



**THE IMPENDING
WORLD
ENERGY MESS**

What It Is And What
It Means To *YOU!*





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Messages

- In the next 2-5 years, world oil production will begin to decline & will continue downhill.
- Oil shortages will deepen annually until mitigation takes hold more than a decade later. There will be no quick fixes.
- Annually declining world oil production will mean deepening economic distress for over a decade.
- Oil is energy / energy is not oil – It's a liquid fuels problem.

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Expecting World Oil Production Peaking and/or Decline Now or Soon

Statements & positions vary.

- | | |
|--|---|
| <ul style="list-style-type: none"> • IEA • Chevron • Shell • Total Oil • Statoil • Hess Oil • Toyota • Volvo | <ul style="list-style-type: none"> • James Schlesinger • Boone Pickens • Matt Simmons • Corps of Engineers • CIBC (Canada) • Raymond James • EWG (Germany) • U.K. Industry Oil Study Group • ASPO Organizations • Many retired oil geologists |
|--|---|

Well known deniers include EIA, OPEC, CERA, & ExxonMobil.

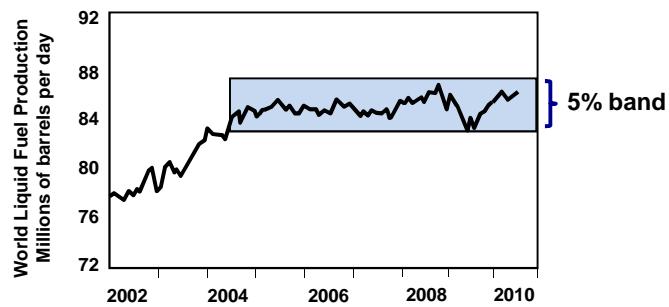
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A Sampling of Recent Warnings

- “... an imminent peak and sharp decline in oil production could cause a worldwide recession.” U.S. GAO – 2007
- “Peak oil is now.” German Energy Watch Group – 2008
- “By 2012, surplus oil production capacity could entirely disappear.....” U.S. Department of Defense – 2008 & 2010.
- “A global peak is inevitable. The timing is uncertain, but the window is rapidly narrowing.” UK Energy Research Centre - 2009
- “The next five years will see us face ... the oil crunch.” UK Industry Taskforce on Peak Oil and Energy Security – 2009

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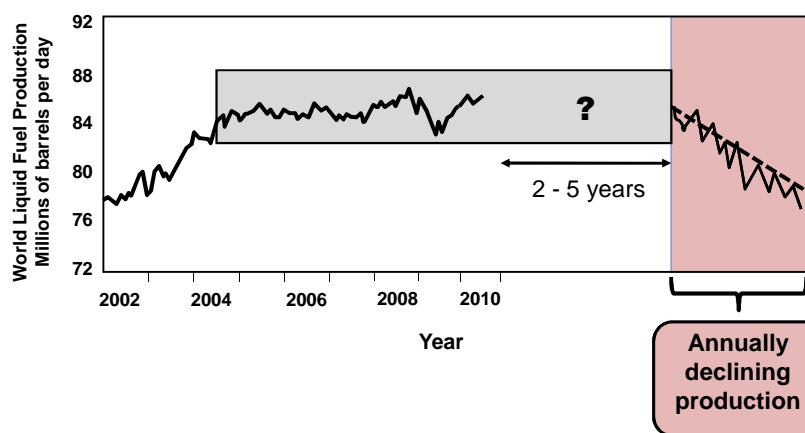
World oil production hit a plateau in mid 2004 & stayed in a narrow fluctuation range in spite of "The Great Recession."



Who predicted this?

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We believe that world oil production will likely stay on its current plateau & enter decline in 2 - 5 years.

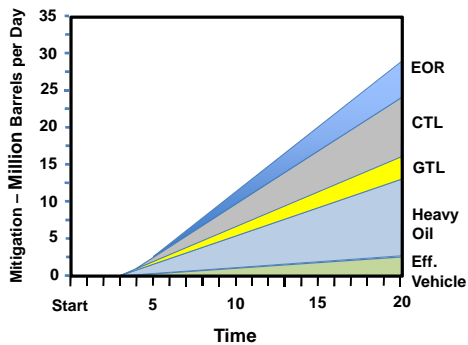


Annually declining production

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Worldwide crash mitigation describes the limiting case.

2005 Study for DOE

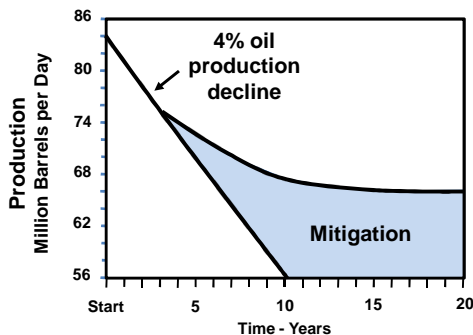


**Why these?
They are liquid fuels & ready for massive deployment.**

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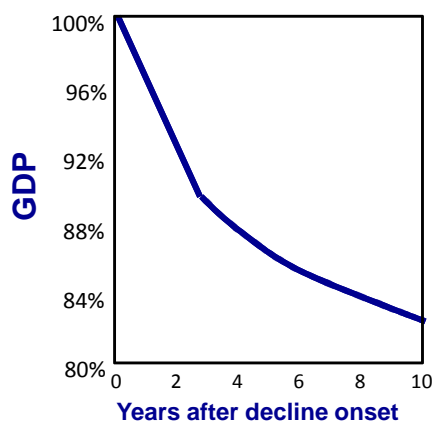
Our best case mitigation does not overtake expected world oil production decline for over a decade.

Why? Decline has a big head start.



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In the U.S. in 1973 & 1979, the oil shortage percentages were about equal to the decline in U.S. GDP. If the 1:1 ratio holds after world oil production decline, world GDP decline might look like this in the best case crash program mitigation.



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The experiences of 1973 & 1979 give insights for when the shock of world oil production decline becomes widely realized.

- A sudden awakening - panic, disorientation, & insecurity
- Immediate fuel shortages, as people top off their gasoline tanks & hoard
- Large increases in fuel prices due to much higher oil prices
- Difficult commuting due to high gasoline prices & growing shortages
- Stock markets declines due to fear, panic, & weakening economies.
- Declining real estate prices in areas far from work or public/mass transportation. Vacation & entertainment areas hard hit.

More →

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- Annually deepening recession until effective mitigation takes hold
- Increasing inflation due to much higher oil prices & shortages
- Growing unemployment due to business cutbacks.
- Declining world trade

~~“It will be different this time!”~~
 No.....
 “It will be the same this time,”
 but it will last much, much longer. The past was prologue.

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Concluding Remarks

- It's a liquid fuel problem, not “energy.”
- World oil production is about to go into decline, which means less & less available year after year until physical mitigation takes hold.
- Based on 1973 & 1979 “It will be the same this time,” except it will last much, much longer.
- We will have no choice but to mitigate on a massive scale. Severe economic & personal pain will trump all else.

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