## **Key Messages on Energy Policy and Fossil Fuels**

By: Alex Epstein, author, *The Moral Case for Fossil Fuels*

### 1. The life-and-death importance of making the right energy choices

* **Energy policy has a fundamental impact on human flourishing: health, prosperity, happiness.**
	+ Energy is the technology that powers every other technology.
	+ Abundant food, clothing, shelter, medical care, and education all require abundant energy.
	+ 7.5 billion people need energy that is as abundant, affordable, reliable, and safe as possible.
	+ 3 billion people have virtually no energy, which means the world needs vastly more energy.
		- 1.1 billion have no electricity whatsoever. (Source: IEA Energy Access Database)
		- 2.8 billion still heat their homes or cook their food with wood or animal dung. (Source: IEA Energy Access Database)
	+ It is very difficult to develop technologies that produce abundant energy.
		- In the history of humanity many technologies have promised results but only three technologies have produced enough for even 100 million people: fossil fuel energy, nuclear energy, and hydroelectric energy, which together account for 96 percent of the energy the world uses. (Source: BP Statistical Review of World Energy.)
	+ The energy choices of the United States of America will impact the quality of life of all our citizens and billions around the world.
		- If we increase access to energy we can improve our standard of living and spread it to billions more.
		- If we decrease access to energy, billions of people’s lives will get worse.

### 2. The right framework for thinking and talking about our energy choices

* **To make the right choices we need the right decision-making framework.**
	+ Every thought process and discussion has a framework—a starting structure, usually invisible, the determines how facts are processed.
* **Full context: We have a moral responsibility to carefully weigh the pros and cons of every energy technology and policy.**
	+ Goal 1: Making the right choice requires being even handed: looking at both pros and cons. *Analogy: If we're making a vaccination decision we need to look at both benefits and side effects.*
	+ Problem 1: Most energy conversations, including by very smart people, are extremely biased against fossil fuels, nuclear power, and hydroelectric power.
		- Example: When we talk about fossil fuels and nuclear we only talk about negatives and when we talk about solar and wind we only talk about positives.
		- Example: We condemn coal for having dangerous mining practices but ignore the far more dangerous mining practices involved in producing solar power, wind power, and electric car batteries.
		- This is like making a decision about vaccinating a child by only looking at the benefits or only looking at the side-effects—you can't make the right decision.
		- We are so self-righteous about our bias against fossil fuels that we insult anyone who suggests their positives outweigh their negatives, calling them "climate change deniers" when they are in fact "climate thinkers."
			* Calling a supporter of fossil fuels who believes that the benefits of fossil fuels outweigh their warming impact a "climate change denier" is like calling a supporter of vaccines a "vaccine side-effect denier."
	+ Goal 2: Part of being even-handed is precision: we not only look at both benefits and costs, we need to look at their precise magnitudes. *Analogy: If we're making a vaccination decision we need to know the magnitude of the benefits and the magnitude of the side effects.*
		- Are the benefits life-saving or minimal?
		- Are the side-effects a rash or full-blown autism?
	+ Problem: Most energy conversations are extremely sloppy about the magnitudes of fossil fuels' risks, often exaggerating them.
		- Example: We are told that CO2 warming is established—"97% of climate scientists agree that climate change is real"—but not how significant the established warming is. We're just supposed to assume it's huge.
		- Example: We are told it's established that CO2 levels are rising, but not how fast—is it 2 feet in 100 years like the UN says or 20 feet in a few decades like Al Gore says? We're just supposed to assume it's huge.
	+ Solution: We need to reject bias and sloppiness and instead make full-context analysis part of our framework, looking carefully at the pros and cons of every alternative.
		- Thus, when we consider fossil fuels, we should not write them off as bad because they cause some man-made CO2 and some man-made warming.
		- We should look carefully at the full context of their potential impacts on human flourishing now and in the future.
* **Pro-human: Our goal should be to make the energy choices that most positively impact human beings, not that least impact the rest of nature.**
	+ Making the right choice requires clarity about our standard of right and wrong.
	+ Problem: Most energy conversations prioritize unchanged nature over human life.
		- Example: There is almost no public sympathy for the 3 billion human beings with little to no access to energy, but there is enormous public sympathy to any disruption to the lives of polar bears.
		- Example: Opponents of fossil fuels claim to be concerned about CO2, but oppose the two most affordable and reliable sources of non-carbon energy: hydroelectric power and nuclear power, because they change nature "too much."
		- Example: Instead of pursuing "superior energy" just like we pursue superior computers and superior medicine, we pursue "green" or "renewable" energy that excludes the only three sources of energy that can produce abundant energy.
	+ Our standard of right and wrong should not be minimizing human impact but maximizing human flourishing now and in the future.
		- Human flourishing includes a good environment, which is not the same thing as an unchanged environment.
		- Nature does not give us the standard of living we need: we need to transform it.
		- There is nothing inherently wrong with impacting—changing—climate. We enhance our lives by changing our indoor climate all the time, and we should strive to change our outdoor climate in ways such as neutralizing deadly storms. We just want to make sure that any change we make is a new positive for human flourishing.
		- We should not have a "green" or "renewable" energy policy, we should have a "superior" or "pro-human" energy policy.
* **Once we are clear on our framework, then we can find and process the full context of facts about fossil fuels' impact on human flourishing.**

### 3. The full context of facts about fossil fuels' impact on human flourishing

* **Exploring the potential benefits of fossil fuel use**
	+ The fossil fuel industry is the only industry that can produce affordable, reliable, scalable energy for billions of people.
		- The fossil fuel industry produces over 80% of the world’s power because it is the only industry that has figured out how to produce cheap, plentiful, reliable energy for electricity, transportation, and heating on a scale of billions.
		- Since the energy industry is the industry that powers every other industry, the fossil fuel industry increases productivity and prosperity in every area of life, from agriculture (diesel-powered farm equipment) to hospitals (24/7 electricity).
		- The only industries that can meaningfully supplement fossil fuel energy are the nuclear and hydroelectric industries, which are widely opposed by environmentalists.
			* Even without this opposition fossil fuels would still be irreplaceable for decades to come.
			* Hydro is limited by lack of suitable locations.
			* Nuclear has the long-term potential to expand greatly, but is many decades away from scaling to the level of billions.
		- The solar and wind industries should be free to try to develop and compete, but it must be recognized that they are currently unreliable forms of energy that have added great expense to every grid they have been used on.
		- For these reasons, any restriction on fossil fuel use would do devastating damage. This must be factored into all policy debates over restricting fossil fuels to reduce CO2 or other byproducts.
* **The number one environmental concern, climate impacts, is far different in nature when we look at the full context from a pro-human perspective.**
	+ To assess the climate-related impacts of fossil fuel use, we have to carefully assess the consequences to human flourishing of 1) the warming impact of CO2, 2) the fertilizing effect of CO2, 3) the protecting effect of affordable energy for all climate danger.
	+ The warming impact of CO2 is mild and quite possibly positive—in no way does it justify restricting fossil fuel use whatsoever.
		- It is a proven but little-known fact that the greenhouse effect of CO2 is a diminishing, logarithmic effect; each molecule of CO2 warms less than the last.
		- The belief that increases in CO2 will cause runaway warming is based on speculative climate dynamics represented in models that have utterly failed to predict climate.
		- Global average temperatures and CO2 levels are near all-time lows from a geological perspective; today’s CO2 levels are an estimated 1/20th their all time high (a highly fertile  period).
		- Warming is almost universally desired among civilizations, with cold-related deaths dramatically greater than heat-related deaths. In general, life thrives under warmer conditions.
	+ The widely-ignored fertilizing effect of CO2 is significant and positive, yet ignored; a proper energy and environmental discussion must take it into account.
		- Increasing CO2 levels is a proven driver of plant growth, which is why greenhouses contain 3 times as much CO2 as our atmosphere.
		- Satellite data show dramatic increases in plant growth in uninhabited locations as CO2 levels have increased over the past several decades.
		- Increased CO2 has also contributed significantly to crop yields and helped millions avoid malnutrition or starvation.
	+ The widely-ignored protecting effect of fossil fuels is spectacularly positive; it has helped us take the inherently dangerous climate and make it far safer than it has ever been.
		- While the climate debate treats the global climate system as naturally stable and safe, it is in fact naturally volatile and vicious. Climate safety requires climate protection through development and technology—both of which are fueled by affordable energy.
		- The international disaster database, which tracks climate-related deaths—including deaths  from flood, droughts, extreme heat, extreme cold, storms, and wildfires—shows a 98% decrease in the rate of climate-related deaths since significant CO2 emissions began 80 years ago.
		- Fossil fuel use doesn’t take a safe climate and make it dangerous, it takes a dangerous climate and makes it safe.

### 4. The pro-human policy toward fossil fuels

* Freeing fossil fuel use instead of restricting it means billions of people will have access to energy who otherwise wouldn’t.
* Freeing fossil fuel use instead of restricting it is compatible with a safe climate, a clean environment, and continuous progress.
* We should be free to produce and use whatever forms of energy we judge best, so long as we follow laws against pollution and endangerment.

### 5. Messaging that reframes the conversation instead of reacting to the conversation

* Arguing to 0: Most supporters of fossil fuels are ineffective because they accept the biased, sloppy, anti-human framework of fossil fuel opponents—then reactively try to contradict individual facts.
* Arguing to 100: I have had enormous success persuading others by reframing the conversation in pro-human, full-context terms and then presenting the facts.
* Arguing to 100 can be done in any form, from 1-on-1 conversation to tweets.
* My company, the Center for Industrial Progress, is a for-profit think-tank that creates custom (white-label) pro-human messaging for clients.
* We have a policy of assisting the government free of charge and would be honored to help you support pro-human, pro-freedom energy policies.
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