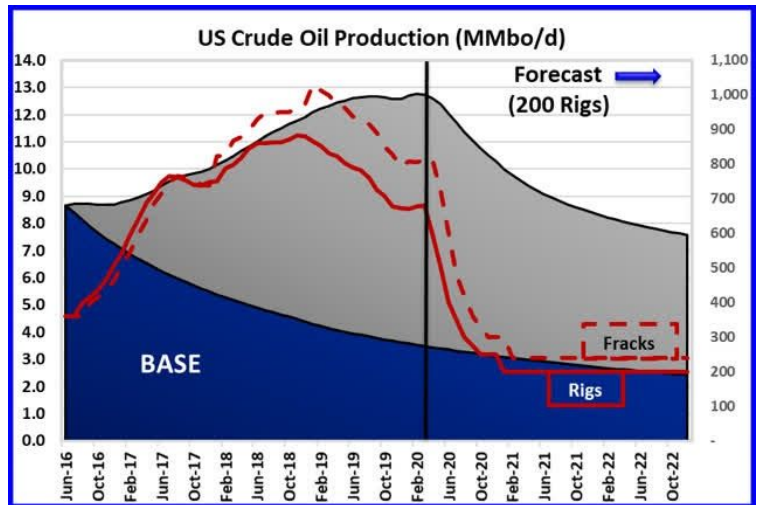


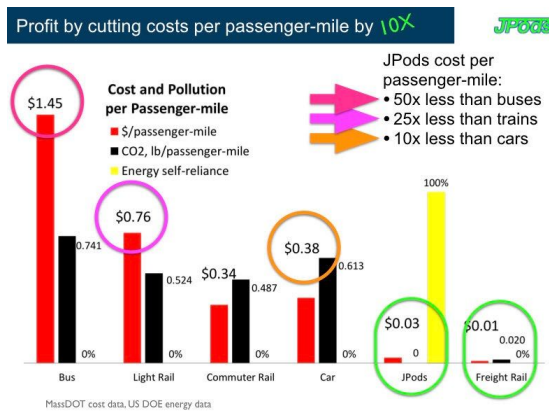
Objective:

Today is March 18, 2020. Immediately begin building solar-powered mobility networks to postpone a debt collapse of the US oil supply chain.

- Solar-powered mobility networks are 10 times less expensive to build and operate than oil/coal burning infrastructures.
- The U.S. Fracking Boom is busting into bankruptcy which is highly likely to collapse the oil supply chain. The U.S. is highly likely to see a [25% decrease in access to domestic oil](#) in the coming year.



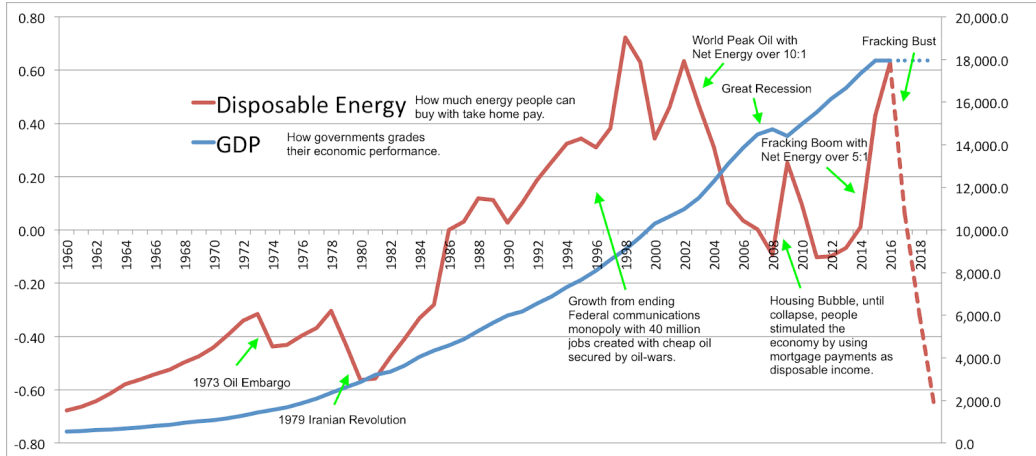
- If solar-powered mobility networks are not well underway before the collapse of the oil supply chain, there will not be the energy and mobility necessary to power the transition from oil to solar, creating a higher probability of Oil Famine. It normally requires 40 to 200 years to retool a major infrastructure. We have wasted 50 years since U.S. Peak Oil in 1970.



Baseline Facts:

- Life requires energy.
- Energy, applied by labor, creates the economy that supplies the needs and wants of society.
- Disposable Energy, or how much each person can buy with their take-home-pay, measures economic sustainability.

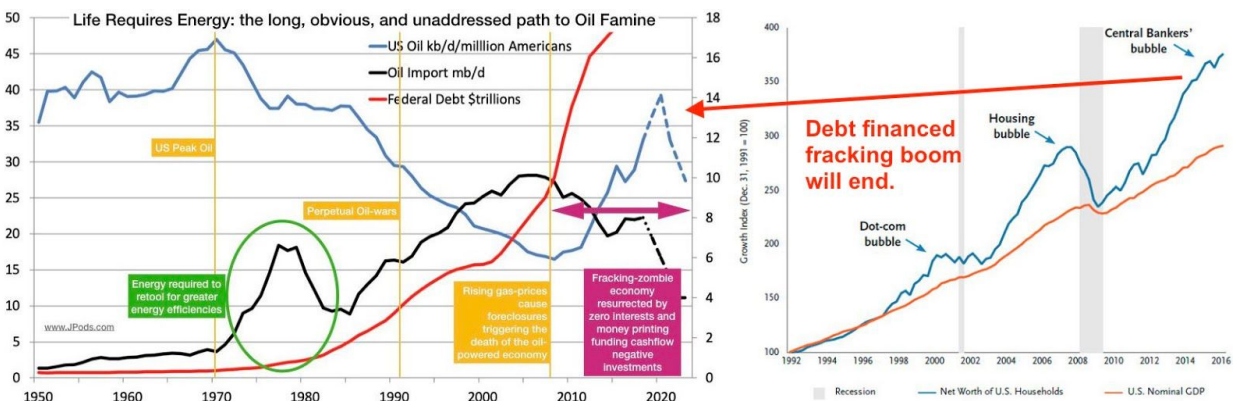
- In 1956, U.S. Peak Oil was forecast for about 1970.
- In 1970, the U.S. hit Peak Oil per capita.
- By 2008, rising gasoline prices decreased family disposable income by more than \$2,000/year, significantly decreasing Disposable Energy. Enough families used mortgage payments to buy gas to keep their jobs that foreclosures collapsed the banking system. GDP (blue) gave no warning of the 2008 Great Recession. Disposable Energy began warning of the 2008 foreclosure collapse in 1998.



- In 2010, Federal zero interest rate policies caused about \$300 to be invested in fracking and the subsequent Fracking Boom.
- Between 2010-2020, Frackers lost about \$207 billion while increasing U.S. oil output to 11 million barrels/day. The U.S. still imports 6.3 million barrels per day.

Life Requires Energy:

As forecasted in 1956, U.S. Peak Oil was in 1970. Americans are now dependent on debt buying foreign oil and foreign oil-wars to secure access to that oil.



Eight U.S. Presidents Defined the Risks ([oil data](#)):

- President Obama, 2010, *"For decades we have known that the days of cheap and easily accessible oil were numbered..."* Foreign oil = 49.2%.
- President W. Bush, 2006, *"Keeping America competitive requires affordable energy. Here we have a serious problem. America is addicted to oil, which is often imported from unstable parts of the world."* Foreign oil = 59.9%.
- President Clinton, 1995, *"The nation's growing reliance on imports of oil...threatens the nation's security...[we] will continue efforts to...enhance domestic energy production."* Foreign oil = 44.5%.
- President Bush, 1992, *"There is no security for the United States in further dependence on foreign oil."* Foreign oil = 40.6%.
- President Reagan, 1981, *"While conservation is worthy in itself, the best answer is to try to make us independent of outside sources to the greatest extent possible for our energy."* Foreign oil = 33.6%.
- President Carter, 1979, *"This intolerable dependence on foreign oil threatens our economic independence and the very security of our Nation. The energy crisis is real. It is worldwide. It is a clear and present danger to our Nation. These are facts and we simply must face them."* Foreign oil = 43.1%.
- President Ford, 1975, *"First, we must reduce oil imports by 1 million barrels per day by the end of this year and by 2 million barrels per day by the end of 1977. Second, we must end vulnerability to economic disruption by foreign suppliers by 1985."* Foreign oil = 35.8%
- President Nixon, 1974, *"At the end of this decade, in the year 1980, the United States will not be dependent on any other country for the energy we need."* Foreign oil = 30%.

Debt Collapse of the Oil Supply Chain

Syria in 2010 and Venezuela today are experiencing Oil Famine. It is not because they lack oil. It is because oil's long and capital-intensive supply chain has collapsed.

Do the math:

- Cost per barrel to exact fracked oil is [roughly \\$50](#).
- [Price is \\$20.81](#) a barrel as of Mar 18, 2020.
- At 11 million barrels per day, the loss is \$321 million/day or \$117.2 billion/year.

[NINE-YEAR LOSING STREAK CONTINUES FOR US FRACKING SECTOR](#)

Oil and gas output is rising but cash losses keep flowing

Oil prices rose and oil and gas production boomed during the third quarter of 2018, but the U.S. fracking sector continued its nine-year streak of cash losses.

All told, a cross-section of 32 publicly traded fracking-focused companies spent nearly \$1 billion more on drilling and related capital outlays during Q3 than those companies generated by selling oil and gas. Only 10 of the 32 companies secured positive cash flows for the quarter, and only eight generated positive cash flows over the trailing 12-month period.

These results may surprise those who incorrectly equate rising output with financial success. U.S. oil and gas production hit an all-time high during the third quarter, even as oil prices rose to \$70 per barrel. But even with those advantages, our sample of mid-sized oil and gas producers continued to hemorrhage cash, due to the high cost of drilling and the industry's seemingly insatiable thirst for capital.

Background Documents:

- [Energy Economics](#)
- [U.S. Oil Production Could Drop By A Quarter](#)
- [Frackers Scrounge for Cash as Wall Street Closes Doors](#)
- [U.S. Shale Drillers Could Be Casualties of Oil-Price War](#)
- [Bankruptcies in Fracking Sector Mount in 2019](#)
- [Fracking chaos: As debt-ridden gas producers go bankrupt, who'll be left to clean up their mess?](#)
- [Is U.S. shale facing an 'unmitigated disaster'?](#)
- [Oil Goes Down, Bankruptcies Go Up - These 5 Frackers Could Be Next To Fall](#)
- [Fracking in 2018: Another Year of Pretending to Make Money](#)
- Bethany McLean:
 - [Summary of Saudi America](#)
 - [Saudi America interview with Chris Martenson](#), Mar 1, 2019.
- Old News: [1957 Admiral Rickover's Energy Slave Speech](#)