

The Best of All Possible Futures: Community Action Gets Real About Adapting to Climate Change



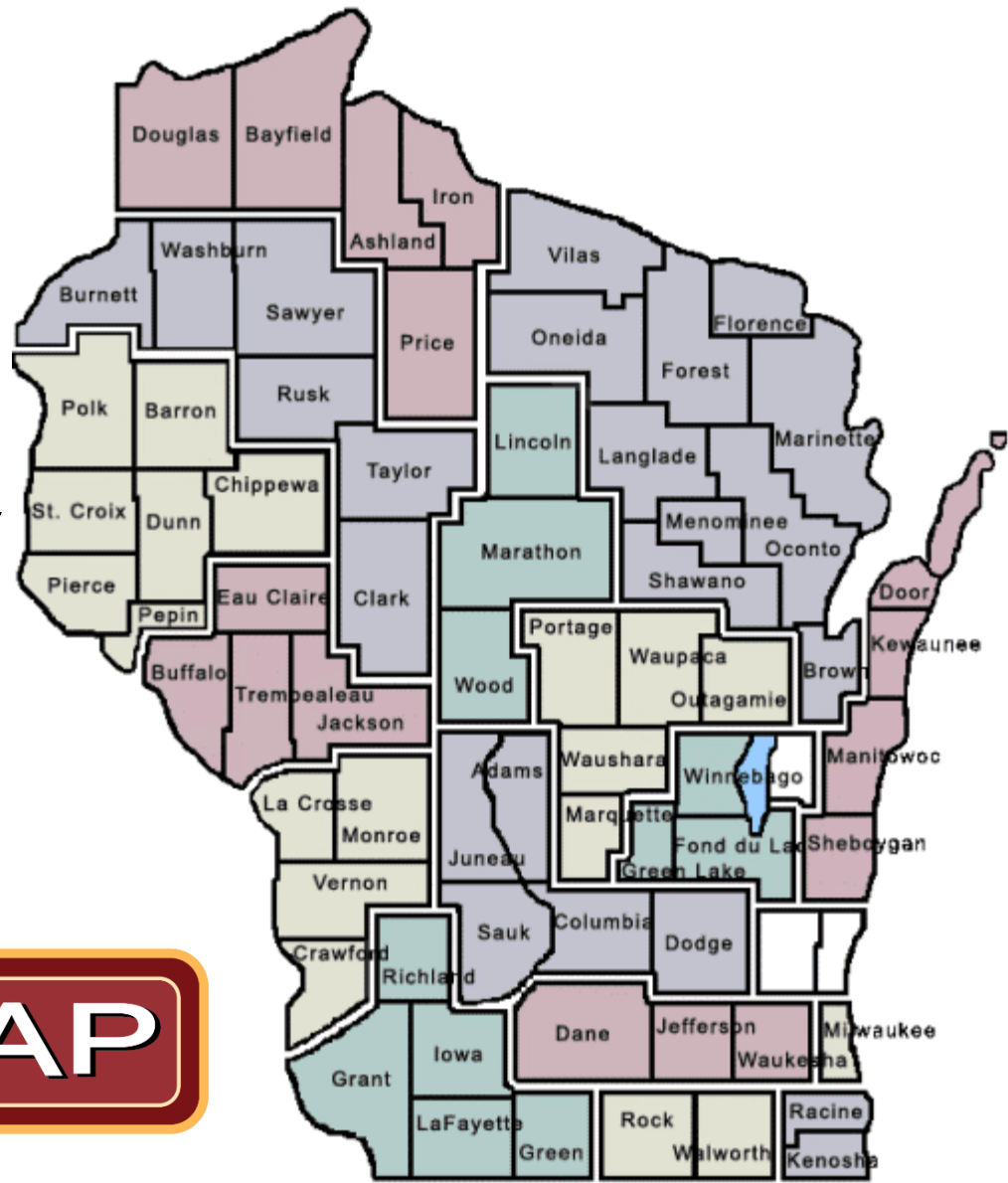
Poverty Matters

September 28, 2023

Peter Kilde, CCAP

Presenter


I'm from here




WEST CAP


Where we do this.....



 **1300**
RESIDENCES

Recognized by the Governor's Blue Ribbon Commission on Rural Prosperity in 2020, these 50 all-electric apartment homes get much of their energy from 1300 Residences' 580 rooftop solar PV panels and three Smartflowers in the yard. West CAP and Gerrard Corporation dedicate the energy cost savings and environmental benefits of this project to those who call this place home, to the community of River Falls and to the future we all share.

 **WEST CAP**

 **GERRARD**
CORPORATION



Which got us this.....



1300 Residences

River Falls, WI

WINNING CATEGORY:
**GREEN & HEALTHY
HOUSING**



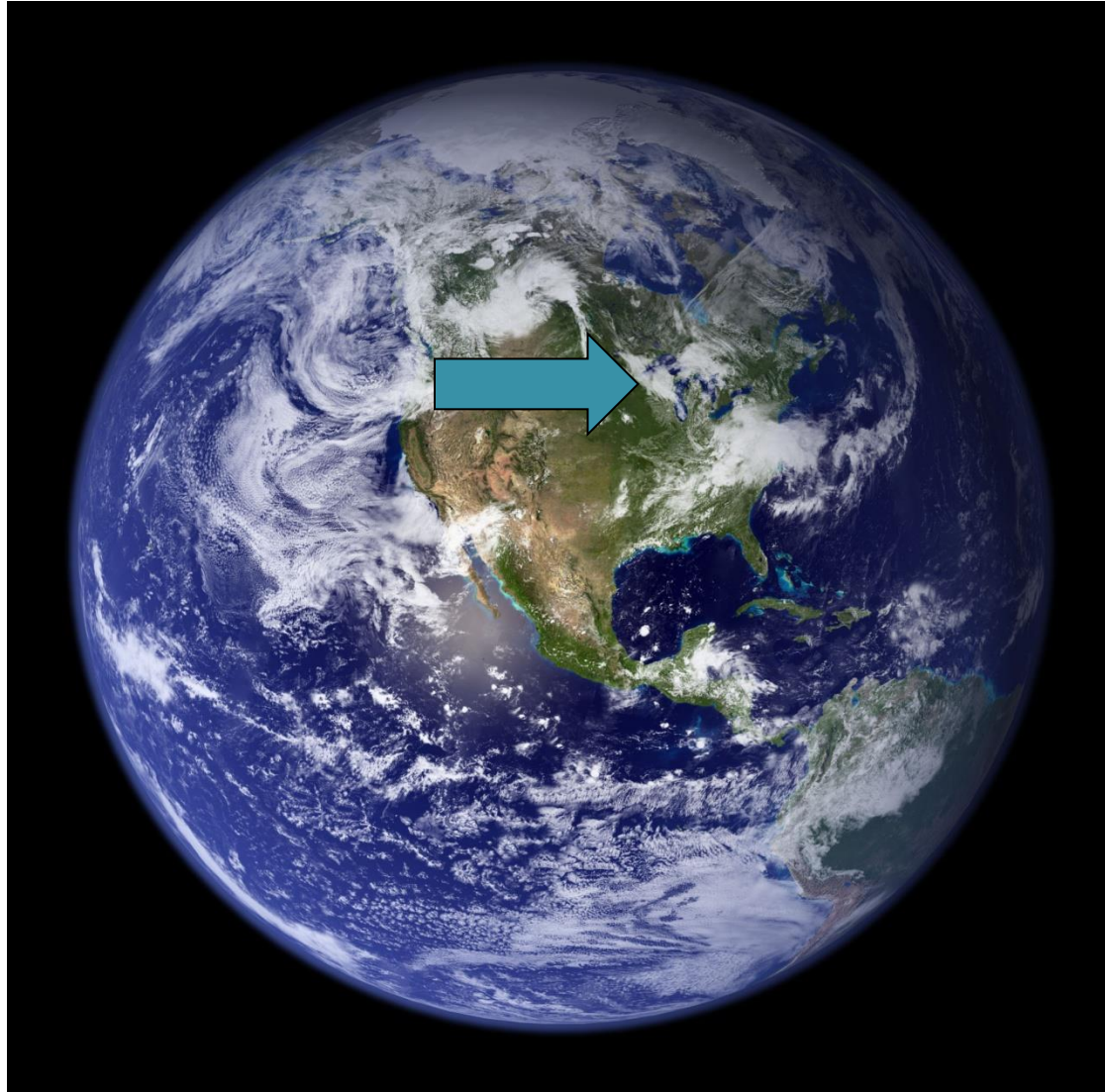
AFFORDABLE
HOUSING
TAX CREDIT
COALITION



CHARLES L. EDSON
AWARD WINNER

Or for you Global Thinkers...

I'm also from here

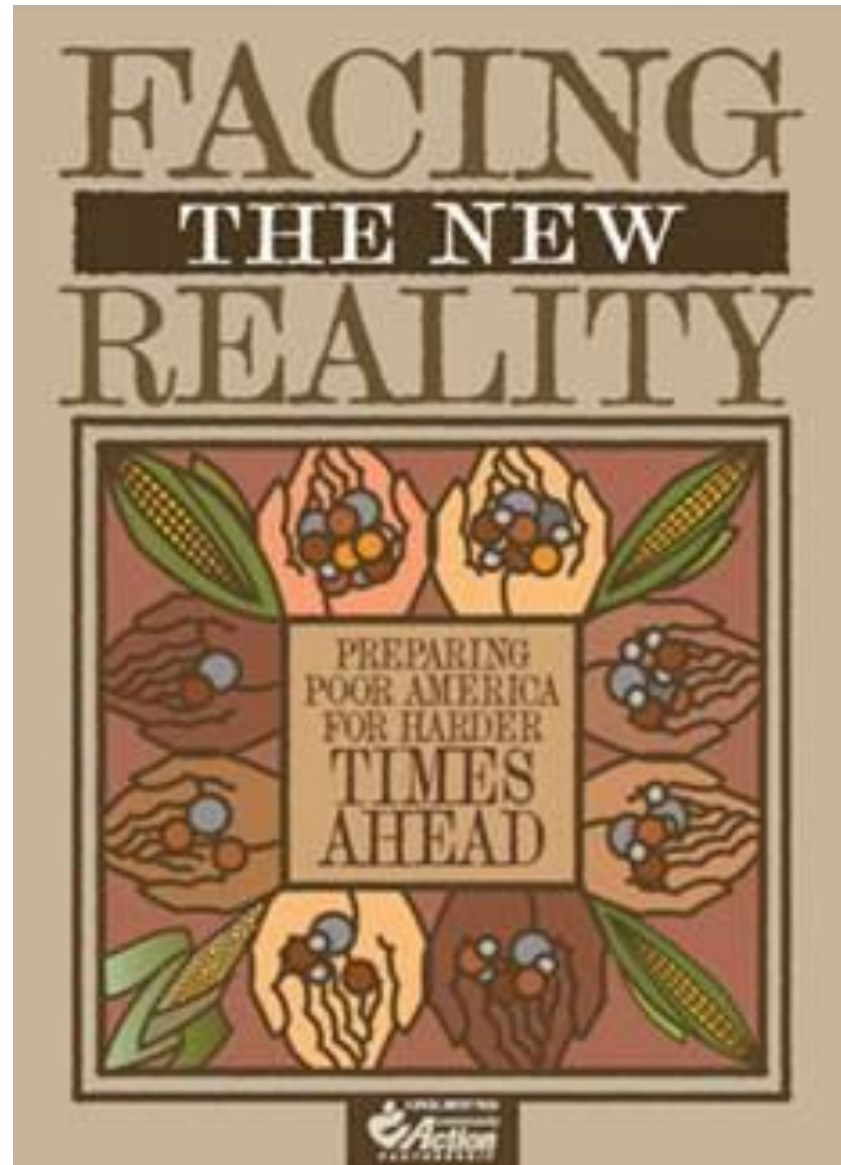


And for the Re-localizers...

I'm from
here



I am also primarily responsible for this..



Three Intertwined Mega-Trends


1. Resource Depletion – *Especially Fossil Fuels*
2. Environmental Degradation – *Especially Climate Change*
3. Economic Turmoil – *Especially Debt Driven*

New Reality Convening, August 2010



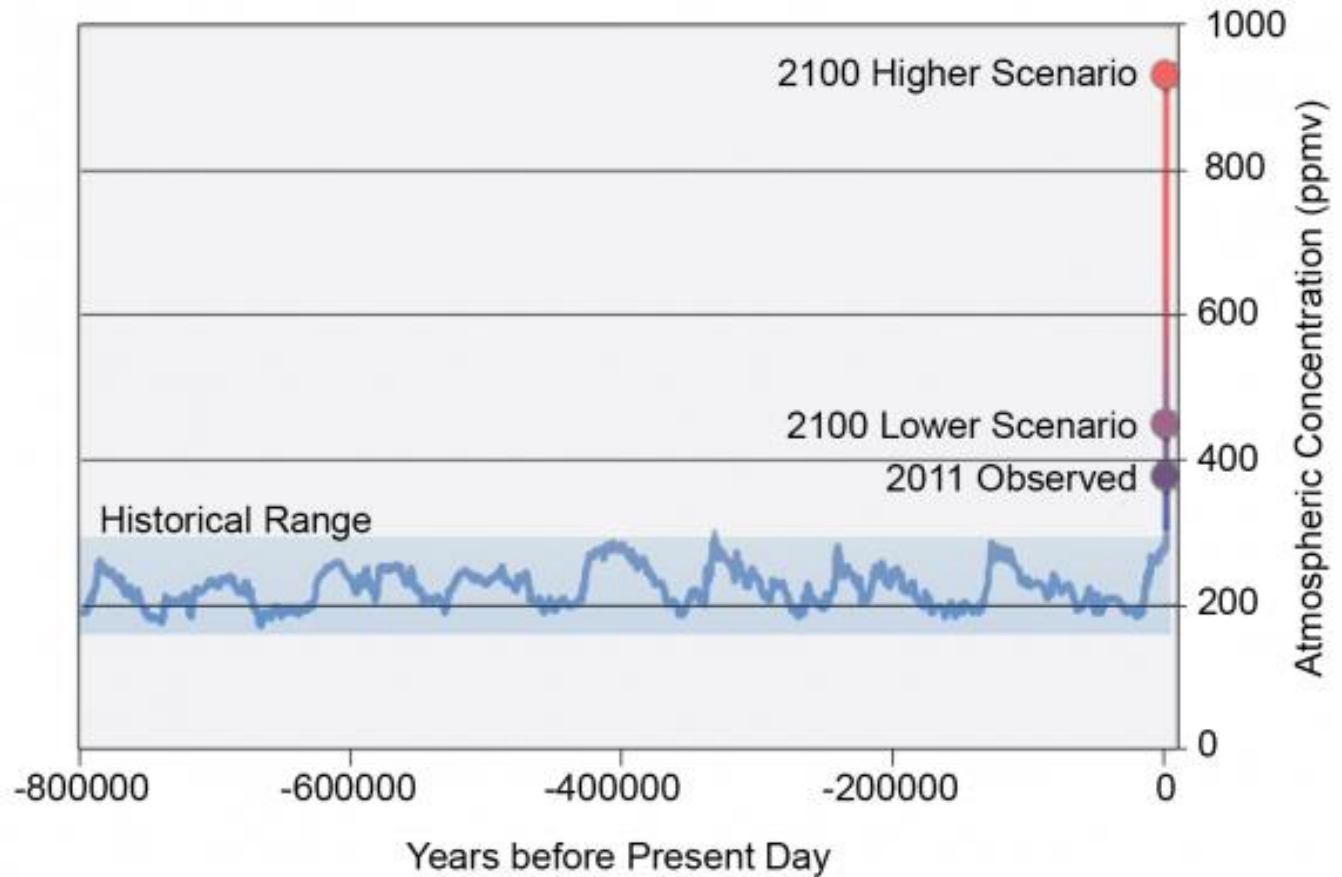
And This: Navigating the New Reality of Energy, Environment and Economy July, 2014





**So, what are we
adapting to, and
why?**

Atmospheric Carbon Dioxide Levels



As of May, 2023 we were at 424 ppm, highest CO₂ level in hundreds of millions of years

Climate Change* 101



*Comment on Frank Luntz

Climate Change 101



Climate Change 101

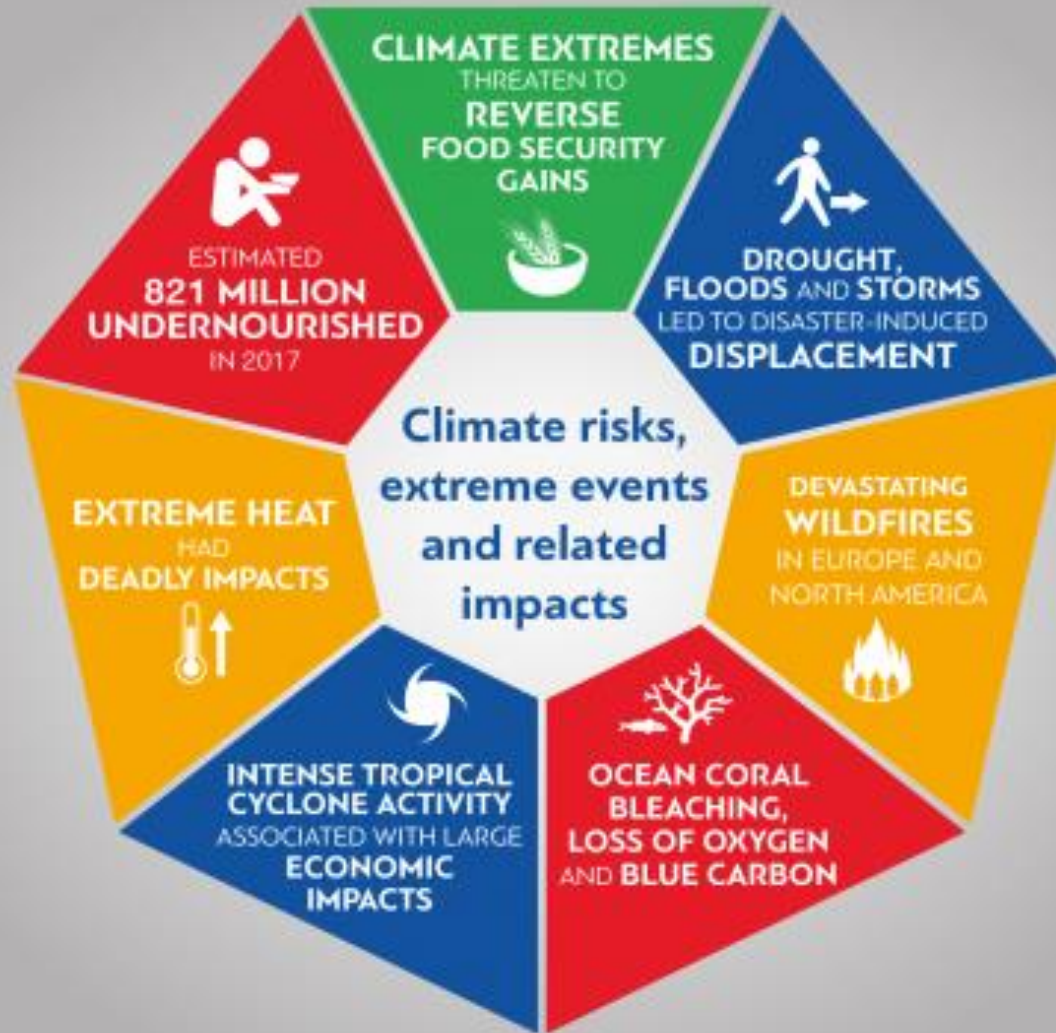


Selma, Alabama 1-12-2023

Climate Change 101



Climate Change 101



Climate Change 101

Its not like we didn't know it was coming



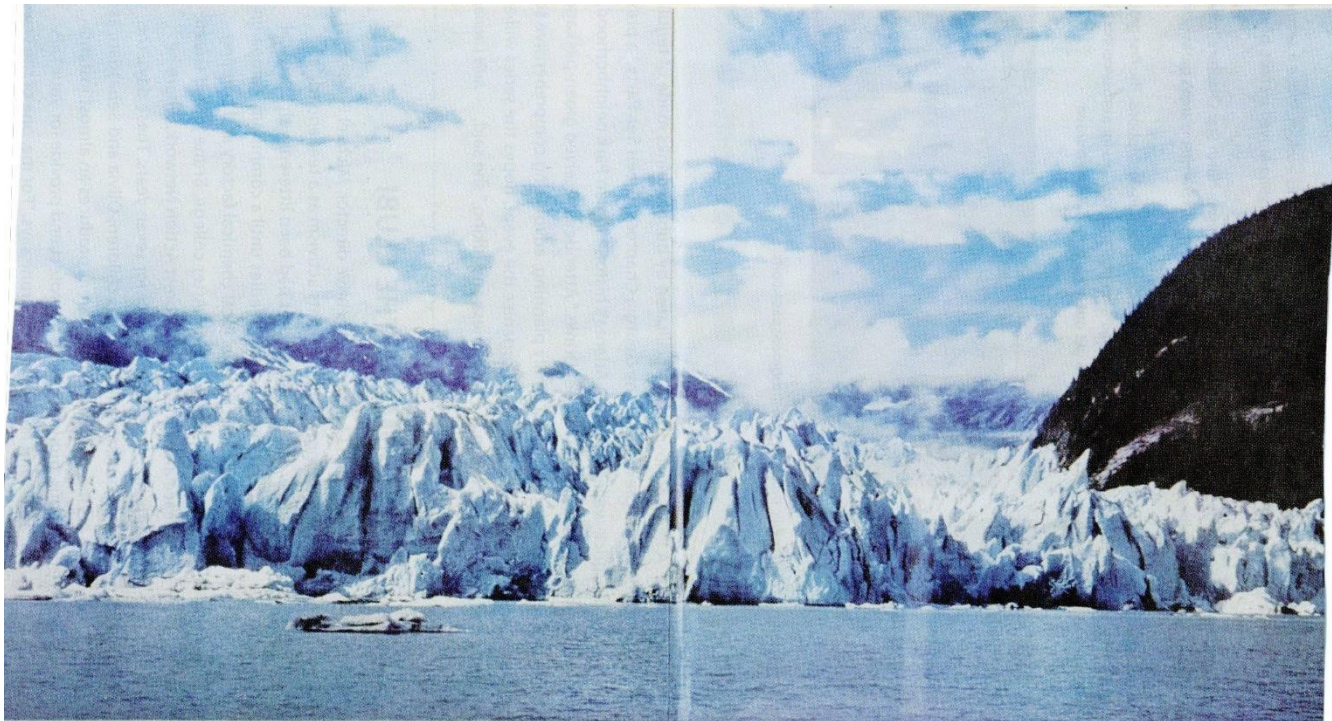
Climate Change 101: Climate Change is Caused by Burning Fossil Hydrocarbons. Period.

Revealed: Exxon made 'breathtakingly' accurate climate predictions in 1970s and 80s

Oil company drove some of the leading science of the era only to publicly dismiss global heating



Climate Change 101: Climate Change is Caused by Burning Fossil Hydrocarbons. Period.



PERU GLACIER, PERU. IS A BANK OF ICE STRUCTURE 275 SQUARE MILES. THE PETROLEUM ENERGY HUMBLE SUPPLIES PERU'S TOTAL FUEL AT THE RATE OF 8 MILLION TONS A DAY!

EACH DAY HUMBLE SUPPLIES ENOUGH ENERGY TO MELT 7 MILLION TONS OF GLACIER!

This giant glacier has remained unmelted for centuries. Yet, the petroleum energy Humble supplies—if converted into heat—could melt it at the rate of 80 tons each second! To meet the nation's growing needs for energy, Humble has applied science to nature's resources to become America's Leading Energy Company. Working wonders with oil through research, Humble provides energy in many forms—to help heat our homes, power our transportation, and to furnish industry with a great variety of versatile chemicals. Stop at a Humble station for famous Esso Extra gasoline, and see why the "Happy Motoring" Sign is the World's First Choice!

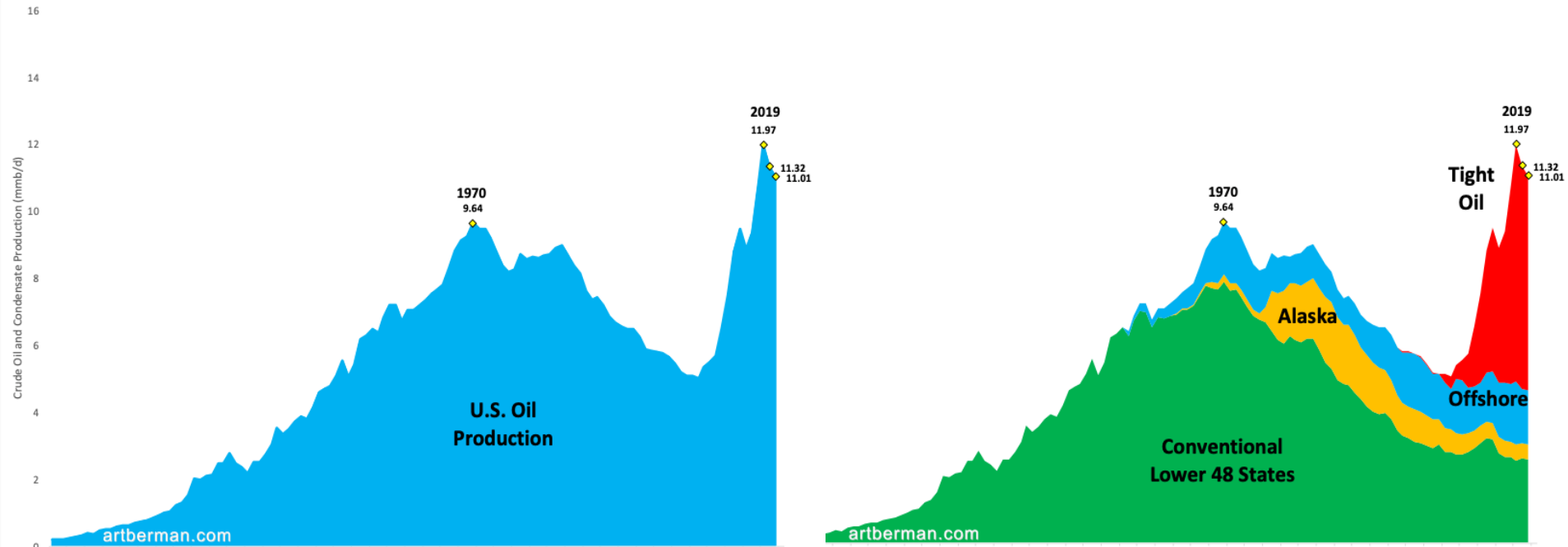
HUMBLE
OIL & REFINING COMPANY
America's Leading Energy Company



Climate Change 101

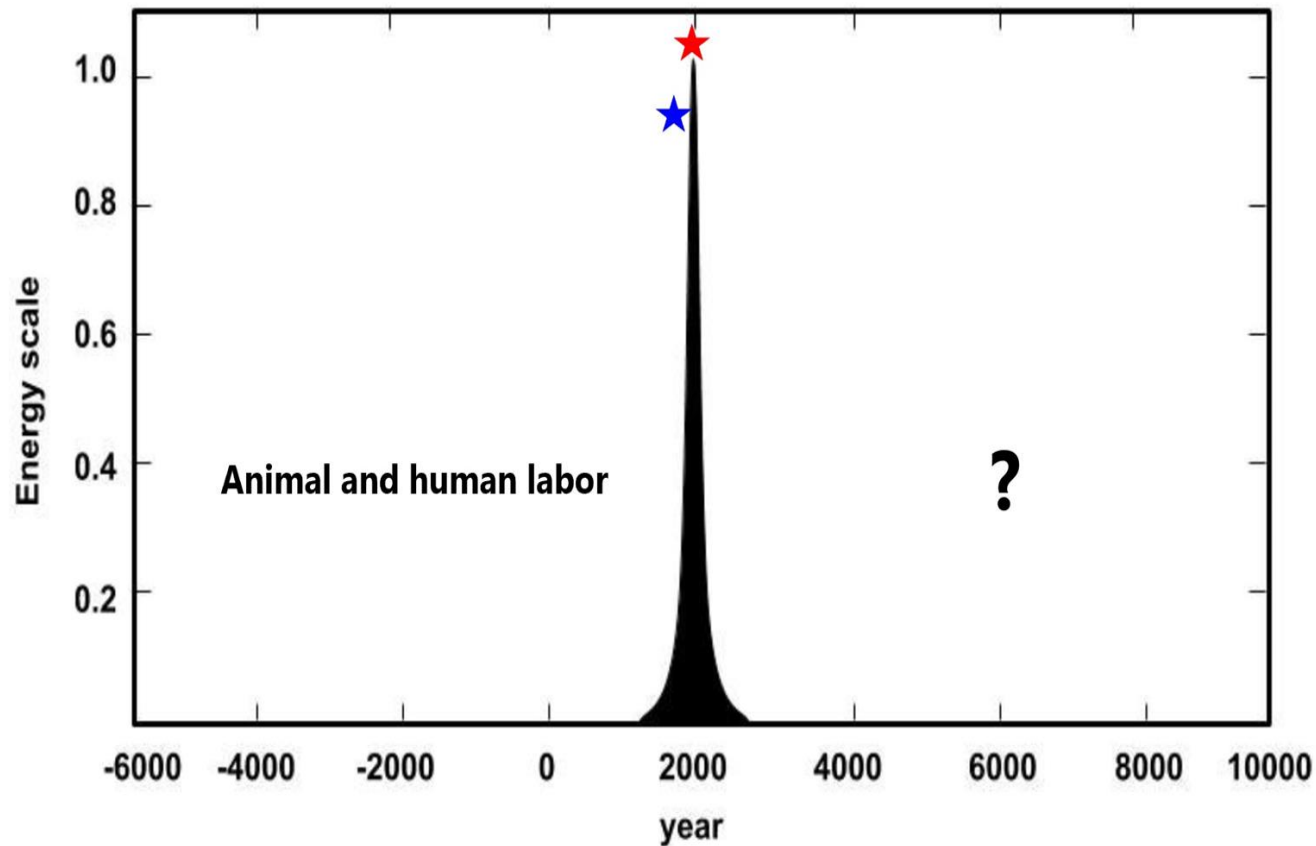
Drill baby drill!!

We're draining America first...



Climate Change 101

The Carbon Pulse: It ain't gonna last long






No, it isn't.



Part I: The Problem



**Are “They” going
to do something to
avoid catastrophic
Climate Change?**



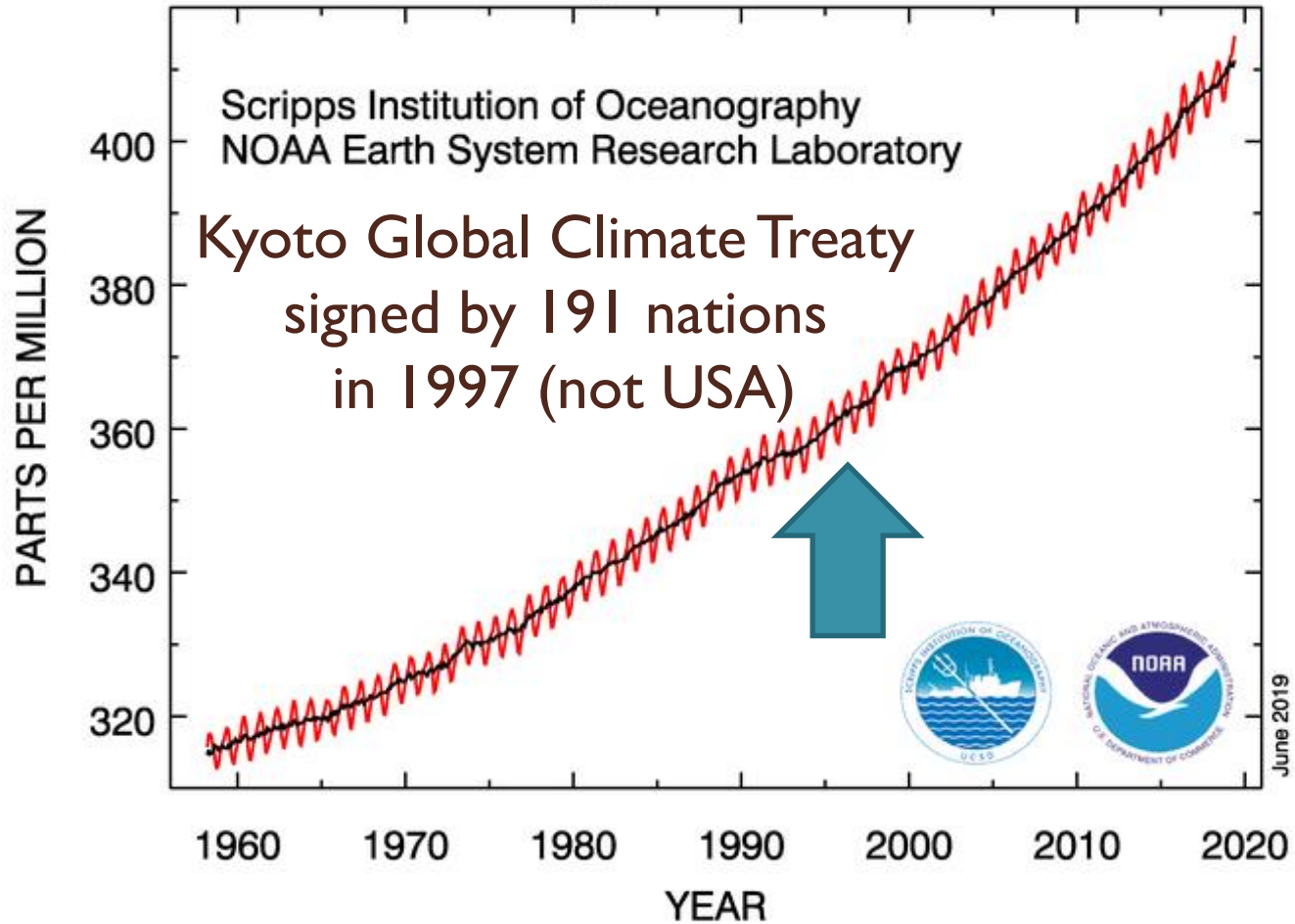
no



no

And its not “No, they won’t,”
its “No, they didn’t.”

Atmospheric CO₂ at Mauna Loa Observatory

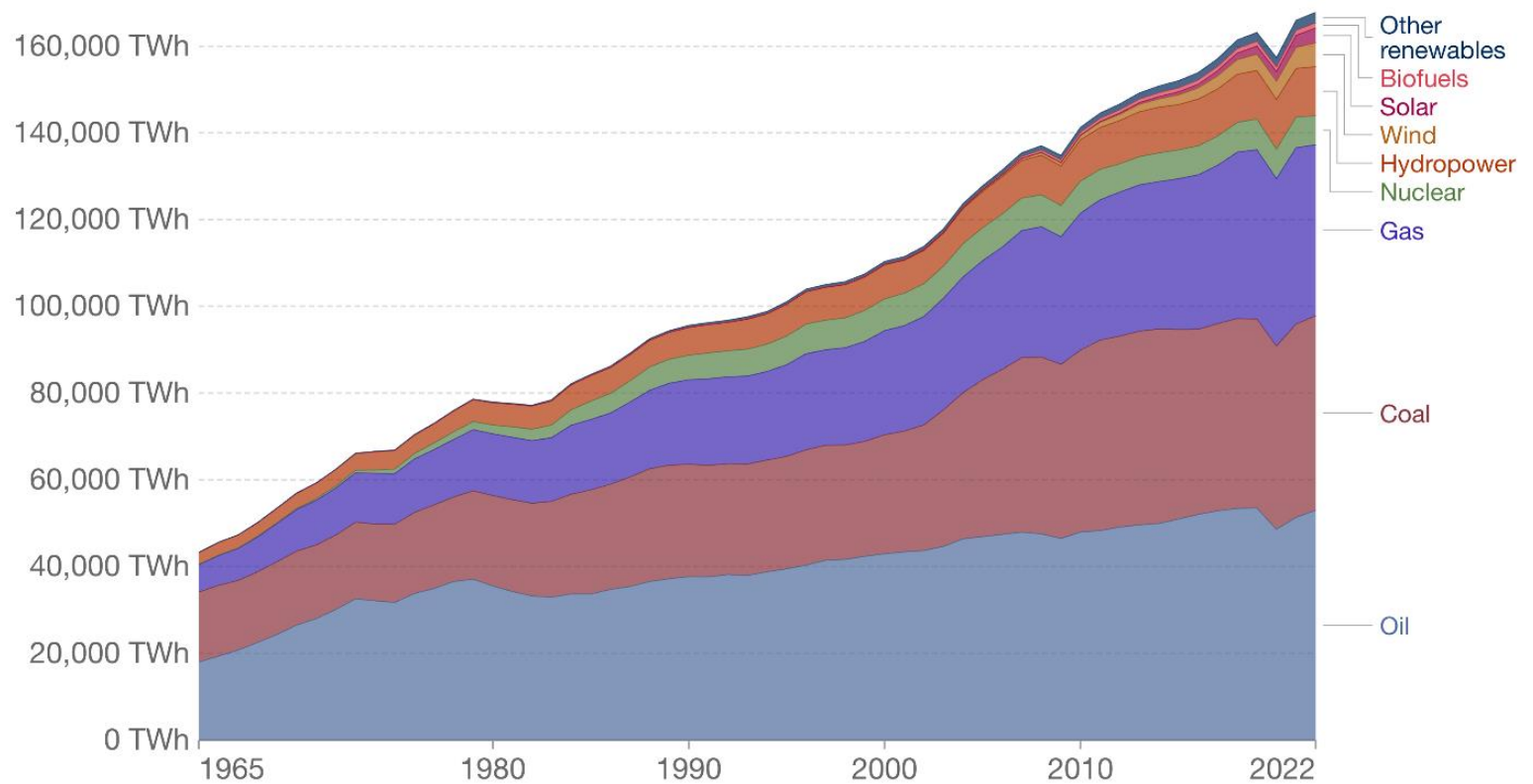


Humans have put more fossil CO₂ in the atmosphere since Kyoto than in all of human history up to that time

Which Looks Like This

Energy consumption by source, World

Primary energy consumption is measured in terawatt-hours (TWh). Here an inefficiency factor (the 'substitution' method) has been applied for fossil fuels, meaning the shares by each energy source give a better approximation of final energy consumption.

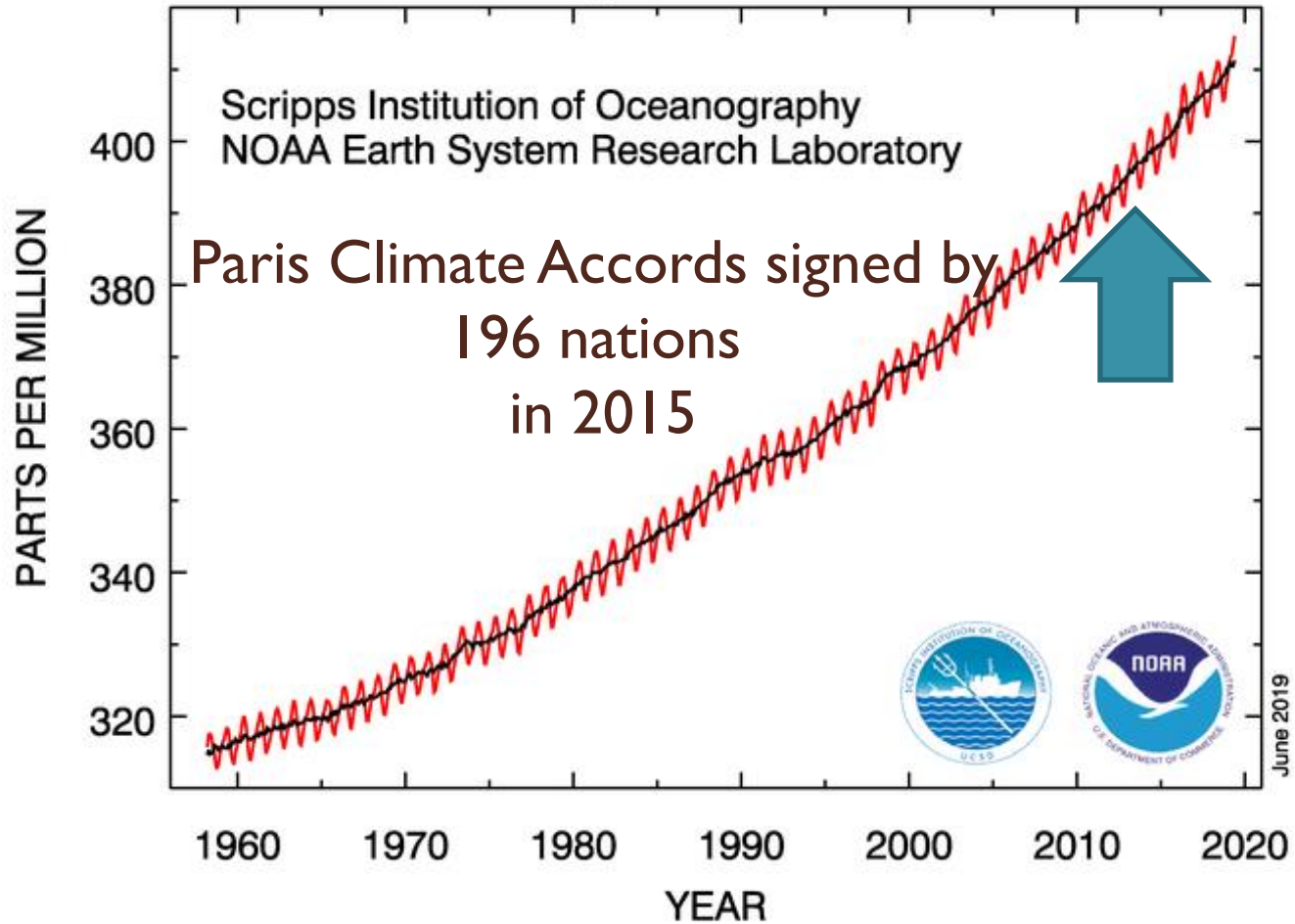


Source: Energy Institute Statistical Review of World Energy (2023)

Note: 'Other renewables' includes geothermal, biomass and waste energy.

OurWorldInData.org/energy • CC BY

Atmospheric CO₂ at Mauna Loa Observatory



No developed country that signed the accords has met their voluntary targets



But what about COP 27?
UN Secretary Guterres
opening: *“We are on the
road to Climate Hell, and
our foot is on the
accelerator!”*

So: https://fb.watch/h_jyDvgLXI/



Politicians Discussing Climate Change

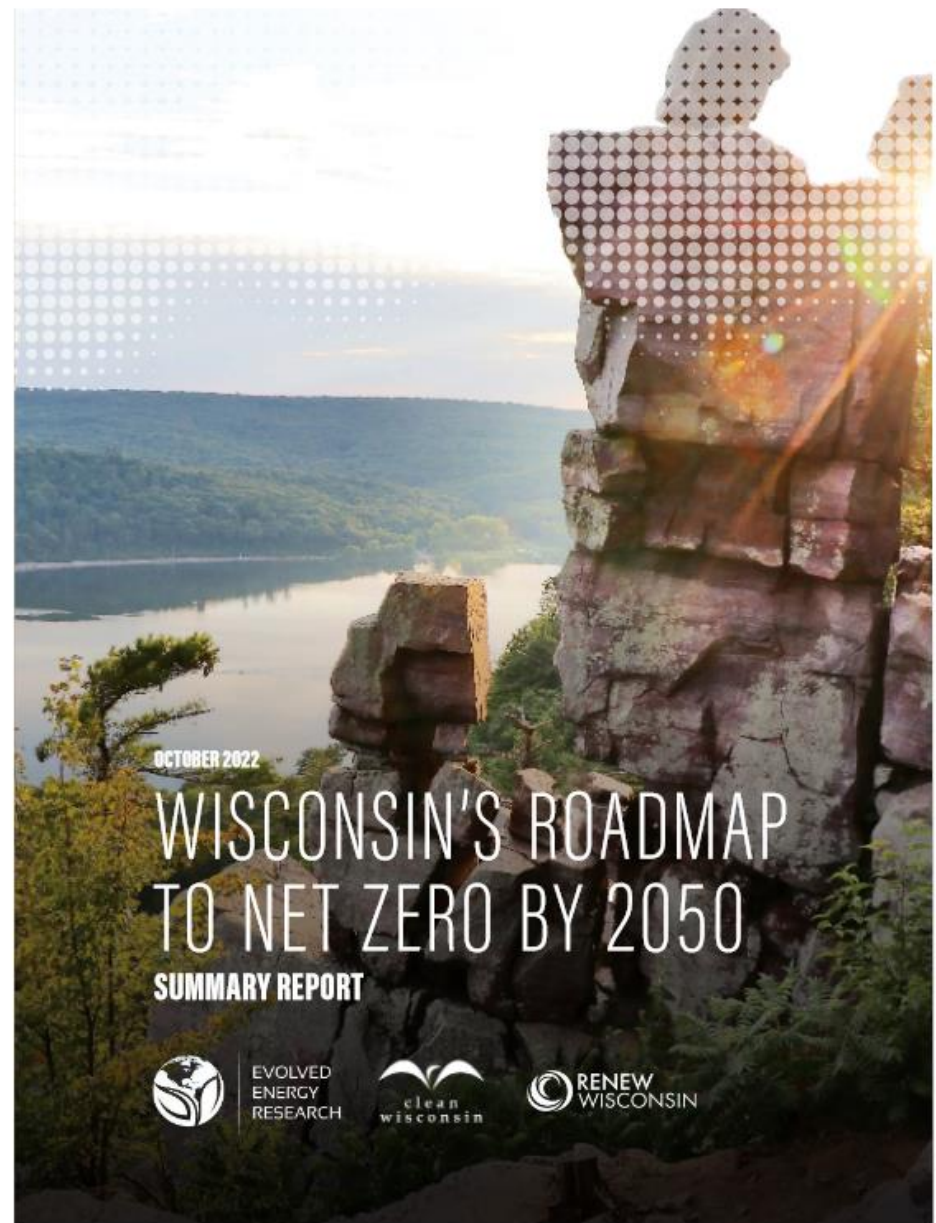


A 14-degree turn won't help if it takes a 23 degree turn to miss the iceberg



62% - 42% - 25%


But what
about Those
21 States that
now have
(Your State's
Name Here)
Roadmap to
New Zero by
2050??



But what about Those 23 States that
now have (Your State's Name Here)
Roadmap to New Zero by 2050??

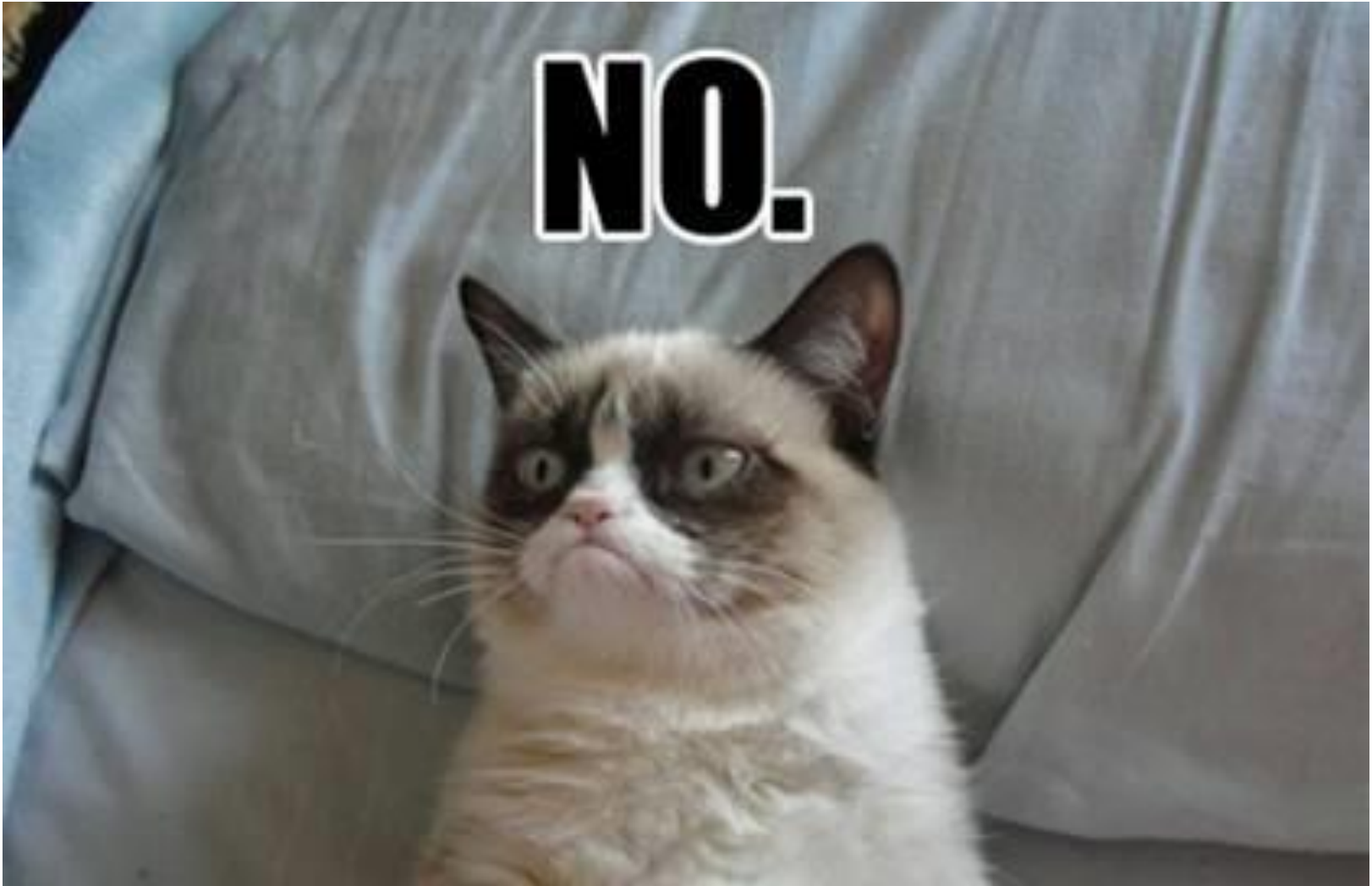


Pipe Dreams, I am afraid.. Not
enough time, energy or needed
materials on the Planet



**Are “We” going to
do something to
avoid catastrophic
Climate Change?**

NO.





Climate Change is not caused by what we:

- Believe
- Care about
- Hope for
- Desire
- Worship
- Love
- or
- Hate



Climate Change is
caused by what we
DO



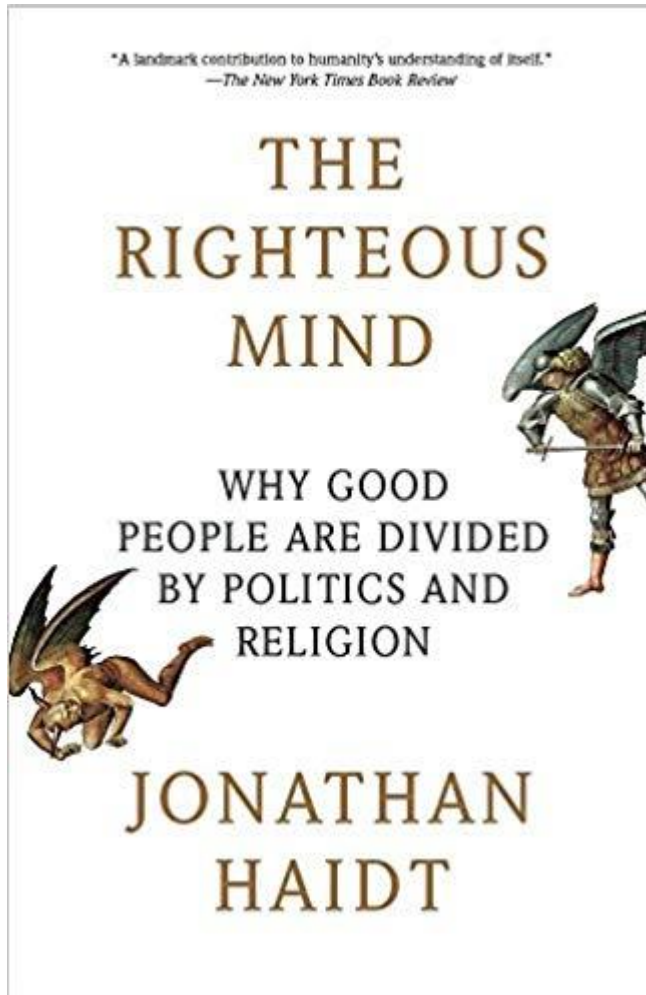
We are primates and **our**
behavior is largely guided by
imitation





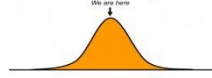
80% of Humans have an Optimism Bias

The Problem of the Rider and the Elephant





Wake up!!!



Peak Oil

Where Were You...

WHEN CARBON DIOXIDE LEVELS PASSED 400 PARTS PER MILLION?



TAMMY PHILIPPS, 36: "I WAS ON MY 75-MINUTE COMMUTE TO WORK."



BRUCE KRIEBLER, 58: "I WAS BLOWING FLOWER PETALS OFF MY DRIVEWAY WITH MY LEAFSLAYER 5000."



BARB AND CARL BIRNBAUM, 45 & 47: "WE WERE HAULING OUR TOYS TO THE LAKE TO SPEND SOME TIME IN NATURE."



The Prius Problem

More of these

=

More of these



The Bitcoin Problem

The amount of electricity it takes to process cryptocurrency transactions each year..

= 10% of

All of the electricity produced by all solar electric PV in the entire world each year



The Swedish Pilot Problem

The fossil fuel
emissions
saved here



The fossil fuel
emissions
released here



The “Developed Nations” Problem



Shock and condemnation at the loss of 20% of the Brazilian rainforest from the US, which has, incidentally, destroyed 98% of its own old-growth forests.



**Will Technology
save us from
catastrophic
climate change?**



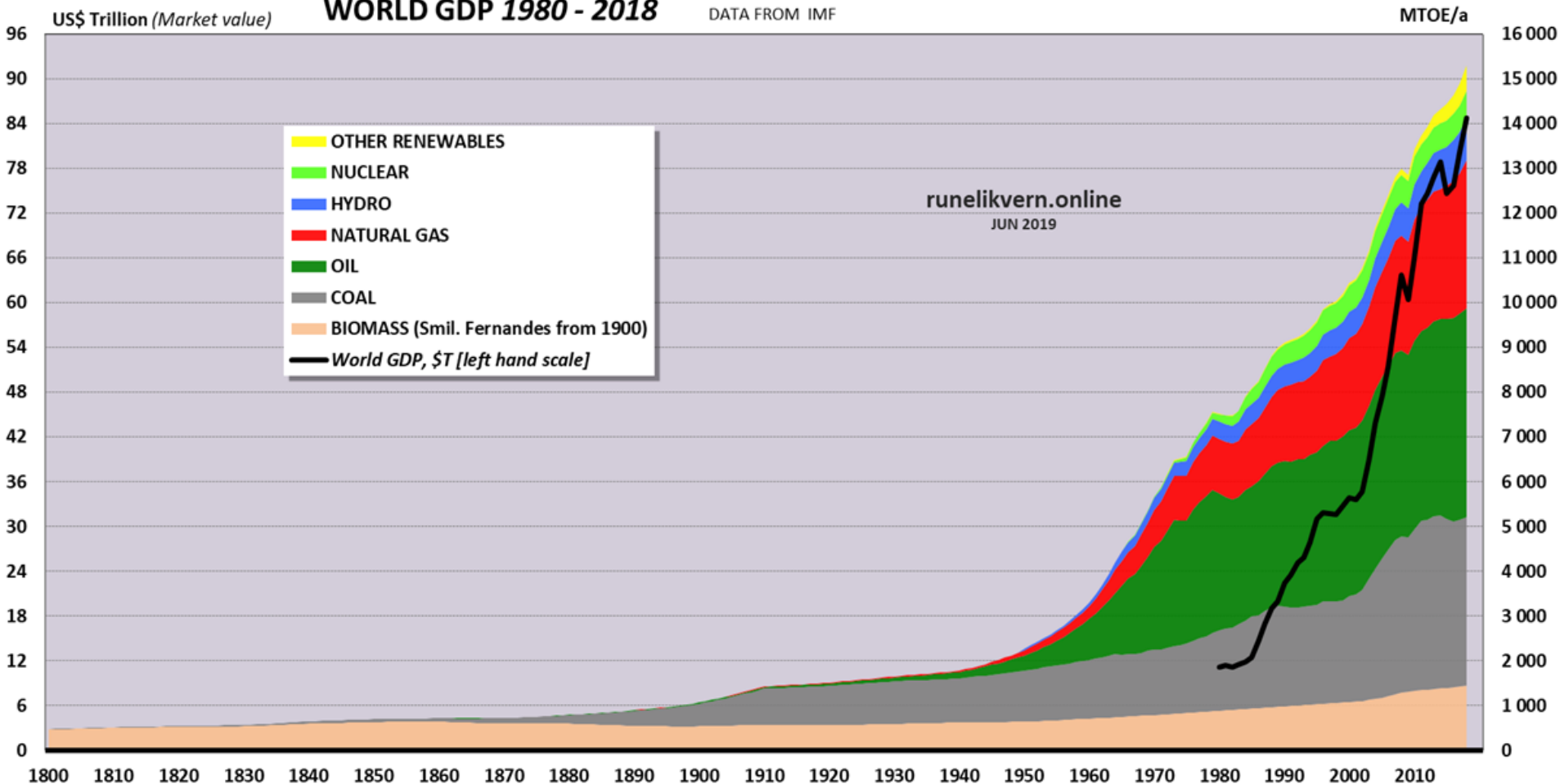
When we say “technology.” we really mean
“energy.” And that’s almost all fossil fuel **and**
we are insatiable.

WORLD ENERGY CONSUMPTION AND MIX 1800 - 2018

BASED UPON DATA FROM BP STATISTICAL REVIEW 2019 (1965 - 2018), PRE 1965 FROM SMIL, BIOMASS SINCE 1900 FROM FERNANDES

WORLD GDP 1980 - 2018

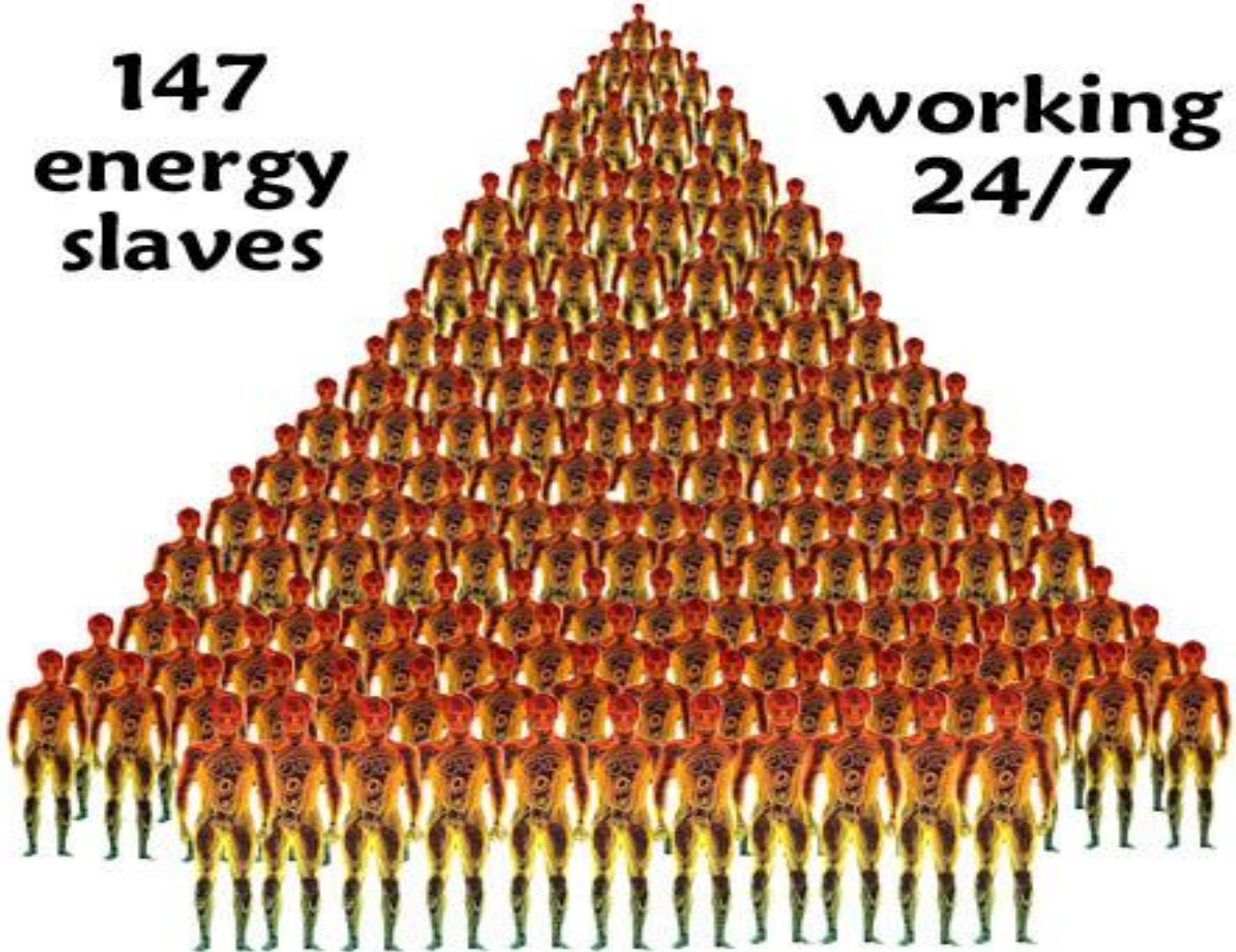
DATA FROM IMF



The Average American Currently Enjoys the services of.....

**147
energy
slaves**

**working
24/7**





We need to make sure that poor people live just like we don't.

1 Barrel of Oil...

- = 1700 kWh of energy
- = 25,000 hours Human labor
- = \$500,000 at \$20 Ave.

American Labor Cost

= Automating a job =
paying 1/3 cent/hour
wages

...Costs \$83.10



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So our 28 million US businesses plan to automate 75,000,000 jobs by 2030

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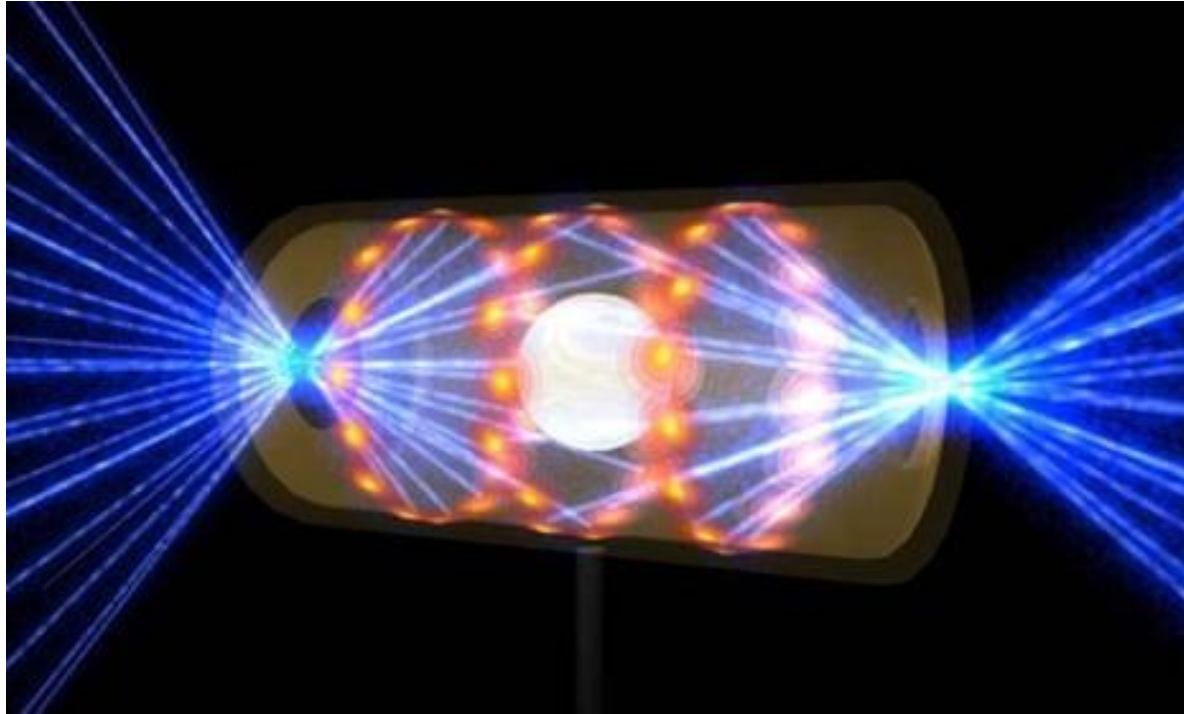
American Labor Cost
= Automating a job = paying
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...Costs \$83.10



So our 28 million US businesses plan to automate 75,000,000 jobs by 2030 **by using even more climate-changing fossil fuel**

But what about Nuclear Fusion?



- **This input is to be welcomed but we should be emphatic: fusion will **not** arrive in time to save the planet from climate change. Electricity plants powered by renewable sources or nuclear fission offer the only short-term alternatives to those that burn fossil fuels. We need to pin our hopes on these power sources.**



**Part II: YIKES!! So
now what?**

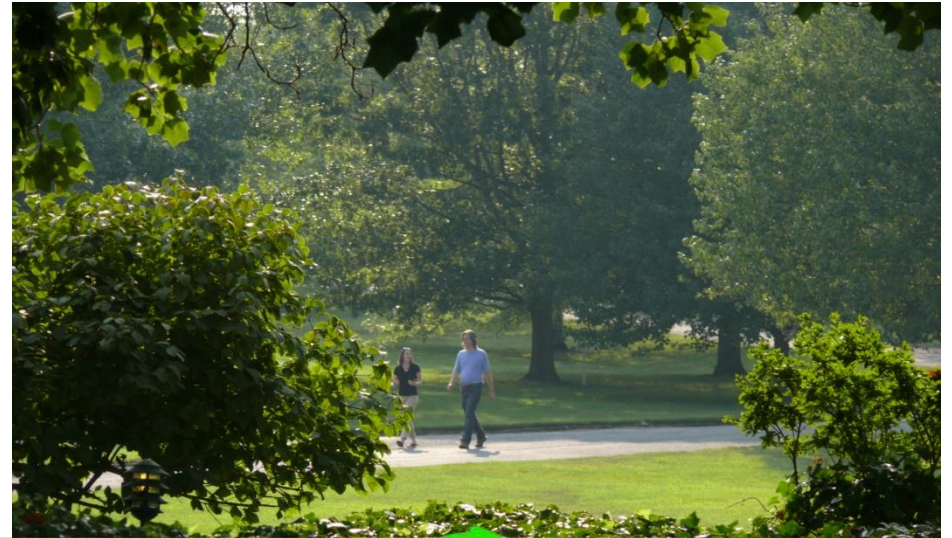
Chill



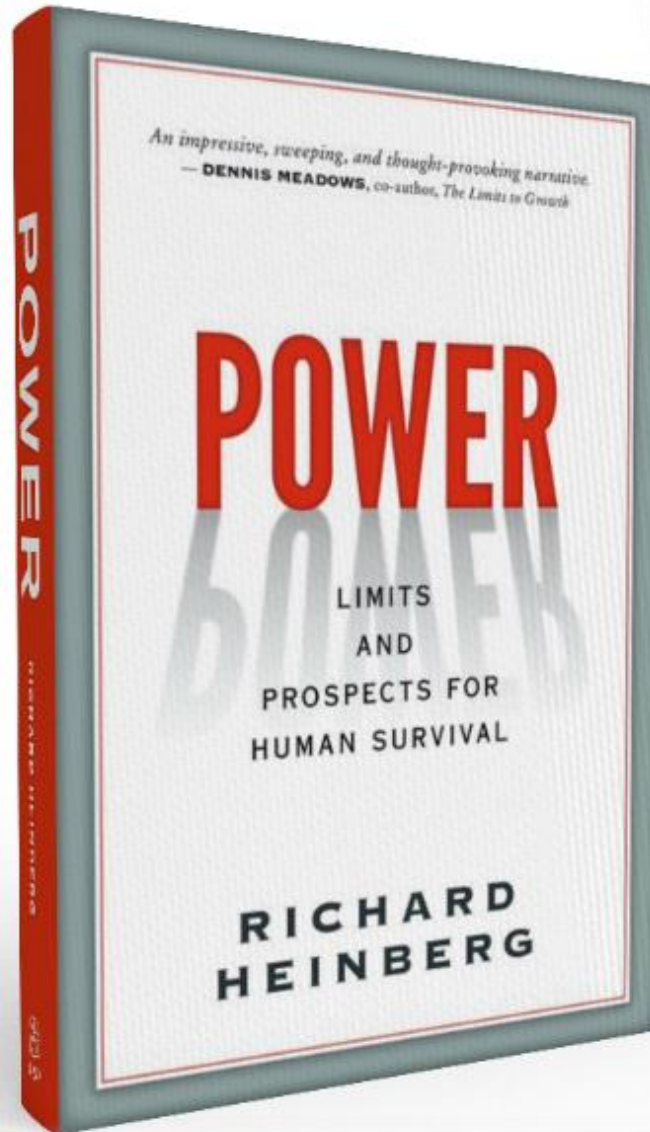
Study up on Climate Change



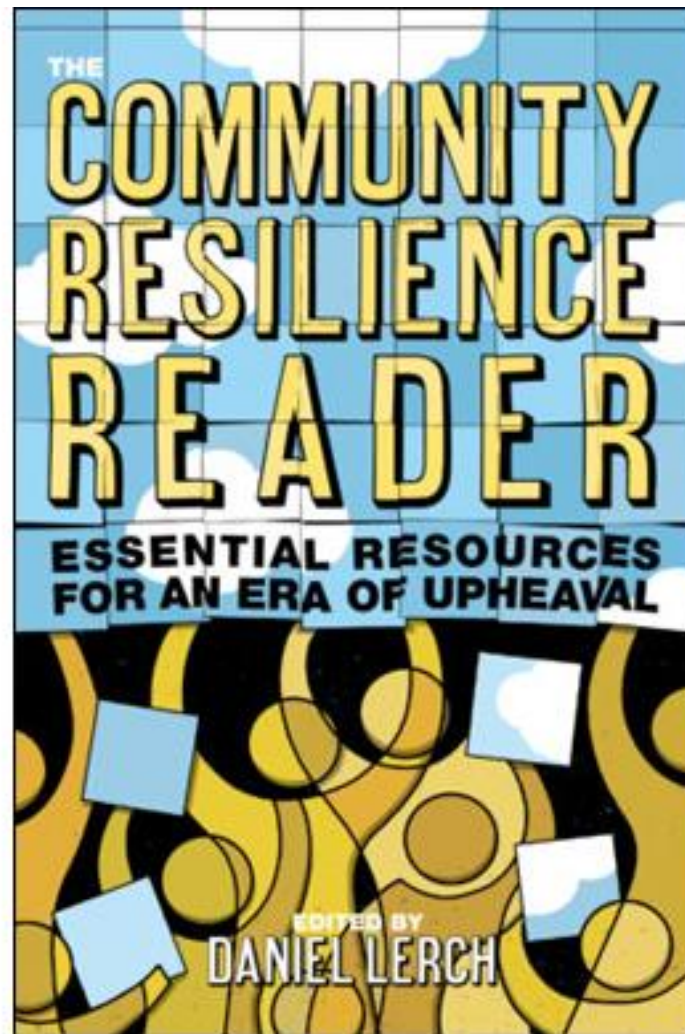
New Reality Convening, August 2010



Read this book



And this one



Ok, fine. You're really busy. I get that.
So *at least* read this this 50-page booklet



All Available from the Post
Carbon Institute

Become one of the best-informed people
on the planet by investing time in:




Nate Hagens

Nate Hagens is the Director of The Institute for the Study of Energy & Our Future (ISEOF) an organization focused on educating and preparing society for the coming cultural transition. Allied with leading ecologists, energy experts, politicians and systems thinkers ISEOF assembles road-maps and off-ramps for how human societies can adapt to lower throughput lifestyles.

Nate holds a Masters Degree in Finance with Honors from the University of Chicago and a Ph.D. in Natural Resources from the University of Vermont. He teaches an Honors course, *Reality 101*, at the University of Minnesota.



The Future We Are
Planning For Is Not
The Future That's
Coming



**OK, so what does
this real future, the
New Reality, look
like?**

Not this



And (probably) not this



Not this either





Some sort of severe economic contraction or collapse is a near certainty

The Future: Climate Change and Worldwide Wealth

Both the result of burning fossil hydrocarbons

WORLD ENERGY CONSUMPTION AND MIX 1800 - 2018

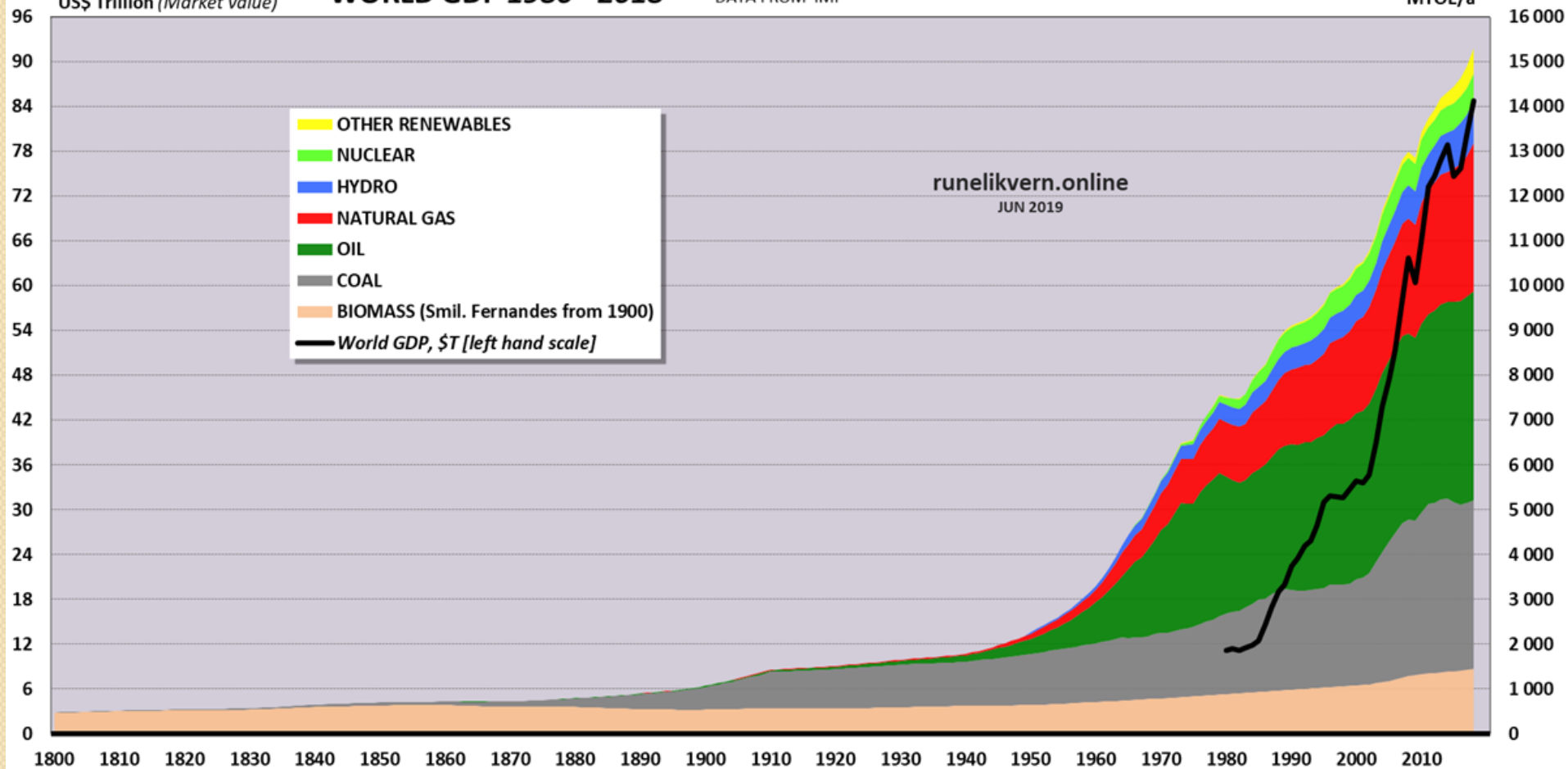
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WORLD GDP 1980 - 2018

DATA FROM IMF

US\$ Trillion (Market value)

MTOE/a



And now
for something
completely different...



More like this





Or this



In a nutshell: We must help our low-income households and our communities do four things:

1. Dramatically reduce our consumption of fossil fuels and non-renewable resources.
2. Build the capacity of our local and regional economies to meet their own needs using their own resource base.
3. Foster local community development based on mutual assistance and cooperation.
4. Build Authentic Communities



WEST CAP



**Not Life in Hell,
But a Future Where Less is More**

A Future Where Less is More

Less Lawn



More Garden



A Future Where Less is More

Less Big Box

More Small Tent



A Future Where Less is More

Less Distant
Digital



More Local Live



A Future Where Less is More

Less Disney
World



More Our World



A Future Where Less is More

Less Plane



More Train



A Future Where Less is More

Less Castle

More Cozy



A Future Where Less is More

Less Armada



More Leaf



A Future Where Less is More

Less Robotic

More Robust



A Future Where Less is More

Less Competition

More Cooperation



A Future Where Less is More

Less Facebook

More Face Time



A Future Where Less is More

Less Sell-a-Thon

More Celebrate

Sellathon means

**Selling
continuously**




A Future Where Less is More

Less “We’re in this to win!”

More “We’re in this together!”





**Looks pretty nice.
How do we get to
this future?**



Take some community action

- Do a Community Resilience Assessment
- Facilitate a Climate Change Adaption Planning Process
- Scrounge up some money and get to work, like this ...

Deep Retrofit: How Existing Housing Stock Can Achieve Net Zero Energy Use and Remain Affordable



a few other free BTU harvesters





Net Zero Energy Homes





Develop Community Solar



Support Local Food Systems

Finally, we will need new (and old) skills and new (and old) knowledge for a real New Age: an age of limited resources but of unlimited potential for happiness and meaningful life.

