**The Green New Deal:**

**What Makes It Necessary, What It Is, and How We Can Get It**

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*The following text served as the content for the slide show with the title above. Here is a link to the presentation: http://ouleft.org/wp-content/uploads/Green-New-Deal-2.pdf*

The meaning and content of the Green New Deal has many mothers and is thus defined, praised, and critiqued in different ways. Here we will begin with one big picture, a very big picture, and gradually zoom in for the component parts and details.

We’ll start with the huge fusion reactor at the center of our solar system, known as The Sun. It’s been radiating huge and more or less steady amounts of energy outward in all directions, for billions of years past and billions more going forward.

The Sun’s radiation reaches all the planets and beyond. Those closer in get more for their size; those farther out get less. We’re the third planet out. The second, Venus, gets more than us and is covered with dense clouds. Over 800 degrees Fahrenheit on the surface; it’s not suitable for life. The fourth out is Mars, which gets far less. It has a thin atmosphere with few clouds and small pockets of surface ice and water. If it has life, it’s likely primitive and near the sparse water beneath the surface.

This puts our planet, Earth, in a ‘Goldilocks Zone’—not too much radiation, not too little—so we have abundant water and life. How and why? If our planet simply reflected back to the Sun all the radiation that hit it, we would be an iceball planet with little or no life. Why aren’t we? Venus tells the story. It has a thick, dense atmosphere, rich in carbon dioxide. Thus its clouds reflect back and contain the Sun’s radiation, making the surface too hot. As mentioned, Mars is too thin, thus too cold. We have an atmosphere in between allowing for lots of liquid water, not too much steam, not too much ice. That’s why we’re Goldilocks—not too hot, not too cold.

The question now is, can we stay that way? First, we haven’t always been this way. The sun’s radiation has varied for several reasons, starting with its own heating up. Another reason is the creation of the Moon, meaning wild variations all around. Still another is our elliptical orbit, meaning our distance from the Sun varies. And yet another is our tilted axis, meaning seasonal variations.

The early Earth thus went through a superhot Venus-like period, followed by two or three ‘Iceball Earths’ before multicellular life even took off. Even so, there were several partial ‘Ice Ages’ before things settled down for our sakes, or at least appeared to do so. In any case, for at least the last 100 thousand years, our atmosphere became another Goldilocks zone, with just enough of nitrogen, oxygen, carbon dioxide, and other rare gases to allow for a surface climate and habitat suitable of the emergence and thriving of our species, ‘the human race.’

Can we stay in this second Goldilocks zone? Good question. It depends on the levels of carbon-related gases—mainly carbon and methane—present in our atmosphere. If there’s too much, we’re off to a greenhouse-overheated Venus-like Earth. The planet doesn’t care one way or another what we do to it. The Earth will endue, just as Venus and Mars both endure. But we do care whether the atmosphere permits a humane habitat to endure.

**The Hockey Stick Curve**

Fo more than 10,000 years, the amount of CO2 in the atmosphere has wavered around 270 parts per million. Then in the early 1800s, it suddenly lurches upward to 390 ppm into the 2000s. The cause of the rapid 200+ year leap is fairly obvious. It coincides with the industrial revolution, and the rapid worldwide increase in burning coal, natural gas, and oil. A secondary source is nitrous oxide from the use of chemical fertilizers. A third source is a ‘feedback loop,’ meaning rising temperatures in cold regions have caused a thawing of the ‘permafrost,’ or frozen earth rich in methane. These ‘greenhouse gases’ all go somewhere. Some CO2 is absorbed by trees, releasing more oxygen, which is good. But most simply go into the atmosphere (we can see it in the ‘smog domes’ over cities when we’re on airliners) increasing the blanket-effect warming the air, water, and ground. These increasing temperatures are facts, not theories. Climate science uses theories of varying degrees and complexity and accuracy to explain and make projections based on these facts.

What happens when the air warms? First, a lot of simple stuff. Snow and ice melt. Surface water warms. Sea levels rise. Second, a lot of freaky stuff too. In some places, it stops snowing. In other places where it never snowed, it starts snowing. Wind patterns change, and storms become more intense. Wildfires become more frequent (another feedback loop) and ocean currents shift. This is why we no longer talk simply of ‘global warming’ but climate change (overall the Earth warms, but with new variations over local time and place).

Most important for us is the impact of climate change on human habitats. Many millions of people live close to the sea, living on land only a few feet or so above sea level. They get their livelihoods from farming or fishing suited to these locales. But rising sea levels and increasing storms are driving them permanently to higher ground, setting in motion mass migrations seeking food, work, and shelter, migrations that will most likely increase in size and suffering. Salt water moving inland also destroys crops not suited to it.

These changes are worldwide, and not limited to the poor of the global south. Midwestern farmland in the US is facing unusual drought. Cities like Miami have streets underwater much of the day. Air conditioning in modern cities and office buildings demands increased energy (another feedback loop). Poisonous ticks from deer and other insects in temperate forests explode in number due to mild winters, infecting pets and humans.

All the plans to deal with these interconnected crises, as a whole or in select batches, can be called ‘The Green New Deal.’ They all have a common starting point, to curb or entirely stop the use of carbon-based resources for the production of energy, and to begin a rapid transition to renewable ‘green’ energies. These include photovoltaics, where sunlight is directly turned into an electrical current, and solar mirror concentrators which boil water or some other fluid to turn electrical turbines. Many energy sources are also indirectly solar due to the Sun’s interplay with the Moon and the Earth’s tilted axis, which stores immense energy in the rise and fall of waves, the ongoing wind currents, and evaporated water becoming clouds and then rain, which feeds rivers and hydro-electric power stations.

The good news is that the technologies to produce energy from renewable keeps getting more productive and less expensive. The not-so-good news is that more are being developed in China and Denmark than in the US. So far, US green energy projects have been growing and succeeding, but piecemeal, without a national green energy policy.

Even more important than particular wind farms and solar arrays are the new infrastructures needed to connect them all of a global scale, the Smart Grid. The current national and regional transmission grids for electricity are old and often malfunctioning. As a result, in the US alone, some 6% of the power transmitted is lost, an amount equaling the output of some 200 coal-fired plants, along with the carbon spewed into the air. Moreover, the power in the current grids only flows in one direction. What makes a Smart Grid smart is that it flows two ways, with a feedback signal that can use the internet. This enables every home, factory, hospital, or school to have an interactive meter to select certain times of day to use of heavy equipment when overall loads of the system is lighter. Balancing loads also needs to be done globally, since half the planet is dark at any given time, and while the wind is always blowing somewhere, it doesn’t blow everywhere all the time. Finally, construction of the Smart Grid will require enormous amounts of labor, making for green jobs of all sorts—unskilled, skilled, and high design—all at once in all countries. An employment program on this scale requires union jobs at a living wage, together with Medicare and college opportunity without tuition paid by the student-worker.

**Energy Is only the first part**

The Green New Deal is about more than renewable energy; it’s also about what energy is used for, both green production and green consumption. The core idea of green production is “Zero Waste,’’ meaning that to the extent possible, all inputs (raw materials) are someone else’s byproducts (waste), and that you byproducts are either retrieved for reuse or becoming another’s raw materials. For example, much of the aluminum used to make new products comes not from mining bauxite, but from recycled aluminum cans and other aluminum ‘waste.’ The same goes for steel, with the crushed steel car parts from salvage yards being melted down and reformed, rather than make steel from iron ore, limestone, and coke. Waste wood from building sites is also formed into new furniture.

The key is high design for building re-use into the product. One example is a manufacturer of carpets for major office buildings. The firm decided not to sell carpets, but to sell a ‘floor covering service.’ When the carpets were worn, or a new renter wanted something different, the factory retrieved the old carpets, deconstructed them, cleaned the fiber, and made new carpets from the old. Another recommendation was made to Ford not to sell cars, by ‘transport service packages.’ A customer could lease any combination of vehicles—mini-vans for the kids, teeny cars for getting around a city, RVs for vacations—and change the package as needs changed. Since the vehicles always bellowed to the factory, there was an incentive for quality and durability. Mass public transit could be part of the package too. The desired green aim is to do more and better with less.

**Turning agriculture green again**

Farming on the scale of US agribusiness is an ecological disaster that can’t be properly sustained. It destroys the topsoil to the extent that a good deal of it from the Great Plains in now silt in the Mississippi Delta near New Orleans. Making it productive requires ever-great use of chemicals giving off greenhouse gases. And the reduction in crop varieties harms to their nutritional benefit.

Permaculture is a holistic, organic approach to farming that works best of farms on the scale of those worked by large families or small coops, especially when linked to local farmer’s markets. ‘Slow Food’ and ‘Local Matters’ options to ‘fast food’ can save entire Latin American forests from being destroyed for the sake of sugar-and-salt-laden mass-production hamburgers.

**Green housing in green cities and towns**

One indication of the anti-ecological dimension of neoliberal capitalism in the US is the wreckage of major cities throughout the Rust Belt as well as older industrial centers in New England and the South. Their replacement by spawling ‘ring and edge’ cities in the West and Southwest are newer, but a still centers of irrational design and waste. In addition to new green energy facilities, nearly every US city requires a revamping of its water and sewage systems, and a halt to sprawl producing transportation systems based on the private automobile. The Flint, Michigan crisis with intentionally designed use of poor water that turned out to be poisoned is only the tip of the iceberg of far deeper problems everywhere.

A component of the Green New Deal is the redesign and recovery of urban community life, giving priority to the health and needs of all residents. This would include the cohousing coop projects, the tiny house projects (especially for the homeless), the rehabilitation of structurally sound housing, and along with new and refurbished schools, hospitals and recreation facilities and areas.

**Innovation matters**

The founder of modern ecological thought is R. Buckminster Fuller, popularly known for his invention of the geodesic dome. Fuller divided the universe into two: energy (which included mass) and know-how. The first was always conserved, even if a vibrant city became a slum. The second always grew, and the more one used it, the more it grew and the better it got. These two points being true, the wealth of the human race could be vastly advanced and more evenly distributed, so long as know-how could grow toward infinity and be accessible to all. Herein, he argued, was the role of high design in solving the climate crisis and many others.

The Green New Deal is being introduced in the US Congress by Alexandria Ocasio Cortez (D-NY), who is also a member of Justice Democrats and the Democratic Socialists of America. So far, it serves as the voice of a militant minority, but one seeking to become a progressive, GND majority. And at this point, we have yet to win over the Dem centrist leadership in the House, let alone a veto-proof majority in both houses.

What this means is a tough fight. We have to win GND majorities at all levels—metro and county, state legislatures and so one. We rarely gain at the top what we have not already consolidated at lower levels. So we build strong GND coalitions and political instruments in our base communities and use them for both mass education and mass direct action campaigns. Public opinion is beginning to change rapidly on this matter, even as reactionaries would deny or thwart it, and others would derail it with half measures. A majority of voters is within reach. Also important is an ally in high places. A sector of finance capital, both in the US and worldwide, has decided to brush aside all the ‘fake science’ narratives. It prefers firmer foundations for investing, understanding that a catastrophe is in the making, and there in money to made funding the vast GND energy and industrial infrastructure.

One counter-argument we constantly hear is ‘we can’t afford it.’ This is fundamentally wrong and rooted in a flawed version of neoliberal economics that uses a ‘family budget’ model to describe a sovereign state and its fiscal policies. The two are completely different. The US Treasury can pay whatever bills needed for this necessity for our survival, especially since the funds will be deployed as generators of new wealth and expanded revenue streams going forward. If reduced deficits are desired, tax relief for the top one percent can be rescinded, caps can be removed from FICA, military budgets can be cut, wars can be ended, and pure speculation on Wall Street can be taxed.

What we truly can’t afford is to continue ignoring or downplaying this critical problem. Wedo so at great peril, to ourselves and those who come after us.

**Summing up: seven core points**

**Transition away from burning carbon and uranium to energies from the Sun and Moon**. This will slow down, and hopefully, stop and reduce CO2 levels. Build the new hardware required. Plant trees.

**Distribute all energies worldwide by building the new transnational Smart Grid**. This will conserve power and make it accessible to all.

**Redesign and rebuild industries for zero waste.** Longer-lasting, higher quality stuff made with less energy.

**Transition from agribusiness factory farms to organic, sustainable family-sized farms.** Make crops more regional to allow for getting many foods locally.

**Redesign new housing and retrofit existing stock** for lower energy, better materials, and thriving communities.

**Increased innovation and high design** for all products and services.

**Curb the production of poisons toward zero**, and remove pollutants from human consumption.