

# Realistic Approaches

The greatest trick the devil ever pulled was convincing the world he didn't exist — Verbal Kint

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(This follows 07-unrealistic.)

# Goal

- ▶ Real reduction of CO<sub>2</sub> in the atmosphere.
- ▶ Not wellness solutions to anxiety.
  - ▶ I encourage your and others' wellness,
  - ▶ except when it distracts from what should be done,
  - ▶ and gives false illusion of progress.

# □ Co<sub>2</sub> Reduction Solutions

1. Must work around the world.
  - ▶ not all places are identical.
2. Must work over decades and generations.
3. Must not be too much against self-interest.
  - ▶ a little could be sustainable.
4. Must be able to sustain majority support.
5. Must work for 6-7 billion people in China, India, Africa, etc.

# Viabile Solutions

*Many small solutions. The big deal is voluntary adoption with large aggregation. (I am not against others; it's just not a planetary realistic approach.)*



1. Only **Economics** and **Technology** scale.
  - ▶ Fortunately, fossil fuels are expensive to obtain and move to destination.
2. Locally justifiable fossil-fuel taxes help.
  - ▶ Local health benefits are big. Real big!
3. Trees

# Advice To Environmentalists

- ▶ Focus laser-sharp on viable solutions
  - ▶ ... when temporarily in power.
- ▶ Don't push solutions that are hugely divisive and can be undone every four years.
- ▶ Look for *catalytic solutions*.
  - ▶ Get over the big one-time hump.
  - ▶ Ideally low expense with self-dynamic.

# War On Climate Change

- ▶ Haha — not true (see Ch 12).
- ▶ Tough to count up, but humanity's spending on fighting CC is tiny.
  - ▶ Definitely collectively suboptimal.
  - ▶ World collectively should spend more.
    - ▶ Better: *we* should spend more.
  - ▶ COP demonstrators are right on this point.

# Un Cop Demonstrators

- ▶ If you are one of them, stop kidding yourself and look around:

***YOU ARE OUT OF TOUCH***

You are just in your echo chamber.

- ▶ The world's 8 bln barely care.
  - ▶ They really care about their own problem of the day.
  - ▶ They are not highly educated activists.
  - ▶ Heck, even in wealthy places. Let's vote:
    1. *free tuition, or*
    2. *-0.1°C in 30years.*





*You Jackass professor [Lomborg]...*

- ▶ Compare CO<sub>2</sub> campaign not to university education and malaria eradication.
- ▶ Compare to useless military expenses!
  - ▶ Yes, I wish this too,
  - ▶ but this is fantasyland — not a chance.
  - ▶ Especially lamentable in Africa.

***Fight the Power** then? **The Man?** **Capitalism?***

# (1) Local Co<sub>2</sub> Taxes

## ▶ US Economists Statement

- ▶ We agree, but
- ▶ we are a little more worried about escape.
- ▶ Over 30 years, companies and industries can move to other countries.
- ▶ Also, only modest public support for proposal. CO<sub>2</sub> is not deadly and barely opposed. Other pollution is.

# Local *Fossil Fuel* Taxes

CO<sub>2</sub> may not be deadly, but fossil fuels are!

PM 2.5 particles:

- ▶ “Great”: visible, harmful, murder!
- ▶ Think 1 million deaths per year.
- ▶ Smog/health can mobilize population
  - ▶ clean air is a luxury good.

*I worry about clean coal, which is what Manchin wants for Build Back Better.*

# Local *Fossil Fuel* (Coal) Taxes

- ▶ Realistic local externality:  $\approx$  \$50/tCO<sub>2</sub>.
  - ▶ Location-specific: \$10 in AZ, \$100 in NJ.
  - ▶ Winners and losers.
  - ▶ Difficult even within the same country,
  - ▶ but local pollution fighting has a chance.

*Just start by removing darn \$10-\$20/tCO<sub>2</sub> subsidies on fossil fuels!! Don't worry about \$100/tCO<sub>2</sub> 10 years from now. Worry about **NOW!***

## (2) Technological Change

- ▶ Dominant clean tech is within reach!
  - ▶ Market agrees: Exxon < Nextera
- ▶ Solar/wind are cheapest energy **ever!**
  - ▶ Storage remains big problem (see Ch9).
- ▶ Tech is about two decades away.
  - ▶ Invest in RDD to speed up.
  - ▶ Subsidize FOAK

*German windmills. German firms were not prime beneficiary, though. Good example of example ;-).*

# Next Chapters

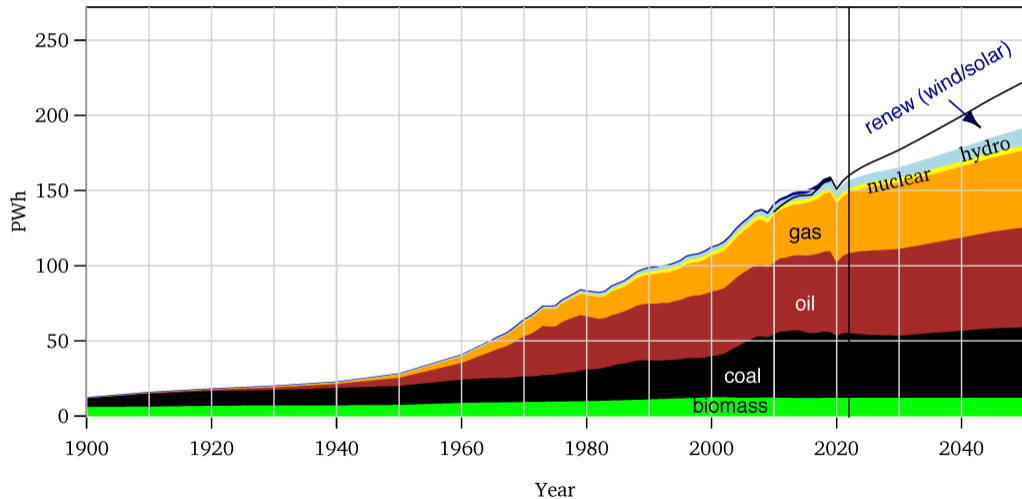
- ▶ You really need to understand what's technologically feasible,
  - ▶ Now and (*perhaps*) in the future.
  - ▶ Save the world and get rich.
  - ▶ Like computers in 1980.
- ▶ What are the magnitudes? (Recall Ch.1.)
- ▶ Where are the (potential) bottlenecks?

# Some More Big Problems

- ▶ Public is ignorant and easy to sway:
  - ▶ Outrage makes clicks.
  - ▶ Many journalists are ignorant or conflicted.
  - ▶ Even some scientists are too alarmed to remain fair and objective.
  - ▶ And foreign nations stoke fire with systematic misinformation campaigns.

*It's not as bad as it seems, but...*

# Existing Problem Is Big





# Social Return On Rdd Investment

- ▶ Irrelevant but interesting:
  - ▶ R.o.R has to work for entrepreneurs,
  - ▶ and it also happens to work for the world!
  
- ▶  $\approx$  \$5-\$10 for every \$1 invested!
  - ▶ OECD+US can even go it mostly **alone!**
  - ▶ competitive aspects can push it further.

# Our Messaging Recommendation

1. Clean energy technology is in *your* own interest.
  - ▶ It will create well-paying jobs and prosperity, for *you* and for *your* children.
2. Reducing fossil fuel use is in *your* own interest.
  - ▶ They are harming *your* health *today*.

*Reduce dwelling on antagonizing, shaming, divestment, international treaties, United Nations, China, global warming, etc. — all the things activists like. Get rich on the right activism!*

# Conclusion

- ▶ Pick battles (more) smartly.
- ▶ Lots of useful approaches, especially:
  1. Invest in clean technology, and
  2. advance local fossil-fuel (health) taxes.
- ▶ Today's Situation:
  - ▶ Good approaches are already pursued, but not enough.
  - ▶ Dumb approaches are also pursued.
  - ▶ Please shift resources towards effective.