming the planet's atmosphere, creating global warming, and globally threatening the lives of millions of people (including children).
- Also, recent sustainable technology advancements in electric vehicles and electricity generation from large solar farms has the fossil fuel industry in a very difficult situation financially. Their industry is shrinking.
- Example: In 2020. Exxon-Mobil lost 40+% of it's value, was removed from the Dow Jones Industrial Average, and stockholders started a revolt to force the Board of Directors in a new and more positive direction.
- Sustainable technology is clearly taking the lead.

A4. Fossil Fuel – Financial Impact

- Belief: Fossil-fuel products are always cheaper than sustainable products...
 THIS IS A MYTH
- Unchecked global climate change from carbon emissions is predicted to largely ruin the human race's ability to survive on the Planet Earth. (1)
- Experts estimate future generations will suffer trillions of dollars in extra costs due to pollution and impact on the climate (2)
- Is there is a better way...?
- We must stop trying to save polluting Industrial facilities.
- That money will have a negative return long-term



A5. Fossil Fuel Employees have been Working for Us

- Many Americans have been criticizing the fossil fuel industry for decades.
- The reality is that American citizens are responsible for the fossil fuel industry.
- We wanted energy to power our transportation and heat our homes, and we purchased their products willingly.
- They deal with hazardous, flammable and explosive materials every day.
- For the past 20+ years, each year, over 1,700 employees directly or indirectly related to fossil fuel, lose their lives.
- Because of their sacrifices and contributions, they and their valuable industry deserve financial assistance from all of us to re-direct their talent to sustainable energy products.



A6. Fossil Fuel Leaders and Employees – More Positives

- Given the multi-decade economic success of the fossil-fuel related industry, it is fair to say the 6+ million direct employees and 22+ million indirect employees are among America's best and brightest.
- They worked hard for their education and skill development, worked hard in their jobs, and have achieved significant success.
- It is no small issue that 28 million families have prospered also.
- These employees are also resilient and adaptable, given the right circumstances.
- Given a fair chance, <u>every one of them could willingly</u> <u>become an environmental champion within a short period of time (actively working to reduce carbon emissions and prospering economically).</u>
- Yes, it is possible.



B1. A Sustainable Economy - Attributes

- A Sustainable Economy is associated with:
 - Manufacture of vehicles that run on electricity
 - Electricity Generation from solar and wind
 - Buildings and equipment that operate on renewable energy.
- A Sustainable Economy can go on for centuries with low harm to Earth's eco-systems.







B2. Sustainable Technology – The Facts

- Electric vehicles contain far fewer parts and require much lower on-going maintenance, compared to a fossil-fuel vehicle (3)
- Due to lower manufacturing costs, lower operating costs, and a higher % resale value after 100,000 miles, the overall cost of ownership of an electric vehicle across a 5-6 year period of time can be equal or lower than an equivalent fossil fuel vehicle (4)
- Most Americans are not aware of this important reality.
- The cost of solar-generated electricity is now on par with natural gas, and recent advances are clearly taking the solar cost lower. (5)
- Sustainable solutions have now achieved a cost advantage over fossil-fuel options.

B3. Sustainable Technology - The Realities

- Hundreds of credible experts have described that we (as a planet) must significantly reduce carbon-to-atmosphere emissions in the next 10-12 years.
- If we do not.... global temperatures will rise to dangerous-deadly levels for our children and grand-children.
- There is such a massive number of these credible calls for positive action, this dire need is no longer subject to debate.
- The remaining debate is how in the world to accomplish this transition in America?
- 3.8 trillion dollars in fossil fuel corporate debt & stock capitalization and 28 million jobs at stake are huge challenges for any transition.



B4. Sustainable Technology – Before This Decade is Over

- Many Americans will walk into traditional vehicle dealerships, and find most new vehicles for sale are battery-electric powered.
- American utility companies will largely be transitioned to solar, wind and renewable technology (while maintaining hydroelectric and some nuclear).
- Many, many buildings will be operating on renewable energy.
- The storage and use of energy for electricity will be light-years more advanced than it is today. Energy storage does not have to be in batteries.



C1. The Conflicts - Business

- Industrial (fossil-fuel based) economy <u>business leaders</u> are struggling.
- They protect product sales, but are losing the battle (6)
- Industrial economy <u>employees</u> are likewise uncertain about their jobs. (7)
- They are concerned about how to continue to support their families.
- They can get defensive when sustainable products replace their company's products.
- Are Sustainable companies truly considering the impact of their new products on their fellow Americans in the Industrial economy?





C2. Conflicts – Employment

- Blue-collar and white-collar workers have been treated like the fly-wheel of the American economy
- If the economy goes south, workers are treated like cannon fodder and are laid off by the millions while executives get golden parachutes (8)
- Laid off workers and their families suffer, and live off unemployment, which is only paid for a few months. (9)
- American workers justifiably do not trust business leaders.
- What to do?



C3. Conflicts - American Bickering and Fighting

- For 20+ years, environmental champions have been severely criticizing the fossil fuel industry, and calling for massive change to renewable power and sustainable transportation (interestingly, many of these people purchase and use buildings and vehicles that burn fossil fuel).
- There is virtually no effort to offer assistance to the fossil fuel industry in any transition, just vocal complaints and negative labels.
- Meanwhile, supporters of the huge fossil-fuel industry accuse the other side of advocating financial ruin and destroying millions of ,jobs with the new renewable energy agenda.
- Many fossil fuel leaders, employees advocate a plan to take 30+ years to transition to renewable energy. <u>However, this is surely a path to death</u> and destruction.



D. The Great Sustainability Compromise

- First, realize we ALL have some accountability... as a nation, we have allowed massive pollution while growing economically.
- Second, we cannot continue to pollute the planet and ruin the chances for future generations to have a happy life.
- Therefore...
- The United States can adopt a new goal:
- We must support and protect jobs by providing assistance to the fossil-fuel industry in transitioning rapidly and wisely to American sustainable jobs
- Sustainable jobs can go on for decades and centuries
- This is the goal that will bring prosperity to all Americans
- Note: "rapidly" means 80-90% transition within 10-12 years.



D. The Great Sustainability Compromise – Steps

- 1. Display Understanding and Caring for Each Other
- 2. Environmental Champions (and all Americans) Offer Meaningful Assistance
- 3. The Fossil-Fuel Industry agrees to a Rapid and Wise Transition to Renewable Energy.
- 4. Human Beings Are Treated with Dignity and Respect.
- 5. America Commits Billions to the Transition
- 6. Renewable Energy Systems are Constructed Rapidly and Wisely
- 7. Everyone Sacrifices and Contributes



D1. Display Understanding and Caring for Each Other

- No significant problem was ever solved by bickering, fighting, personal attacks and on-going efforts to discredit the other side.
- Both sides of this issue should come to the table of compromise.
- Both sides should consider the needs of the other in order to solve this enormous and complex problem.
- Seeking a Win-Win can achieve success.



D2. Environmental Champions (and all Americans) Offer Meaningful Assistance

- First, the fear in fossil-fuel business leaders and employees must be addressed.
- Environmental champions, renewable-sustainable industry business leaders and Technology companies should offer assistance to the fossil-fuel industry.
- A national transition leadership team could be formed, composed of people from all sides of the issue. This includes employee, business, technical & legal experts.
- The assistance could include cooperation AND financial funding for the transition.
- The assistance agreement would be for a ten-year+ period, with re-assessment and progress checks every two years.
- These agreements would be at a national level
- These offers for assistance (more detail in a later slide) are an olive branch and an invitation to the fossil-fuel industry to make important commitments.

D3. The Fossil-Fuel Industry agrees to a Rapid and Wise Transition to Renewable Energy

With assistance offered, the fossil-fuel industry could agree to the following:

- A rapid accounting of all American fossil-fuel industry companies and facilities, including the number, capabilities and location of all employees.
- Cooperation to develop a 10-year retro-fit or shutdown plan for most all fossil-fuel facilities (yes, this may take 12-14 years). This probably includes the prioritized showdown (and clean-up) of the oldest facilities first. Executive salaries will be capped.
- All sectors of fossil fuel: production, refining, power generation, transmissiondistribution, and vehicle transportation would have a retro-fit or shutdown schedule identified that is in-sync with the rapid deployment of new, renewable energy facilities. This timing match is important and must be planned.
- Fossil-fuel employees will be offered a choice:
 - Stay for several years to operate the old facilities to shutdown, then go through retraining and job placement (or retire). Bonus incentives to stay may be needed.
 - Or.. go through immediate re-training / job placement in the renewable energy field.

D4. Human Beings Are Treated with Dignity and Respect

- The phrase "re-training and job placement" has developed a very negative reputation for several decades.
- Millions of American employees have endured massive lay-offs, waiting months or years before they could find another job, and unemployment benefits that were a few hundred dollars per week and ended after six months.
- There was no committed plan to help them in the transition. Their families suffered.
- This Renewable Energy Transition will be different.
- The fossil fuel employees themselves will help create the transition plan.
 There will be a national-level organization to find a job for each person.
 People will be paid a living wage during re-training and job transition, then they have a regular salary. This system will continue for 10+ years.
- There must be high commitment and high credibility in this national-level plan.

D5a. Americans Commit Billions to the Transition - Cash

- Financial support will be called "transition funding assistance".
- The 100 largest American Technology Companies should be operating all their buildings and vehicles with renewable energy within 5-6 years.
- The 100 largest Technology Companies could dedicate a percentage of their huge gross revenue to help pay-off a large portion of fossil-fuel corporate debt.
- American citizens and organizations (including fossil-fuel employees) could dedicate 0.5% of gross earnings to a fund to help employee transitions and construction of new, sustainable facilities. This is called the "Half Percent Plan".
- The top 0.5% wealthy individuals in America could contribute significant funds to this effort (to be negotiated).
- This entire financial effort could be coordinated by a leadership team with representatives from all impacted groups.

D5b. America Commits Billions to the Transition - Stock

- The total stock capitalization of American fossil-fuel company stock is over 2.5 trillion dollars.
- Some creative stock swap system must be developed.
- One example: Each share of stock in a fossil-fuel company would ultimately be swapped for an equivalent-cost share (see note below) of a designated exchange-traded-fund (ETF) which holds stock in the top one hundred technology companies in America.
- Another example: Ultimately, each share of stock in a fossil-fuel company would receive equivalent value (see note below) in ownership of new solar / wind farms.
- Note: there will be chaos unless there is an agreement. The stockholders could be guaranteed at least what the fossil fuel stock was worth on a designated day.

D5c. America Commits Billions to the Transition – Endowments, Foundations and Non-Profits

- Endowments, Foundations and Non-Profits could contribute 1.0 % of total income and apply the funds to transitioning their buildings and vehicles to renewable energy.
- This is a national crisis.
- Note: to accomplish the transition, endowments and foundations may become owners of large solar or wind farms.



D6a. Renewable Energy Systems are Constructed Rapidly and Wisely

- Using the financial resources provided in the previous steps, renewable energy facilities could be constructed using a previously determined transition plan.
- Millions of new jobs could be created with this effort !! (see next page)
- These new facilities will replace the more flammable and hazardous oil, gas and coal production, refining, power generation, and transmissiondistribution systems.



D6b. Renewable Energy Systems - A Partial List

- Mining of rare metals for renewable energy technology must be performed responsibly and in an eco-friendly manner (jobs).
- Massive numbers of utility-scale Solar and Wind Farms are constructed (jobs).
- Wind-towers must be built of materials that can be recycled (jobs).
- An upgraded national electric grid is constructed (many jobs).
- Vehicle battery and charging systems must be standardized (jobs).
- Electric vehicle charging stations are installed nation-wide; operating with renewable electricity (jobs).
- Electric Vehicle manufacturing facilities are built for all types of vehicles (jobs).
- New standards are created for solar or all-electric homes & all-electic commercial buildings, plus other environmental-related building standards (jobs).
- New recycle systems are created for all the above, to process and re-use all material when each reaches the end of it's useful life (jobs).

D7. Everyone Sacrifices and Contributes

- Environmental Champions, the Technology Companies and the rest of America can provide significant financial resources and cooperation.
- The fossil fuel companies and their investors have to be prepared to only receive 80-90 cents on the dollar for their corporate debt. This is better than the 20-30 cents on the dollar that may happen when the efficient and low-cost renewable energy companies implement better alternatives for the American people.
- So, everyone is sacrificing and contributing in some way.

E. What will happen if we do not choose this plan?

- Unchecked, in about 30 years, the destruction of the planet's eco-systems will be largely complete. (10)
- Extreme heat around the world, greatly increasing disease (11)
- Droughts, Inability to grow crops and food (12)
- Huge increase in mega-storms and resultant destruction (13)
- Spread of dangerous viruses due to climate change and air pollution (14) (15)
- Extreme misery and millions of avoidable deaths (16)
- We are already too late to prevent some of the misery for future generations.



F1. Summary - Special Considerations

- Planning will be so effective, that across the nation, workers will be interviewed and asked:
 - Would you rather stay in your current industrial job, and help in the transition over the next several years ?... or...
 - Would you rather go to a new job or re-training program?
 - Their answers will be taken into consideration
- The Workers must support the ultimate reality...
 - Their individual education, skills, experience and proven performance record is fair input for this system
 - There are no guarantees on geography or a perfect job
 - Flexibility is important by management, and by employees.



F2. Summary - For Unions and Blue-Collar Workers

- Sustainable jobs can go on successfully for generations.
- Virtually all Sustainable companies do not need bail-outs in order to pay salaries.
- Sustainable jobs will minimize harm to the environment and help families stay happy and healthy.
- Workers should consider these facts before deciding whether to support or not support these ideas.



F3. Summary - The Great Sustainability Compromise

- Achieve Sustainability, help save the Planet Earth
- Help our children, help future generations
- Support and protect American <u>Sustainable</u> Jobs
- Realize: This is only the first large step... more later





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