

THE MORAL CASE FOR FOSSIL FUELS

Jed Greenberg, Jimmy Kim,
Claudio Sanchez-Nieto, Vy
Nguyen, Dana Smith

AGENDA

1. Background of “The Moral Case for Fossil Fuels” by Alex Epstein
2. Energy Improving Lives
3. Fossil Fuels is the Most Efficient Form of Energy
4. Carbon Pricing
5. The Moral Case & Carbon Pricing
6. Conclusion

A large, bright yellow diagonal graphic that starts from the top right and extends towards the bottom left, creating a sharp split in the background.

1.

**THE MORAL CASE
FOR FOSSIL FUELS**

“

They're coming to ship their poison so they can poison the people in China. And that poison's going to come back here and poison your salmon and your children, so don't let it happen.

”

🗉 Robert F. Kennedy

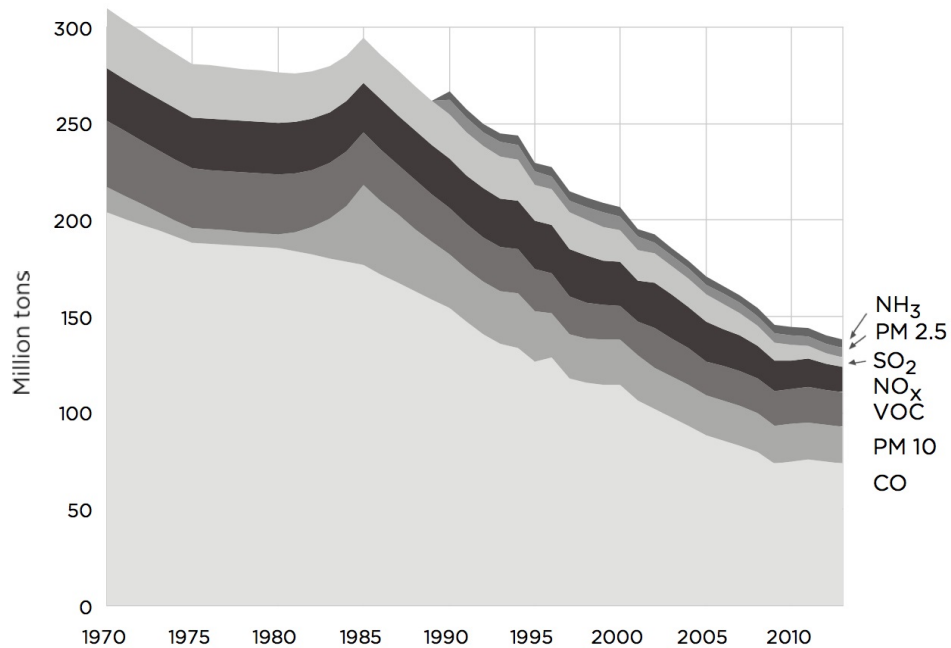


VS





U.S. AIR POLLUTION **DECREASES** DESPITE **INCREASING** FOSSIL FUEL USE



THE
UNHEARD
TRUTH

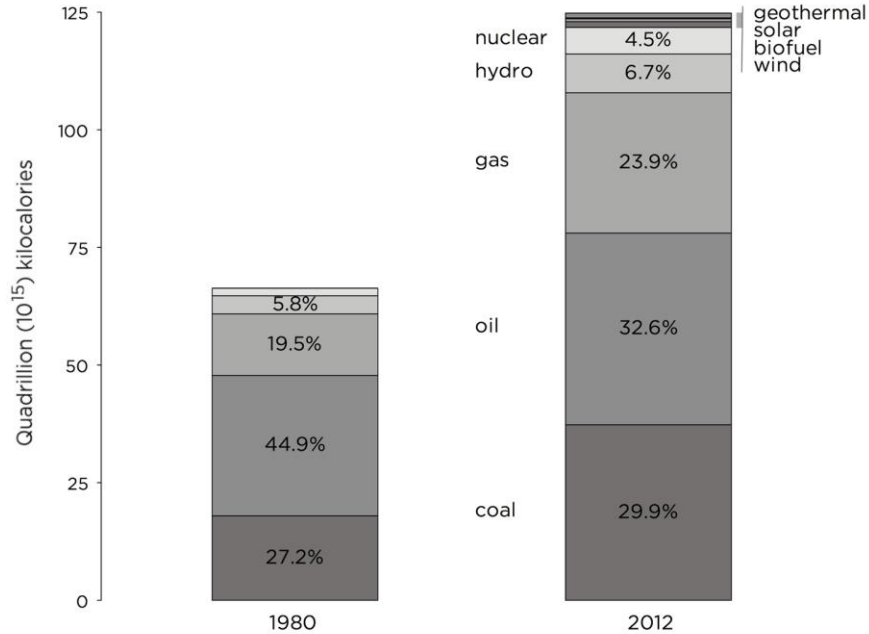




WHAT IS “CLEAN” ENERGY?



87% OF ENERGY USED EVERY SECOND COMES FROM COAL / OIL / NG



The image features a bright yellow background. A diagonal line runs from the top center towards the bottom right, dividing the space. To the right of this line, there is a solid yellow area. To the left, there is a white area. A dark yellow stripe runs parallel to the diagonal line, starting from the top left and extending towards the bottom right.

2.

**MORE ENERGY IS
THE ABILITY TO
IMPROVE LIVES.**

1.3 BILLION

people worldwide live without electricity



that's more than

1 IN 5 PEOPLE

around the globe



OPPORTUNITIES FOR EDUCATION

291+ MILLION PRIMARY SCHOOL STUDENTS ATTEND SCHOOL WITHOUT ELECTRICITY.

Advantages of electricity:



Children can spend less time on domestic chores, and more time in school instead



The ability to study after dark



Access to computers, television, and radio



OPPORTUNITIES FOR **BETTER HEALTH**

IN SRI LANKAN HOUSEHOLDS
WITHOUT ELECTRICITY,
INFANT MORTALITY IS MORE

THAN **3X**

AS HIGH COMPARED TO
HOMES WITH ELECTRICITY

Better energy means

- ❑ Safe drinking water & sanitation
- ❑ Better health care services
- ❑ Better public health
- ❑ Better medical technology

“

The moral case for fossil fuels is the moral case for *cheap, plentiful, reliable energy* to make the world a better place for human beings.

”

□ Alex Epstein

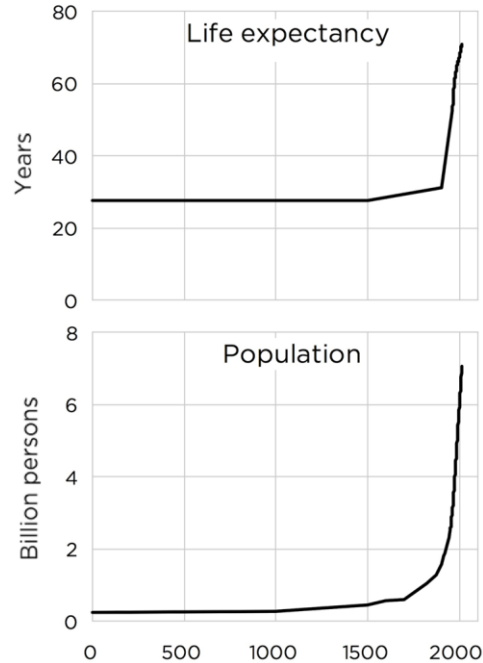
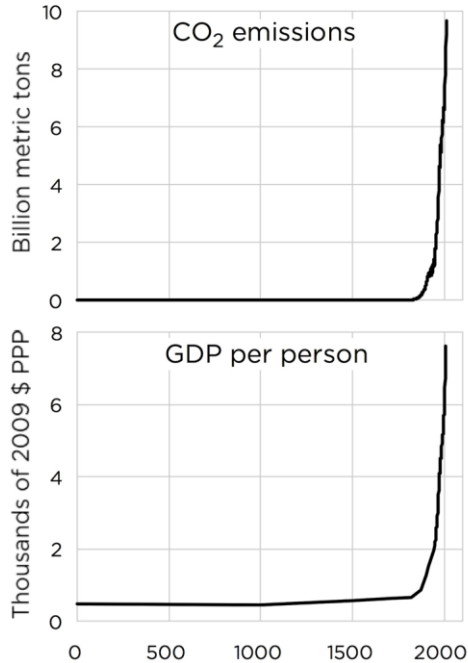


HUMAN PROGRESS

SINCE THE INDUSTRIAL REVOLUTION IN 1800



QUALITY OF LIFE **DOUBLES SINCE 1800**



“

Coal is everything to us. Without coal, our factories will become idle, our foundries and workshops be still as the grave; the locomotive will rust in the shed, and the rail be buried in the weeds. Our streets will be dark, our houses uninhabitable.

”

□ William Stanley Jevon



3.

WHY DON'T WE
ACCEPT FOSSIL
FUELS AS MORAL?



STEEL & IRON REQUIRED PER MEGAWATT FOR WIND, COAL, & NATURAL GAS



Wind



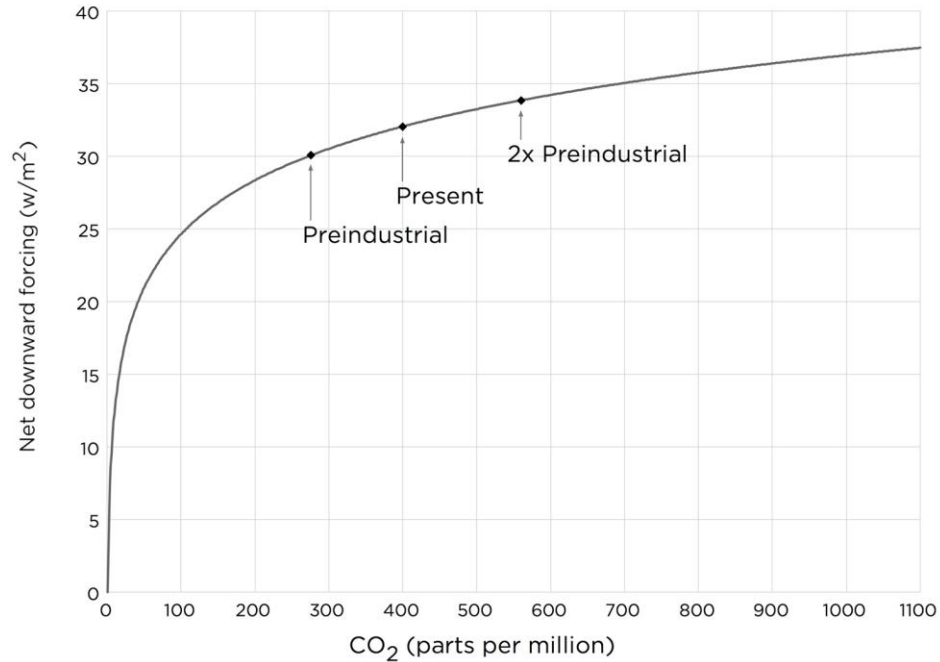
Coal



Natural gas



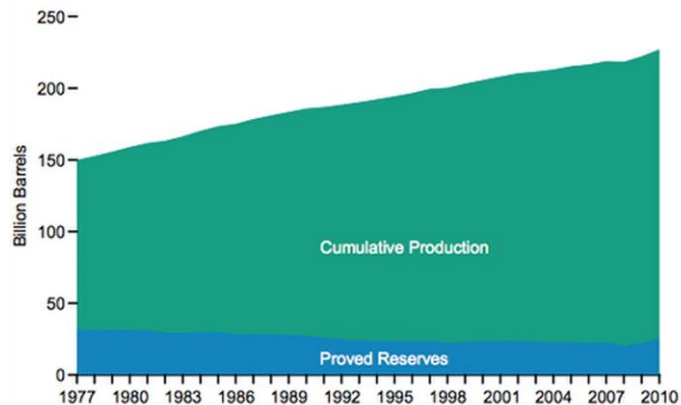
THE DECELERATING, LOGARITHMIC GREENHOUSE EFFECT



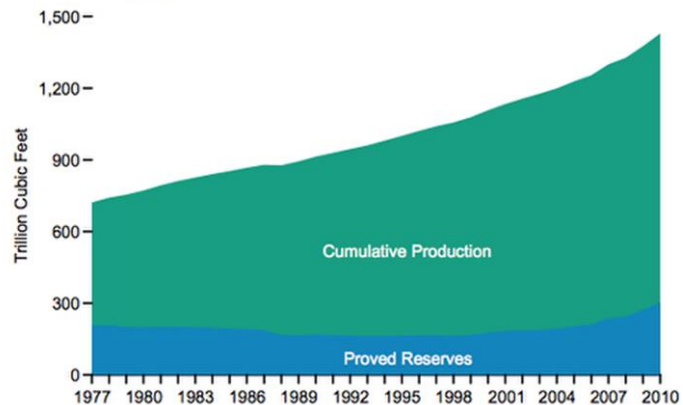


FOSSIL FUEL RESOURCES NOT AS FINITE AS THEY SEEM

Crude Oil



Natural Gas (Dry)



“

Mankind's use of fossil fuels is *supremely virtuous* - because human life is the standard of value, and because using fossil fuels *transforms our environment* to make it wonderful for human life.

□ Alex Epstein

”

A large, bright yellow diagonal shape that starts from the top right and extends towards the bottom left, creating a split background of white and yellow.

4.

CARBON PRICING

Emissions Trading System (ETS)

Cap-and-Trade

- ❑ Declining emissions cap set by government which caps the total level of greenhouse gas emissions allowed
- ❑ Companies are allotted a limited number of emission permits which they can use or trade away
- ❑ Price of permits based on market

Carbon Taxes

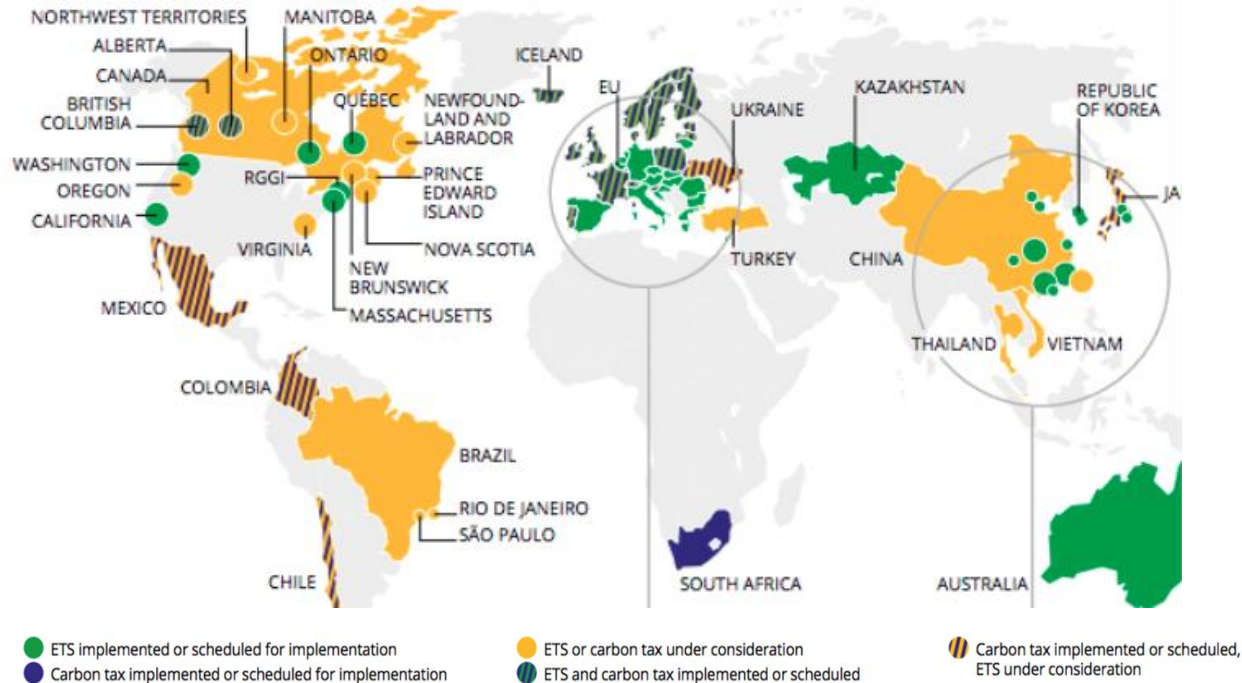
- ❓ Government sets a direct price on carbon by defining a tax rate on greenhouse gas emissions
- ❓ Emissions volume based on market while the rising carbon price is set by the government
- ❓ Different from Cap-and-Trade in that the emission reduction outcome of a carbon tax is not predefined but the carbon price is

Potential Benefits

1. Protects the environment
2. Stimulates innovation
3. Efficient way to raise revenue

Carbon Pricing around the world

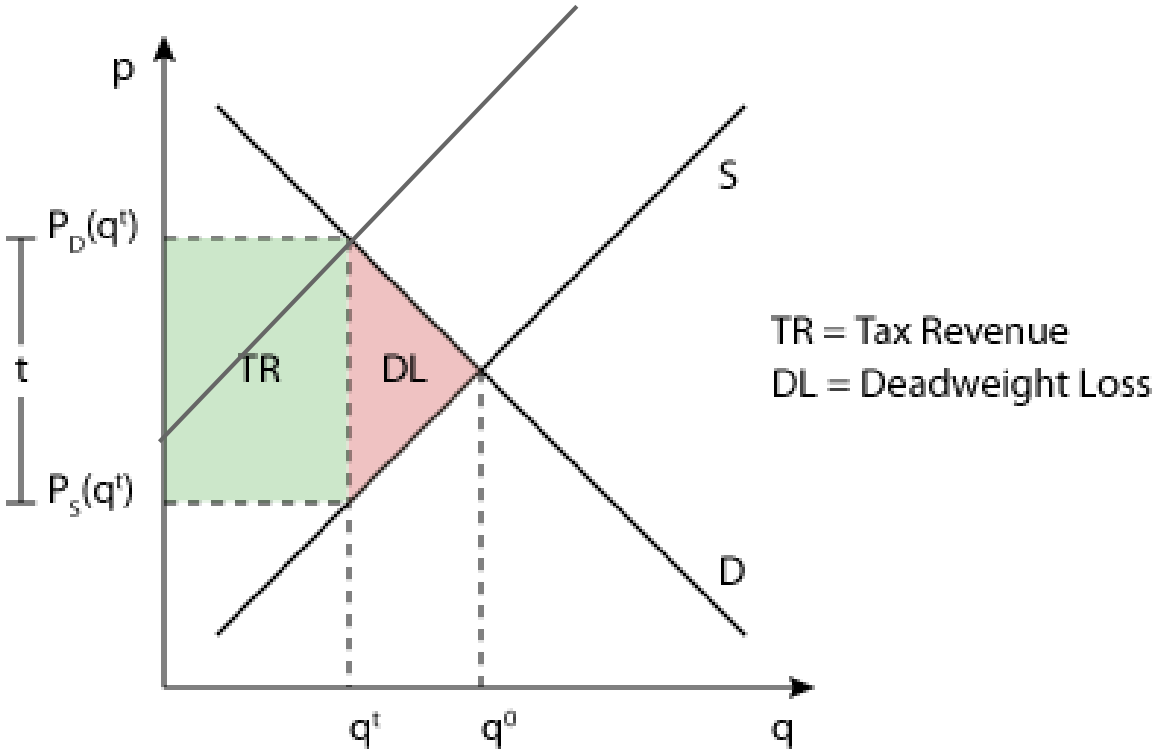
42 national and 25 subnational jurisdictions are pricing carbon



5.

THE MORAL CASE & CARBON PRICING

Carbon Pricing Makes Energy More Expensive



Hidden Costs of Carbon Pricing

- ❓ One purpose of Carbon Pricing is to shift from fossil fuels to renewables
- ❓ When we evaluate energy sources as a process from construction to generation, renewables are much more dirty than they initially appear

“

“Hidden out of sight behind smoke-shrouded factory complexes in the city of Baotou, and patrolled by platoons of security guards, lies a five-mile-wide “tailing” lake. It has killed farmland for miles around, made thousands of people ill and put one of China’s key waterways in jeopardy.”

”

□ Alex Epstein



© Ham Young Un/Keen / iStock

Utilitarianism

- ❓ “The most good for the most people”
 - ❓ The definition of good?
 - ❓ The benefits and risks of fossil fuels?
 - ❓ Our responsibility to future generations?

The Categorical Imperative

- ❓ “Act only according to that maxim by which you can at the same time will that it should become a universal law” - Immanuel Kant
 - ❓ Carbon pricing in the developed versus the developing world?
 - ❓ Global implementation of carbon pricing?

A large blue geometric shape, consisting of a triangle and a trapezoid, occupies the right side of the slide. The triangle is on the left, pointing towards the center, and the trapezoid is on the right, pointing towards the right edge. The blue is a vibrant, medium-saturated shade.

6.

CONCLUSION

Conclusion

- ❓ Energy has magnificently improved the global standard of living.
- ❓ Through advances in technology, fossil fuels have gotten progressively cleaner, and there is no reason to believe that they cannot rival other forms of energy in eco-friendliness because:
- ❓ All processes of generating energy consume resources, be they at the point of construction or generation.
- ❓ Carbon pricing singles out fossil fuels and makes energy more expensive, lowering quality of life
- ❓ The moral debate surrounding energy must be reframed to take into account all the good done by fossil fuels

REFERENCES

- ❓ Carbon Pricing Leadership Coalition. “Why is everyone talking about Carbon Pricing?” *Carbon Pricing Leadership*, www.carbonpricingleadership.org/.
- ❓ Epstein, Alex. *The Moral Case for Fossil Fuels*. Portfolio/Penguin, 2014.
- ❓ Maughan, Tim. “The dystopian lake filled by the world's tech lust.” *BBC Future*, 2 Apr. 2015, www.bbc.com/future/story/20150402-the-worst-place-on-earth.<http://www.bbc.com/future/story/20150402-the-worst-place-on-earth>
- ❓ “State and Trends of Carbon Pricing 2017.” *World Bank Group: Climate Change*, Nov. 2017, https://openknowledge.worldbank.org/bitstream/handle/10986/28510/wb_report_171027.pdf.
- ❓ The Editors of Encyclopædia Britannica. “Categorical Imperative.” *Encyclopædia Britannica*, 10 Nov. 2014, www.britannica.com/topic/categorical-imperative.
- ❓ U.S. Energy Information Administration. “Annual Energy Review 2011.” p. 93., www.eia.gov/totalenergy/data/annual/pdf/aer.pdf.
- ❓ “What Does a Brighter Future Look Like?” Action For Energy, www.action4energy.org/.