

**Attachment 1.1 – What we must do to survive.
Parts of Paragraphs One and Two of the Declaration of Independence**

1. "... it becomes necessary for One people to dissolve the Political Bands which have connected them with one another and to assume among the Powers of Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them ..."
2. WE hold these Truths to be self-evident, that all Men are created equal and that they are endowed by their Creator with certain inalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness - ... to them shall seem most likely to effect their Safety and Happiness."

Lofty words by slave owners, aristocrats, and white men. Were they intentional words? "One people"? "Equal Station"? "Laws of Nature"? "Nature's God entitle"? "WE"? "Self-evident"? "endowed by their Creator"? "inalienable rights"? "among these are "Life", "Liberty" and the "Pursuit of Happiness"?"

Are these words B.S.? Does the WE of Paragraph 2 represent all of us, or not all of us?

If there is no "One people", then beliefs spoken from Power supersede Truth. With this premise obfuscation stops real progress towards one goal: Successful Life for all! Have we really progressed since the founding "fathers"?

We have been programmed for inadequacy far too long. Consider the: Who, What, Why, Where, When and How, and the Results. Are the present conditions what we want? Dare we implement solutions that are all-inclusive?

1. Who? All citizens of the planet? We will fail with "us-them" thinking. . And we will fail if short-term, narrow institutional interests block the will of all earth's citizens. Therefore one primary goal would be to impose the will of citizens of the planet on the institutions that have a vested short-term interest in continuing to do harm. See Attachment 8 for Legislative Suggestions.
2. What and How? We agree to live 5 major values, which supersede all religions, beliefs and crazy thinking:
 - a) Do no more harm and undo what harm has been done,
 - b) Synergize all of our data and experience into the best solution,
 - c) Create a safe, gentle and successful landing in 2050,
 - d) Be transparent, honest and value driven with one another throughout, and
 - e) All people must share in the benefits. That is, poor people can't afford to pay attention to sustainability. They have to get food and fuel right now, at any cost. This is why the Environmental Justice component is so critical.
3. Where? Planet Earth, as modeled by the United States of America? The International Declaration of Human Rights might be a guiding light for our behavior and laws.
4. When? Our specific goal is 2050. Yet, we only have 3 years to undo the trend of global warming. Unless design a roadmap to 2025, this experiment called "Life" will exponentially and irreversibly degrade. Our planet will no longer be able to support Life as we imagine it could be.
5. Why? Life. That starts with survival. None of us can be in scarcity. Otherwise fear, grief, sadness and anger and rage emerge and some *fight* for survival. We all need air, water, light, and the earth's resources. We need hope that the journey is well mapped and we can persevere to the end and attain the goal.

Attachment 1.2

6. When we design openly with profit being secondary to wisdom. Life as we've imagined, planned for, designed for, and followed the implementation ... This process *does* create new, on-the-ground results. Of course, the \$64,000 dollar question is: "How does this wisdom get implemented throughout the system?"
 - A. CLCPA is now transitioning into the Implementation Design. The draft Scoping Committee is finalizing the wording of the Implementation Design. The huge challenge, from my perspective, is to create such a compelling outreach program, that the New York State model achieves general acceptance, hence legitimacy, hence acceptance, appreciation and is embraced as a world-wide model. This can only happen when the law is modified. CLCPA is an absolutely awesome start. Reframing of the New York State economy is also needed. Please review Attachment 8.
 - B. Finally, here are the opportunities that a consensus-driven Implementation Design, contextualized with the 5 Values previously noted.
 - i. Previously sub-optimal behaviors of the past, can be upgraded in the present, the now.] Labels like gay, lesbian, male-female, "white", other, etc., are just that: labels. Each of us is *unique*. And we are *all* co-equal humans.
 - ii. Symptoms dissolve: war is finally seen as *raw*. We emerge as compassionate humane beings. We care for each other and the planet, which permits our survival: one for All, all for Each.
 - iii. We are safe and secure. We are at ease and full of peace. We serve to the best of our ability for the common good. We are happy and privileged to be alive!
 - iv. We are humble, knowing that beliefs and perspectives are only parts of the whole. We listen to one another. We exhale, process what we hear, update our behavior as we grow.
 - v. Effective laws remind us when we forget. They also remind us of our responsibility to One another.

Attachment 2.1

**As scary as it was for me, in 1972, I did it. How it feels to be in extremis.
Today, we must all muster the courage to succeed together.**

Jump inside of me, as you experience a scary event in my life. Be *me* for a few minutes. This is who we all must be, for us to come to a needed graceful conclusion to *any* project. Consider that you may have forgotten some tools. Accept some additional hints. Immediately and dynamically act. Heal the circumstances. May my experience remind you a path forward with your role as a leader of the State of New York.

I was a Lieutenant – junior grade, the senior most junior officer aboard the NOAA Ship Ferrel, heading southward on the intra-coastal waterway in the spring of 1972 to our next project. The canal is about 80 feet wide, the ship is 32 feet wide. The charted depth is 12 feet. Our draft is 7 feet: 5' to spare, no problem. The wind is coming from the east, about 10 knots, about 11 mph. This is a stiff breeze yet certainly manageable. We are heading south. The front of this research vessel is the equivalent of a huge sail. We are steering *into* the wind to keep heading forward, to keep the 400 ton ship aligned with the channel.

It is 1600, or 4:00 pm, and the Ship's Captain wants to bring the ship alongside at the next possible pier / dock because the winds are expected to increase significantly. We radio to the ship's truck, which is driving southbound with supplies and some personnel. The Captain talks with the Executive Officer, the XO, who is in the truck. One of the men in the truck knows this area very well. He advises that there is a small dock about 4 miles further south, and that they will meet us there.

The wind picks up. It is now blowing us directly onto the west shore. The strength is now about 25 knots. It is now a pretty dangerous situation. How can we to take a 400 ton ship and pull it alongside what *looks like* a dock made of 2 by 4's. And, there's *a final clincher*, just to make it crazy! The Captain says to me: "Mr. Moore, you have the con, take us alongside." Now, the situation is not only crazy: it is *in extremis*. In naval terms, this means that all procedures can be superseded. Survival is primary, and essential. Any action that will work is the correct action. I gulp, having a pretty good hunch of what's about to happen, and say: "Yes, sir. I have the con."

I go to the bridge controls on the starboard wing. The top of the console has two levers, both facing forward, starboard and port, one for each engine. By pushing the lever forward the forward engine torque increases. Pulling it backwards the backward engine torque increases. A 2nd lever, moves for right to left. This controls the bow thruster, the engine which is under the water, in a tunnel through the forward part of the ship. Pushing it to the right, the bow moves to the right. Pushing it to the left, the bow moves to the left. Additionally, there's a lever on the face of the console, about even with my hips. It moves the rudder to the right or left. The rudder responds slowly, yet it accentuates the torqueing of the two engines. I must now control the ship's 3 engine controls and rudder with two hands, my hip, without my mind. My gut has to take over from my past experience. This is what I said "yes, sir" to a few moments ago.

Attachment 2.2

So, here I am, a lieutenant junior-grade, less than 1 year on the ship. I have the con (control) of 400 tons of a ship, 133 feet long, 32 feet wide, 7 feet wide. I am about to walk this ship sideways towards a very rickety wooden dock, with two men from the ship's truck on the dock, able to take lines. The wind is blowing us about 30 knots onto the dock ... not away from the shore, *onto it!* Every bit of training and experience that I have gained in my entire life will now be needed.

I torque the engines starboard astern, port forward. The bow starts moving towards the dock. I move the bow thruster to port, pushing the bow into the wind. Soon, both engines and the bow thruster are near full. I am gently *walking* the ship sideways into the wind. The deck crew has deployed every fender we have to cushion the possible touching of the dock. Other crew members are on the deck, ready to throw lines to the two men on the dock. I now go to near full power on both engines and the bow thruster, to literally overcome the wind and become *apparently motionless* in the water, 2 feet from this rickety pier.

Can I hold this ship against the 30 knots of wind? The two men on the dock receive the lines and place them on feeble bollards. The deck crew tightens each line. In the last few seconds, I'm accelerating the engines & bow thruster, as we now are pulled to the dock. Hand power has literally brought the ship through the last 6 inches as the ship is securely tied to the dock. I am reducing power to all 3 engines, and moving the rudder to *amidship* with my hip. My adrenaline is quite probably everywhere in my body. I am sweating profusely.

Debrief of the Docking

Maybe we should have docked previously: could have, should have, would have ... all were *then* irrelevant! We didn't. We were here, now!. Life presented herself to us. The Captain presented Life to *me*. We as a team must respond perfectly. I had the training and experience, even though I didn't *think* that I did. I was afraid for the safety of the ship, the dock and the lives of the people on the deck and the two on the rickety dock. Life was at stake. Everything had to work perfectly. Everyone had to perform their roles perfectly. We all worked together, or major crap would be thrown in our faces. We succeeded. Everything did work. We were lucky!

Thank *goodness*. Also, thank *God!* This all happened because teamwork, strength and technology all came seamlessly together to create a successful outcome.

Attachment 3
Virtual Testimony – May 11, 2022
Richard Paul Moore – Global Citizen

In '72, I was a Lieutenant – junior grade in the NOAA Corps aboard NOAA Ship Ferrel in Boston Harbor. I was tasked to repair a current meter which showed zero speed. I SCUBA dove down to 40'. The rotor was plugged, with toilet paper. I cleared the rotor. As I finished, human feces drifted past me. I almost threw up, a major problem 40' down.

That year, The Limits to Growth was published. A co-author is Dr. Dennis Meadows. Meadows projected that the Earth would hit an inflection point that would lead to an environmental collapse around 2050.

In '97, Dr. Meadows was a visiting professor at Antioch University-West. He taught System Thinking to our Masters' cohort. He broke us into groups to simulate fishing in the North Atlantic. The groups fought hard to win. The fish stock was diminishing quickly. I loudly spoke up: "Remember, the Tragedy of the Commons!" No luck. Adrenaline won. The fish population was destroyed.

On April 4th, the IPCC said that we have reached a bifurcation point: either we significantly reduce pollution in next 3 years, or, Life as we know it, will not recover.

This CLCPA Scoping Document, in chapter 9, Pages 72-73, shows that the proposed CO2e reductions are 14% *below* the 2025 IPCC goal and 34% - below the 2030 goal. Problem! We now need a step- by-step strategy to accomplish what the IPCC states.

I will submit additional comments. We are presently *in extremis*. We must boldly act *now*. There is no other choice.

Thank you.

Attachment 4.1

May 11, 2022 – Virtual Hearing Summary: two protagonists: the public AND the system

Presenters: 85 speakers - 74 individuals – get going! 11 orgs – go slowly. Who shall we choose?

Hows were addressed and solutions were proposed:

- Prioritize, specific regulations that are Climate Act stated
- Reduce emission. Decarbonize the grid. RNG from Methane does not address problem.
- Change the Dairy Herds' diet. Eliminate creation of the methane.
- Act With truth, courage and real, tangible solutions.
- Reduce administrative procedures which preclude forward movement.

Whats that were proposed needed to be integrated into the document:

- There is no Plan B. Farmers
- Buildings
- The intangibles – quality of life (air, water, noise, etc.)
- Fair and Just transition
- Defund fossil fuels.
- Reliability of power distribution during the transition.
- Implement the Clean Fuel Standard.
- Trees do not sequester carbon until typically 15 years of age: therefore preserve forests.
- There are players who do not want to play, who actually want to subvert the process. Design counters to their possible behaviors into the solution.
- High speed chargers are essential to a successful migration to EV's.
- Geothermal is more help during cold winters than heat pumps, for energy balancing.
- K-12 Education needs inclusion of experiential learning of global trends of climate and what can and must be done.
- Employment transition program needed.
- Carbon Pricing is needed with a carbon dividend delivered to disadvantaged.
- Cradle-to-Cradle designing in all entities.
- Recycling that fines products which have parity products that are recyclable.
- Service Providers must modify billing to better educate the public about the % of delivered fuel that is Fossil fuel, how much is renewable, etc. Let the bills teach the consumers of their needed actions.

Whens that were mentioned about the timing to be implemented:

- Do it *yesterday* – (43), meaning as soon as physically possible.
- Do it as it can be done, while maintaining system integrity and continuity. – (6)

Overview

We are *in extremis*. This evening's virtual hearing displays to two aspects of the bifurcation. If we go with only with status quo solutions, we will fail. When we add out-of-the box solutions, we become amazingly bold, take all possible scenarios and blend them into a solution that we can all appreciate and respect.

I have not caught all of the threads of the *Gordonian Knot* of challenges. We have less than 3 years to start major dissolution of the CO₂e in the atmosphere. With a *both-and* strategy, the remaining years until 2050 will be successful. Quite possibly, we will arrive much sooner with no holds barred!

Attachment 4.2 – Synthesis of all 85 responses

Virtual Input to CLCPA, 5/11/22

4:30 pm - 8:15 pm

Attendees: 85 speakers, 74 citizens, 11 organizations

| Groups | Total # | Single Ple | Orgs | For | Against | Significant Comments |
|---------------|-----------|------------|-----------|-----------|-----------|--|
| 1 | 1 | 1 | 0 | 1 | 0 | Scenario 3, There is no Plan B |
| 2 | 1 | 1 | 0 | 1 | 0 | Education & Public Involvement Campaign |
| 3 | 3 | 3 | 0 | 3 | 0 | Split-Incentive Bills, Farmers |
| 4 | 3 | 2 | 1 | 2 | 1 | NG Leakage We can't be partly responsible. Greed & Power. |
| 5 | 5 | 5 | 0 | 4 | 1 | Halt to proof of Work, Doesn't meet NY & Fed Standards |
| 6 | 2 | 2 | 0 | 2 | 0 | Alternate Manure Management, Severe Asthma |
| 7 | 2 | 1 | 1 | 2 | 0 | Strongest Possible phase-out of fossil fuel |
| 8 | 4 | 2 | 2 | 3 | 1 | Deal with the intangibles too, Urgency |
| 9 | 1 | 1 | 0 | 1 | 0 | --- |
| 10 | 4 | 1 | 3 | 4 | 0 | H2 gas relies on Fossil Fuel |
| 11 | 1 | 0 | 1 | 0 | 1 | Full assessment of True costs, Affordability & Reliability? |
| 12 | 3 | 0 | 3 | 3 | 0 | Fossil Fuel worker transition. Home ownership impact |
| 13 | 2 | 2 | 0 | 2 | 0 | Clean Fuel Standard, Dairy Manure, RNG to CA ++ profit? |
| 14 | 4 | 3 | 1 | 3 | 1 | RNG-safe & reliable, ↑Cost for consumer? Price CO2. |
| 15 | 2 | 1 | 1 | 2 | 0 | Believe in CAP. Sheep under solar arrays. |
| 16 | 4 | 2 | 2 | 2 | 2 | Make mandates explicit & enforceable |
| 17 | 3 | 1 | 2 | 3 | 0 | Decades of misinformation. Outdoor recreation. |
| 18 | 0 | 0 | 0 | 0 | 0 | --- |
| 19 | 4 | 3 | 1 | 4 | 0 | Train energy workers. Carbon Dividend. Bio-ethanol. |
| 20 | 2 | 2 | 0 | 2 | 0 | A very short window: 30 mos. Hopeful & terrified. |
| 21 | 0 | 0 | 0 | 0 | 0 | --- |
| 22 | 1 | 0 | 1 | 1 | 0 | Not meeting IPCC standards for 2025 & 2030. Measure CO2e. |
| 23 | 2 | 2 | 0 | 2 | 0 | Counter-disinformation |
| 24 | 1 | 0 | 1 | 1 | 0 | --- |
| 25 | 0 | 0 | 0 | 0 | 0 | --- |
| 26 | 2 | 0 | 2 | 1 | 1 | Ban N2 fertilizers. Transportation. Keep RNG in NY. |
| 27 | 1 | 1 | 0 | 1 | 0 | --- |
| 28 | 2 | 2 | 0 | 2 | 0 | Fully fund CLCPA. Implement & Stagnate? Coal Miners |
| 29 | 2 | 1 | 1 | 1 | 1 | Religion in action for good |
| 30 | 2 | 2 | 0 | 2 | 0 | False narratives to public & workers. ↑ Health Guidelines |
| 31 | 3 | 3 | 0 | 3 | 0 | Noxious Pollution Canal, abandoned the wreckage |
| 32 | 2 | 2 | 0 | 2 | 0 | Scarce are earth elements, ↑ Environmental Justice |
| 33 | 2 | 1 | 1 | 1 | 1 | Flexible approach? Truth, Courage, Solutions. |
| 34 | 4 | 3 | 1 | 4 | 0 | Not for Profits versus profit motive. K-12 Env't'l Educ'n. |
| 35 | 2 | 2 | 0 | 1 | 1 | Data driven decisions |
| 36 | 3 | 2 | 1 | 3 | 0 | Short term projects & results needed now. |
| 37 | 1 | 1 | 0 | 1 | 0 | Scenario 3, Scotland wind farms give % profits to cmmnty. |
| 38 | 0 | 0 | 0 | 0 | 0 | Grid Modernization. |
| 39 | 1 | 0 | 1 | 1 | 0 | --- |
| 40 | 0 | 0 | 0 | 0 | 0 | --- |
| 41 | 1 | 1 | 0 | 1 | 0 | Clean Fuel Standard. ↑Bike, bus, rail |
| 42 | 0 | 0 | 0 | 0 | 0 | --- |
| 43 | 1 | 1 | 0 | 1 | 0 | 100 yr old building, no-one knew how to upgrade NG |
| 44 | 1 | 0 | 1 | 1 | 0 | Need clear, practical guidance. Regulations are conflicting |
| Totals | 85 | 57 | 28 | 74 | 11 | Excludes Group 45, Time ended. Written comments sent. |

Attachment 5

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June 10, 2022

CLCPA Scoping Committee
NYSERDA

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Ref: Comments, CLCPA Draft CLCPA Scoping Plan

Dear CLCPA Scoping Committee,

Thank you for your dedication to creating a plan for our combined survival. You have perfectly shown the dire consequence which will occur without immediate, intentional action.

I have two serious concerns with the present Scoping Plan.

The April 4th statement from the IPCC stated significant progress is needed in reducing CO₂e's within the next 3 years. The Plan does not address this IPCC statement and therefore has no provisions to monitor progress in reaching the IPCC goal. Specifically, Tables 7-9 on Pages 72-73 of Chapter 7 of the report indicate that the Plan's 2025 and 2030 goals are 14% and 34% short of the corresponding IPCC requirements.

There needs to be an Implementation Design added to the Scoping Plan to attain the IPCC goals. It must include a near real-time scorecard to display actually reduced CO₂e's, as compared with the projected CO₂e's of the Plan. Please accelerate CO₂e reduction and create a timely, well-conceived Implementation Plan with Monitoring and Management to show how New York's actions are progressing toward meeting the required results in the time available.

Thank you for inviting our input. I hope this is useful.

Respectfully offered,



Richard Paul Moore

Attachment 6.1

Chapter by Chapter Comments – Draft Scoping Document

Chapter 1

- No comments. I'm guessing an elegant Executive Summary

Chapter 2

- Page 7: Replace “immediate action to aggressively” to “act aggressively within the next 3 years”.

Chapter 3

- Page 14: Replace “at least every 5 years” to “every 3 years”
- Page 14: Does the RGGI Cap’s gradually lowering CO2 emission limits correspond at all with the NOAA Charts of CO2e in the atmosphere reducing to a certain amount? And, if so, what is that number? And, should it not be continually declining to preindustrial?
- Page 15: Has the major problem of firefighters with fires in EV’s been considered and has corrective action been taken prior to this mass change?
 - **As I understand it:**
 - Massive amounts of water, (40–60 thousand gallons), are required to extinguish one E/V fire.
 - The “Jaws of Life” can *not* presently be used to extract a person stuck inside of an E/V on fire.
- Page 16: Will the design options of **Attachment 8** give you a mechanism to control non-state entities?
- Page 20: What is the status of this action: The Cayuga Farm, Methane, RNG – PSC Case 21-G-0576? Will CLCPA provide the final nail in this coffin, just as it did to the recently with the DEC, which rejected the air permit for cryptocurrency mining facility on Seneca Lake. Have you noticed that Greenidge is the involved entity in both Cases? I am dearly hoping that CLCPA will prevail, mainly because of the commitment of you, the Scoping Committee.

Chapter 4

- Section 4.1 suggests that natural carbon sequestration is the only real way to sequester. Please refer to our comment in Attachment 4 about seagrass being more than 35 times more effective than trees. Can New York expand seagrass in any of its geography? Or possibly invest in other State’s seagrass growth? Since this is a minor aspect of methane pollution in New York, it may not need to be dealt with so intently.

Chapter 5

- Page 31: The 4 pillars: “fundamental strategies above, (2) Climate justice, (3) a just transition, and the (4) benefits to public health” are superb.
- Is an interim strategy of people miles per gallon a possible marketing strategy, in the interim, to better reduce consumption now? I know this is a variation of carpooling strategy. But the metric, with 4 people in a car, carpooling of driving together to a family function, becomes obvious at not 20 mpg, for 4 vehicles, but 80 mpg for 4 people in 1 vehicle. Possibly, there could be a financial incentive program for this behavior change.
- I have watched a man retrofit a gas powered car to an electric powered car. Two follow questions:
 - Could the large transportation companies be incentivized to permit this function for their specific brands?
 - Could a BOCES program teach younger auto mechanics students this function, so that the transition could be done more grass roots.
- A **CONCERN** is also raised in the Book, How the World Really Works by Vaclav Smil about the resources required to create an electric car. I hope you have done a CO2e spreadsheet for an electric car’s creation, multiplied those amounts by the number of EV’s you expect to have, and looked at the capacity of the Earth to support them.

Chapter 6

- Looks great.

Attachment 6.2

Chapter 7

- No comment.

Chapter 8

- Looks great.

Chapter 9

- Page 71-73: I used some simple interpolation to come up with two numbers:
 - Scoping document is 14% below the 2025 IPCC numbers on April 4th
 - Scoping document is 34% below the 2030 IPCC numbers on April 4th
 - If my interpolations are even close to correct, we are dead in the water in 2025, meaning on a downward spiral that is irrecoverable.
 - This scares the heck out of me!

Chapter 10

- Page 76: There's a distinct possibility that the growth trend may NOT continue over time. In Attachment 9, all 6 books suggest this assumption is incorrect .

Chapter 11

- A possible **BLIND Spot**: If the transportation sector becomes a service industry, and the independence issue in Americans is somehow transformed, then the number of cars would probably be 10-20% of what is right now.
- Consider the statistic that an average car is parked for something like 20 hours per day, average. This would be catastrophic to the auto industry. Has any forward thinking research gone into a win-win for everyone?

Chapters 12-24

- I ran out of time to dig into them.
- One comment: **Chapter 13**
 - The billing of NYSEG is NOT transparent in showing % of renewal fuels consumed, or how to be a better consumer. Its bill could be an educational tool.

Attachment 7.1

Unused resources and additional obstacles that can accelerate change, if and only if, positive and negative impacts are pre-designed and no unintentional side effects

1. **Possible Electrocutation to Firefighters** when Electric Vehicles in accidents.
<https://www.dailymail.co.uk/news/article-2254602/First-responders-risk-electrocutation-hybrid-electric-cars-accidents.html>
2. A [solar geoengineering technique](#) known as **stratospheric aerosol injection**, only instead of a pigment, engineers would spray a sulfate that bounces some of the sun's radiation back into space, an attempt at cooling the planet. Is a DARPA R&D Project necessary as a parallel strategy to cool the earth intentionally, as we migrate forward with our energy reduction scenario? (WIRED25)
3. **The Union of Concerned Scientists opposes the deployment of solar geoengineering** because it poses unacceptably high environmental, social, and geopolitical risks. Instead, UCS supports continued modeling research, observational studies, and strong, inclusive public participation in decision-making over whether and how further research should include possible small-scale outdoor experiments.
<https://www.ucsusa.org/resources/what-solar-geoengineering>
4. Resource reduction and Health Quality increase of a systematic lowering of food usage on the **Food Continuum** from significant red meat eater towards vegetarianism. See Diet for a Small Planet - Frances Moore-Lappe.
5. Seagrass absorbs x35 more than trees.
<https://finisterre.com/blogs/broadcast/underwater-update-autumn-2021>
6. Permafrost and warming Peat: the ticking Time Bombs <https://eos.org/articles/the-ticking-time-bomb-of-arctic-permafrost>. Peat is an equivalent problem in the Amazon Basin.
7. The world can't exist without these four ingredients: They all require fossil fuel. Vaclav Smil - May 12, 2022
 - a. TIME extractions of the Book - [HOW THE WORLD REALLY WORKS](#)
 - b. <https://time.com/6175734/reliance-on-fossil-fuels/>
 - c. "The four pillars of modern civilization: cement (concrete) , steel (buildings, mass transit), plastics (medical, everywhere) , and ammonia (nitrogen fertilizers) are needed in larger quantities than are other essential inputs."
 - d. Wind Turbines – "These turbines would generate truly green electricity only if all of these materials were made without any fossil fuels." "currently there are no alternatives that could be deployed immediately to displace large shares of existing global capacities: their development will take time."
 - e. Electric Cars – "highly energy-intensive material dependencies are emerging and electric cars are their best example A typical lithium car battery weighing about 450 kilograms contains about 11 kilograms of lithium, nearly 14 kilograms of cobalt, 27 kilograms of nickel, more than 40 kilograms of copper, and 50 kilograms of graphite—as well as about 181 kilograms of steel, aluminum, and plastics."

Attachment 7.2

- f. Overview – “And until all energies used to extract and process these materials come from renewable conversions, modern civilization will remain fundamentally dependent on the fossil fuels used in the production of these indispensable materials. No artificial intelligence designs, no apps, no claims of coming “dematerialization” will change that.”
8. The predictable shortages of, or access to, minerals to grow our way out of this challenge. (See Fareed Zakaria, Global Public Square, May 8, 2022).
9. Behaviors that sabotage attainment of the goal of human survival to the profit motive and shareholders must be undone. (See Frontline shows on Big Oil)
10. Finland has prototyped the use of sand, stored in a special silo, heated by solar and wind to 500°C to store heat. This is an amazing opportunity for an inexpensive, effective storage *battery*. See 7/5/2022 – BBC News or Amanpour and Company.

Attachment 8.1 Legislative Vocabulary Upgrades

1. The values of Attachment 1 are invoked as the standards of operation of the State and of all other entities who perform activities with the State. I enumerate them here again:
 - a. Do no more harm and Undo what harm has been done,
 - b. Synergize all of our data and experience into the best solution,
 - c. Create a safe, gentle and successful landing in 2050,
 - d. Be transparent, honest and value driven with one another throughout, and
 - e. All people must share in the benefits. That is, poor people can't afford to pay attention to sustainability. They have to get food and fuel right now, at any cost. This is why the Environmental Justice component is so critical.

2. New York State is a not only a microcosm of the planet, it is a holographic image of the planet. Hence, New York State can legislate as if we are the planet.
 - a. The cost of doing business must be internalized as the environmental costs borrowed from the planet.
 - b. The cost of the loan is the direct remediation of that exact amount of CO₂e's borrowed.
 - c. The apparent manufacturing free resource is eliminated.
 - d. The Tragedy of the Commons is explicitly precluded by internalizing the cost of the previously borrowed resources at the same time that they were borrowed.

3. Authorization to exist, as an entity, must now meet newly legislated regulations to continue activities within the State, as follows:
 - a. The Board of Directors (or equivalent) shall have a voting member who is a virtual member, the Planet.
 1. Only this member has the only veto power over decisions by the Board.
 2. The veto is invoked, possibly delivered by the Entity's Ombudsman, when the needs of the planet are not being served.
 3. The Planet is the primary stakeholder. Profit is considered only after a net zero impact to the planet.
 - b. Corporate goals are expanded to meet the new legislation's higher standard of operation:
 1. This probably starts with a cradle-to-cradle process flow analysis to create a net-zero environmental cost in all activities. This process will minimize resource requirements and increase potential profits. Concurrently, it serves the survivability of Life on this planet.
 2. All environmental costs are accounted for in the budgetary and environmental ledgers of the entity. Once they are measured, they can be costed. Once they are costed, and they can be repaid. Apparent gross income is reduced to an honorable net income. The repayment, if not possible in reduced production costs, can be a tax paid to the appropriate levels of governments to pay for the cost of environmental remediation.
 3. The profit available to the entity is now directly related to their proactive movement towards one goal: planetary transformation, with fair profit.
 4. Any entity has 6 months to transform from their present context to the one coherent with the State of New York. Elsewise, they are no longer permitted to perform their activities within New York State.
 5. Since we have such a global GDP, our change of acceptable behavior would automatically transform the planetary model.

Attachment 8.2

4. Two aspects of the balance sheet are to be recorded.
 - a. One is the money, as usual.
 - b. The end aspect of the balance sheet is the CO₂e, using the standard accounting principles.
 1. The left side of the CO₂e are the Accounts Received is the CO₂e actually borrowed from the Planet.
 2. The right side is the Accounts Payable, the amount paid (in CO₂e's) for the loan provided by the planet.
 3. The bottom line is that AP = AR, the exact same standard used in accounting principles.
 - a) The net result is NO drain on the planet.
 - b) There are no longer carbon trades.
 - c) There is literally carbon reductions accomplished to equal the CO₂e cost of production of the entire entity
5. Envision collaboration of all State Entities, in living these same 5 Values.
 - a. Each level, agency, department, communicates with their parallel entities, across the State, to permit consensus, focus, and action plans. There are parallel entities in each subdivision.
 - b. Consider a spreadsheet, a database or a relational database. Entities are rows in the file. Each stovepipe could be working towards the highest and best. Or, they could be only focusing through the lens of short term profit.
 - c. Government requires the same ethical values of its colleagues as they do of themselves. It also demands 100% transparency in the repeated release of updates, which complete the columns in the spreadsheet, which show the reality of the progression towards net-zero.
 - d. Each entity is induced into a self-reflective process, through a Process Flow Analyses, to understand their processes. A Hierarchical-Input-Process-Output would be a good label. Because, the hierarchical refers to the redefined values that must be inherent in the activities of the entity.
 - e. The reflection and implementation is completed by the entities. The results are monitored is completed by government.
 - f. Finally, the best-of-the-best procedures are easily upgraded throughout the entire consensus – organized system, to accelerate our movement towards our one goal: the survival of Life on Planet Earth

Summary

All of the concerns, symptoms, and problems dissolve, because New York State has explicitly redefined the rules of the road.

Attachment 9
Six Book References
in your finalization of the Project Plan and Implementation Design

1. **The Limits to Growth** – Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, and William W. Behrens III, representing a team of 17 researchers, 1972 endogenous versus exogenous model design, two recent validations of their design and timing.

2. **Interview of Dennis Meadows**, February, 2022, Richard Heinberg - Post Carbon Institute
<https://www.postcarbon.org/dennis-meadows-on-the-50th-anniversary-of-the-publication-of-the-limits-to-growth/>

3. **Progress & Poverty, Henry George, 1879** - Strategic economic reconceptualization.

4. **Your Money or Your Life**, 9 Steps to Transforming Your Relationship with Money and Achieving Financial Independence, 1992, Revised 2018 - Joe Dominguez & Vicki Robbin, What is enough?– a frame of Life from *enoughness* to happiness.

5. **ReGeneration - Ending the Climate Crisis on one Generation**, Paul Hawken , 2022– A daring and well documented book that describes nature-based, healing opportunities which are probably not included.

6. **How the World Really Works** by Vaclav Smil, Major implications about resource requirements of the earth, in order to provide what is projected in the “Go green” /Green New Deal projects.