

1.5 Hour PowerPoint Presentation

Civilization vs. the Oil Age

A MOST CRITICAL SUBJECT

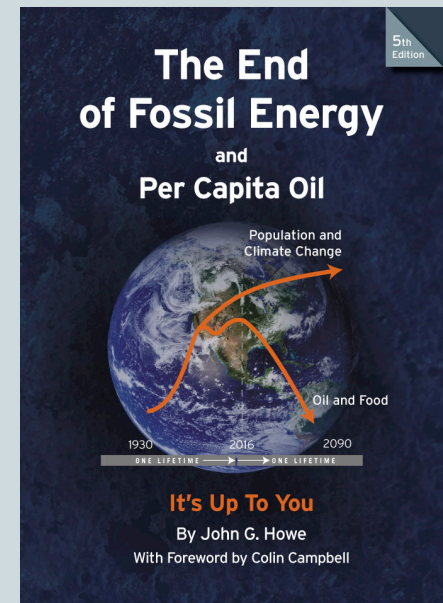
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Excerpts from the new book

The End of Fossil Energy and Per Capita Oil
(FIFTH EDITION)

Available at
amazon

This book is available directly from the author:
John Howe by email at: howe@megalink.net
and at our website www.solarcarandtractor.com.



Oil is a Most Important Natural Resource and Absolutely Fundamental to Industrialized Civilization

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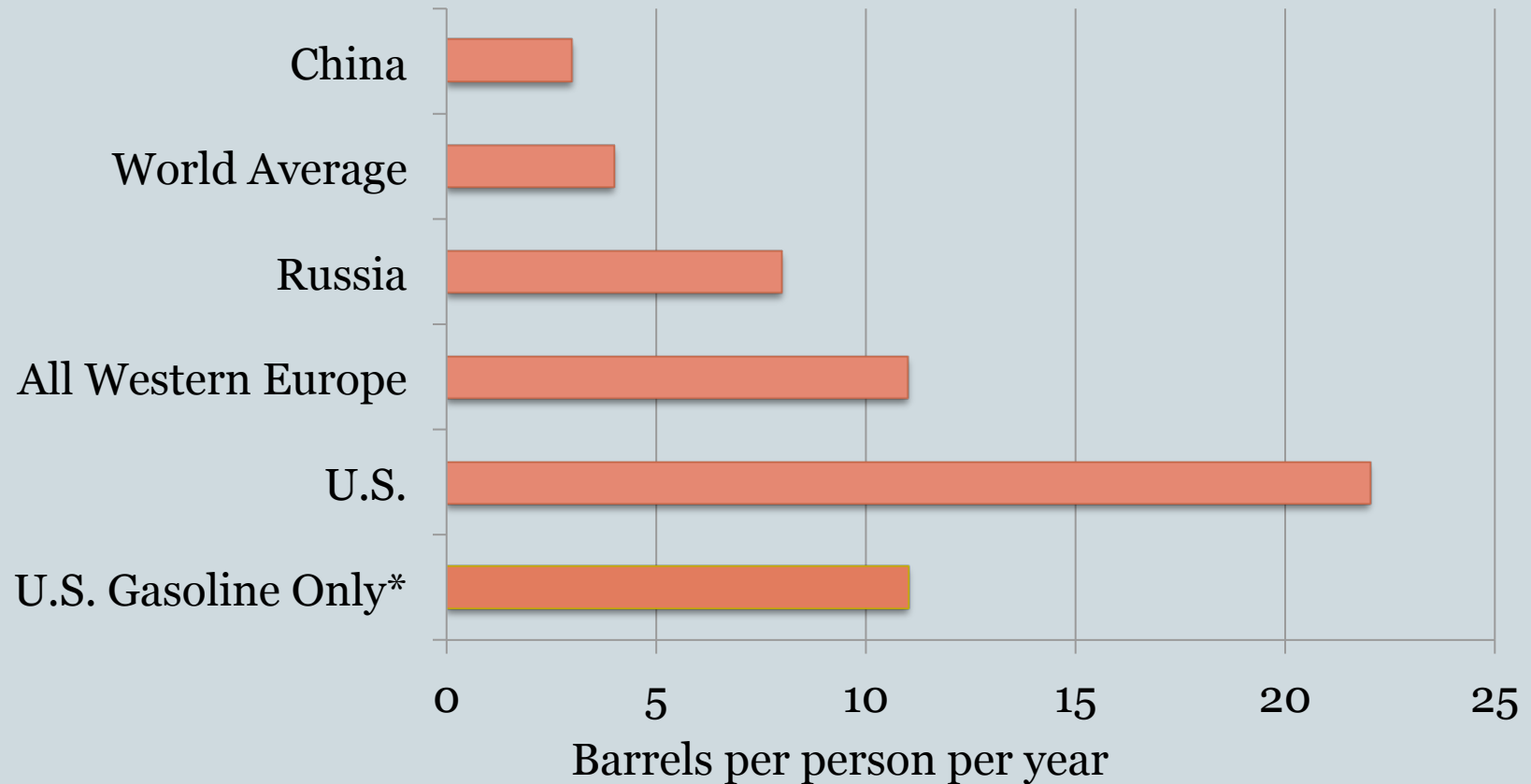
Oil is finite and non-renewable.

Oil provides the basic energy source for:

- food for seven billion people.
- most of the energy for modern transportation.
- support of other energy sources.
- raw materials for plastics and lubricants.

World Per Capita Oil Use

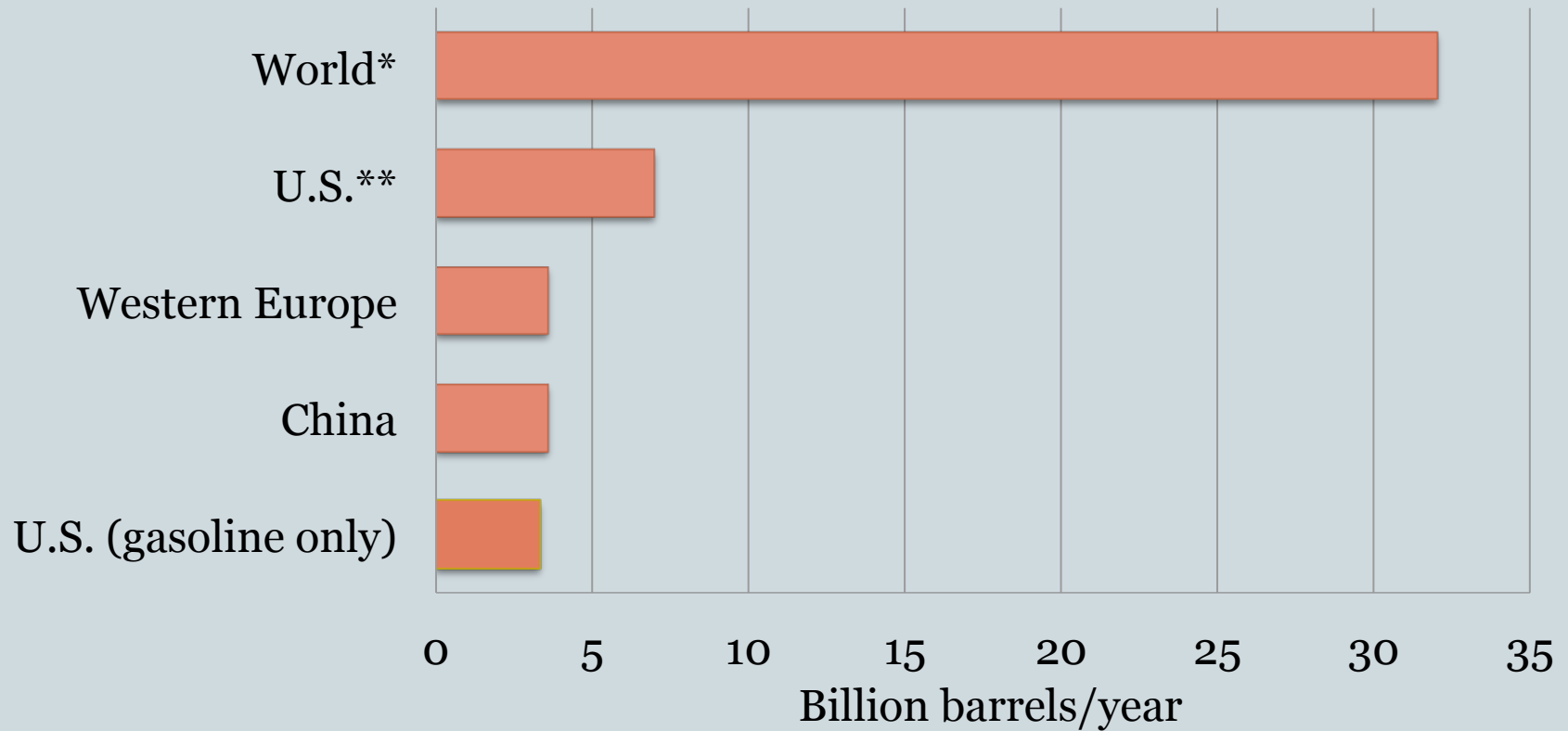
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** In the U.S. we consume more gasoline (to drive three trillion miles each year) than other countries consume in total combined oil.*

World Annual Oil Use

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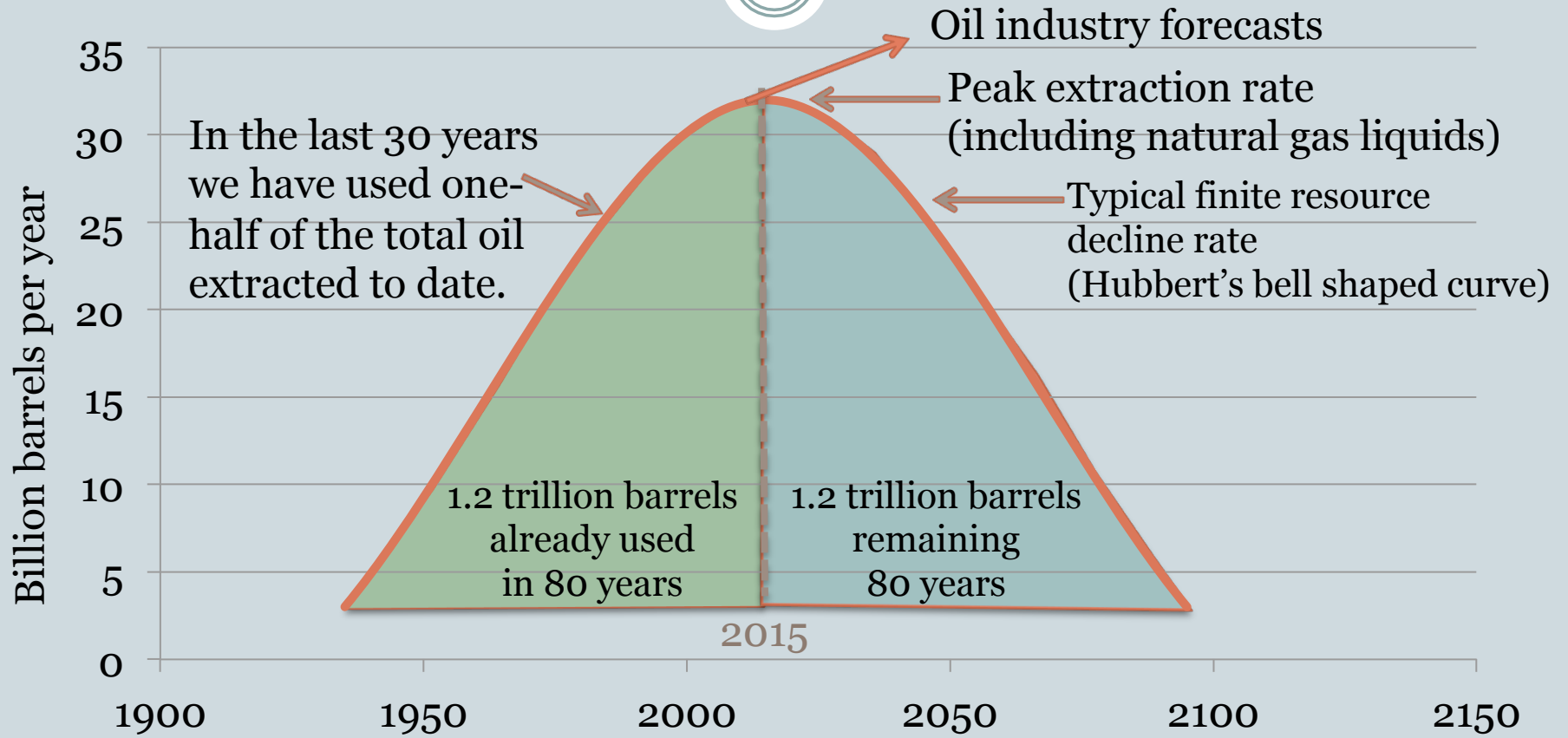
** The world uses one billion barrels of oil every 11 days.*

*** In the U.S. we use approximately $\frac{1}{4}$ of the world total oil consumption and one-half of that for gasoline*

The World Oil Age

IN TWO 80 YEAR LIFETIMES

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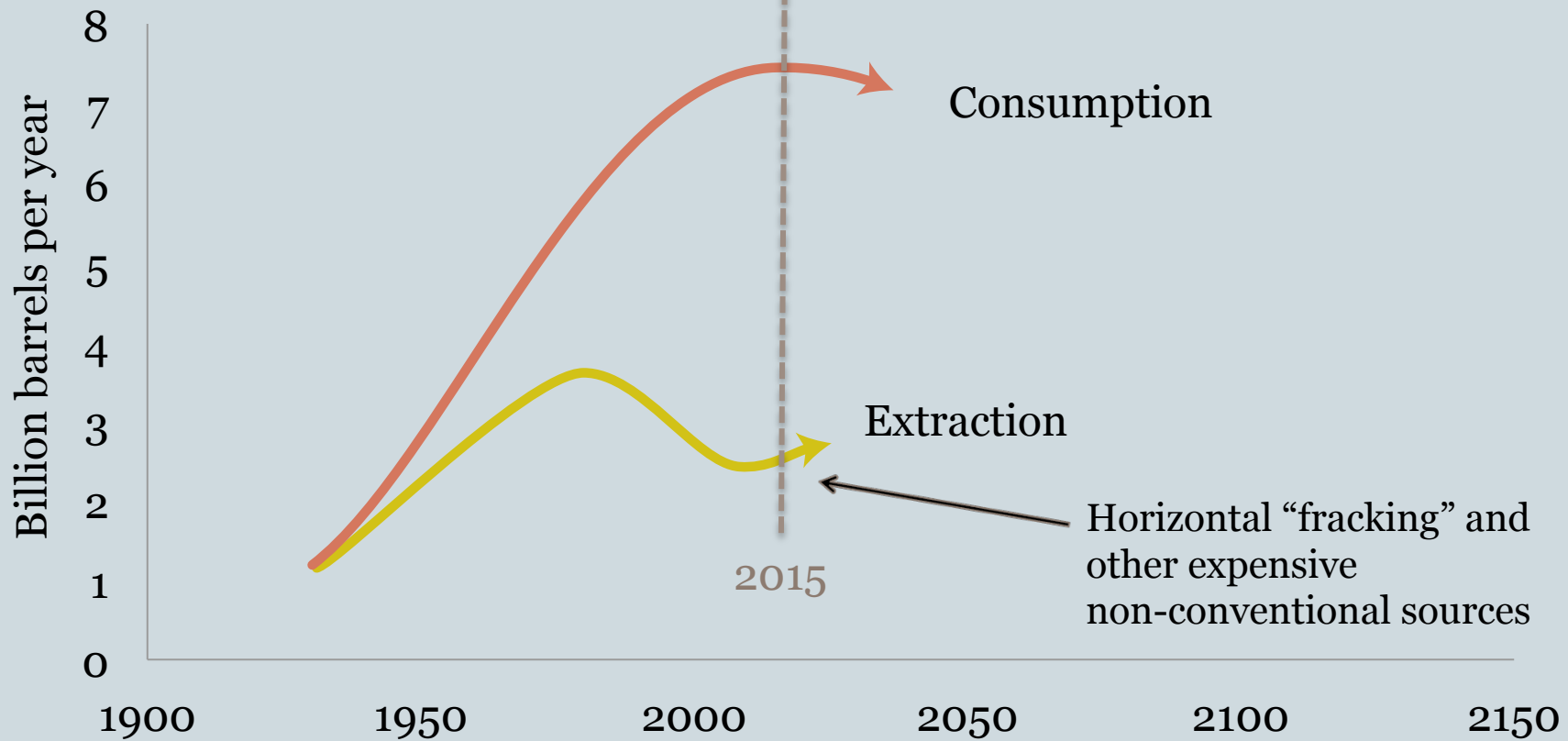


In the span of two lifetimes we will have used almost all of the oil reserves in the world.

The U.S. Oil Age

IN TWO 80 YEAR LIFETIMES

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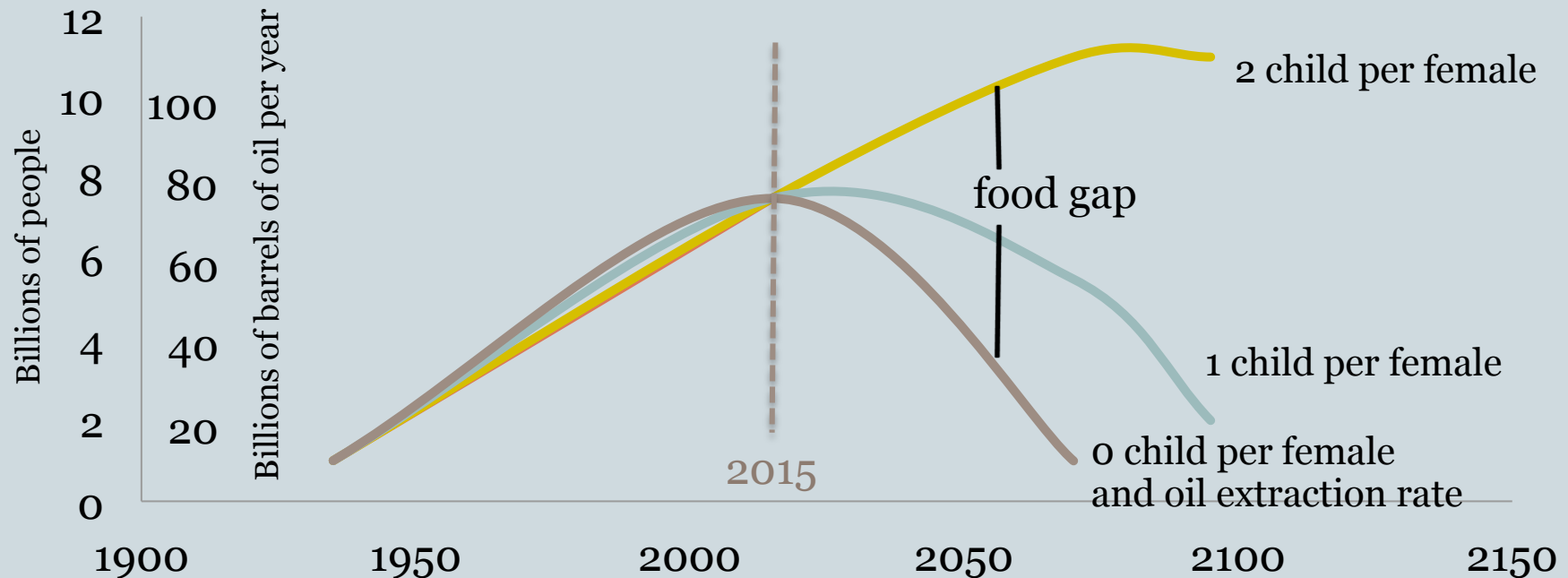


U.S. consumption rate grew while our extraction rate (including fracking and nonconventional) declined and recovered.

World Population Growth

IN TWO 80 YEAR LIFETIMES

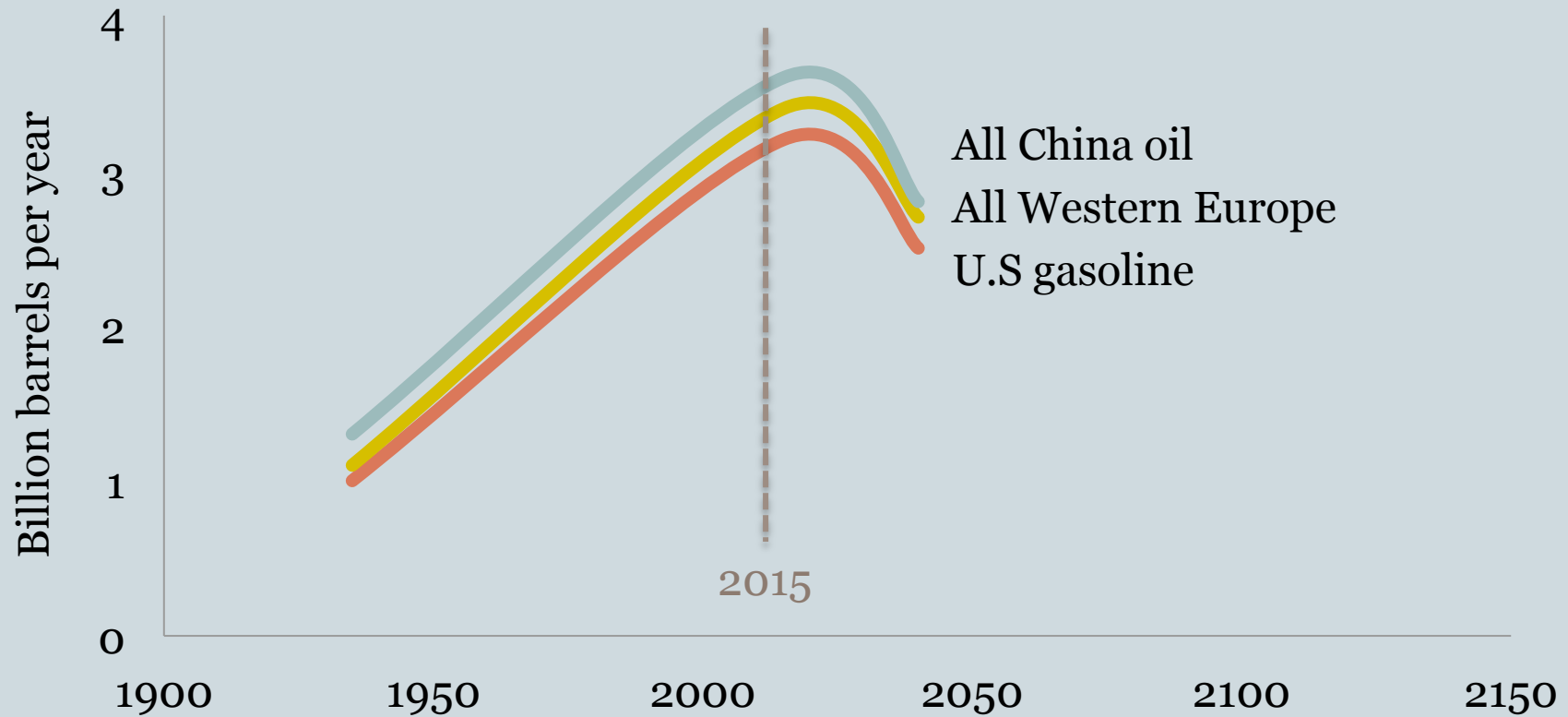
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The present world population growth rate is still over 2 children per female. Even if we reduce the growth rate to 1 child per female we still have a food gap between the global availability of oil and the number of people who need it to survive.

Focus on U.S. Gasoline Consumption

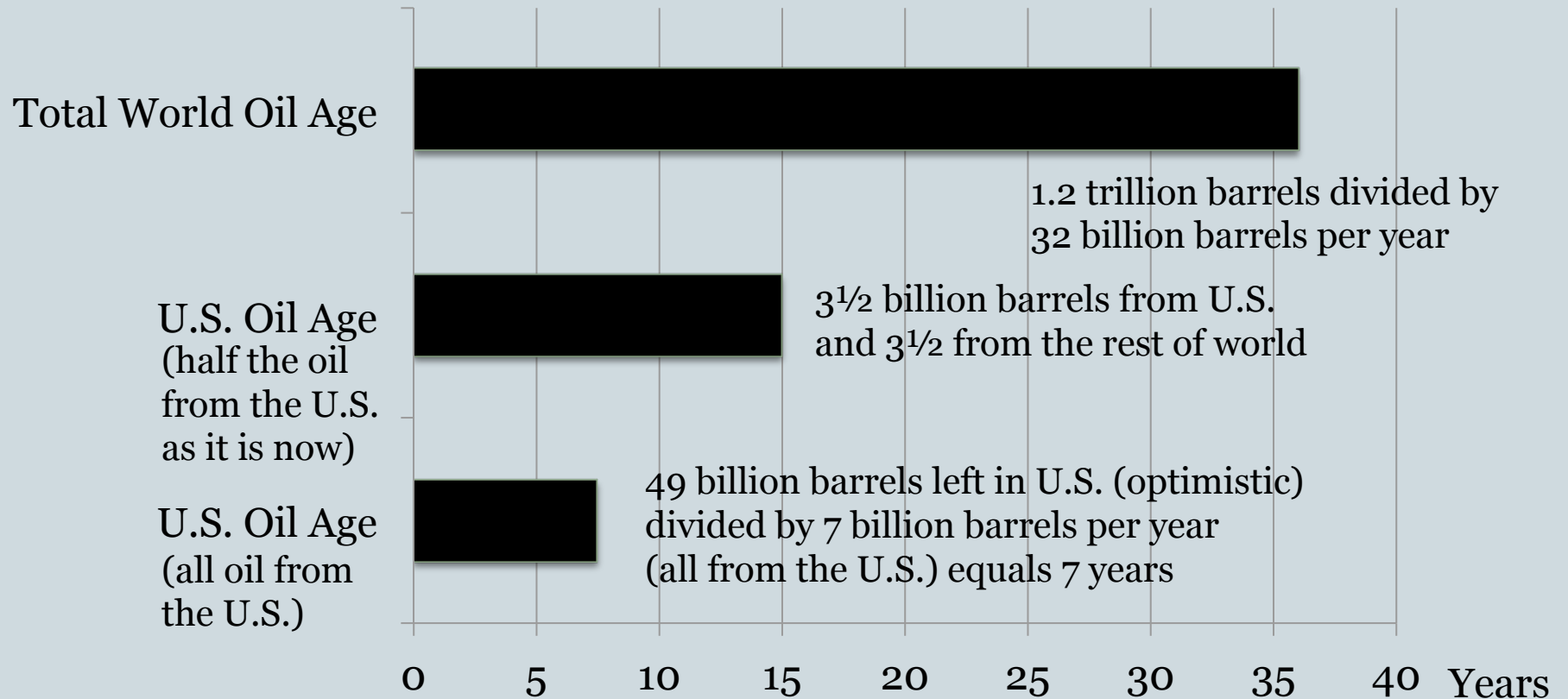
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In the U.S. we consume as much gasoline as China's total oil consumption.

Time Remaining in the Oil Age

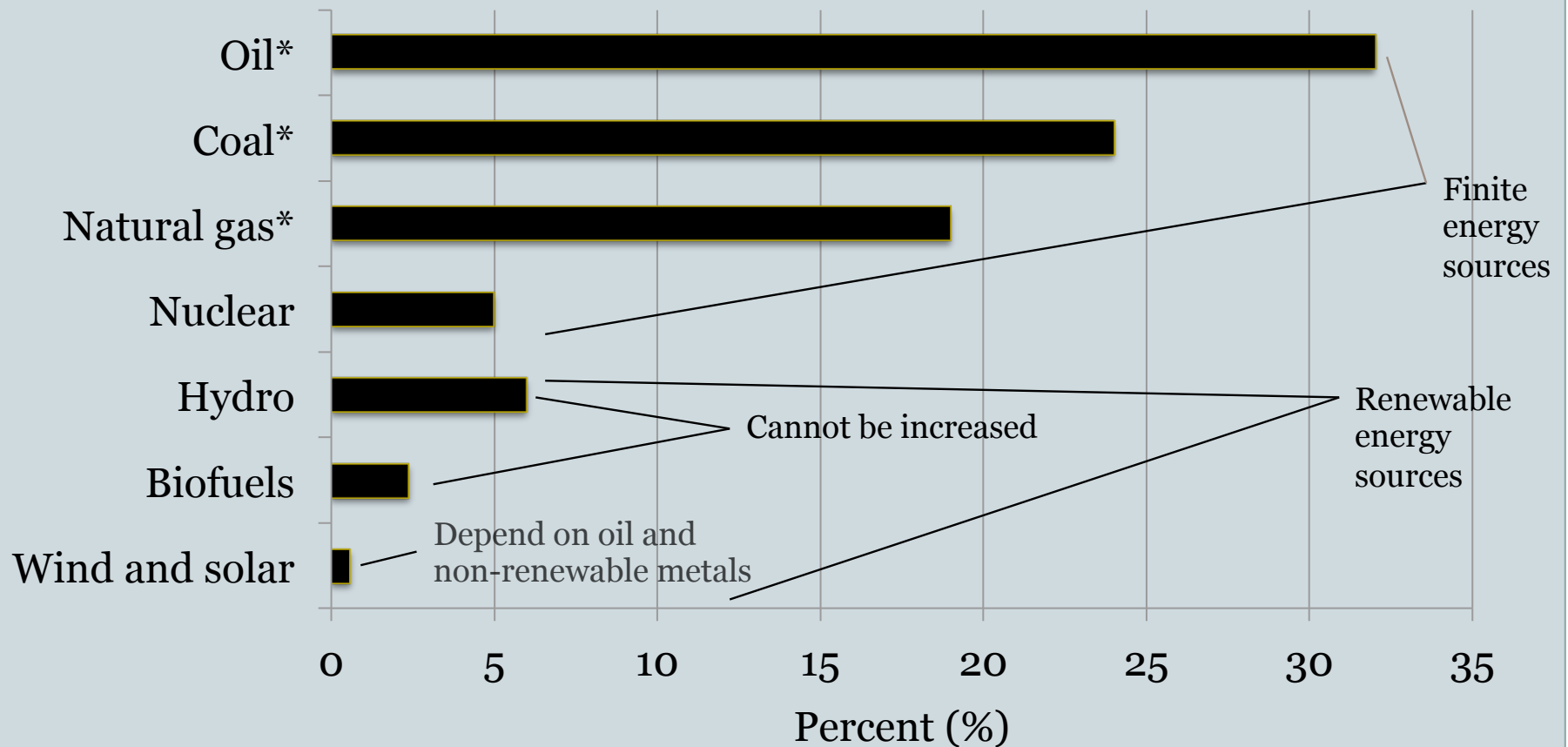
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7 years left at the present consumption rate

Percent of All World Energy

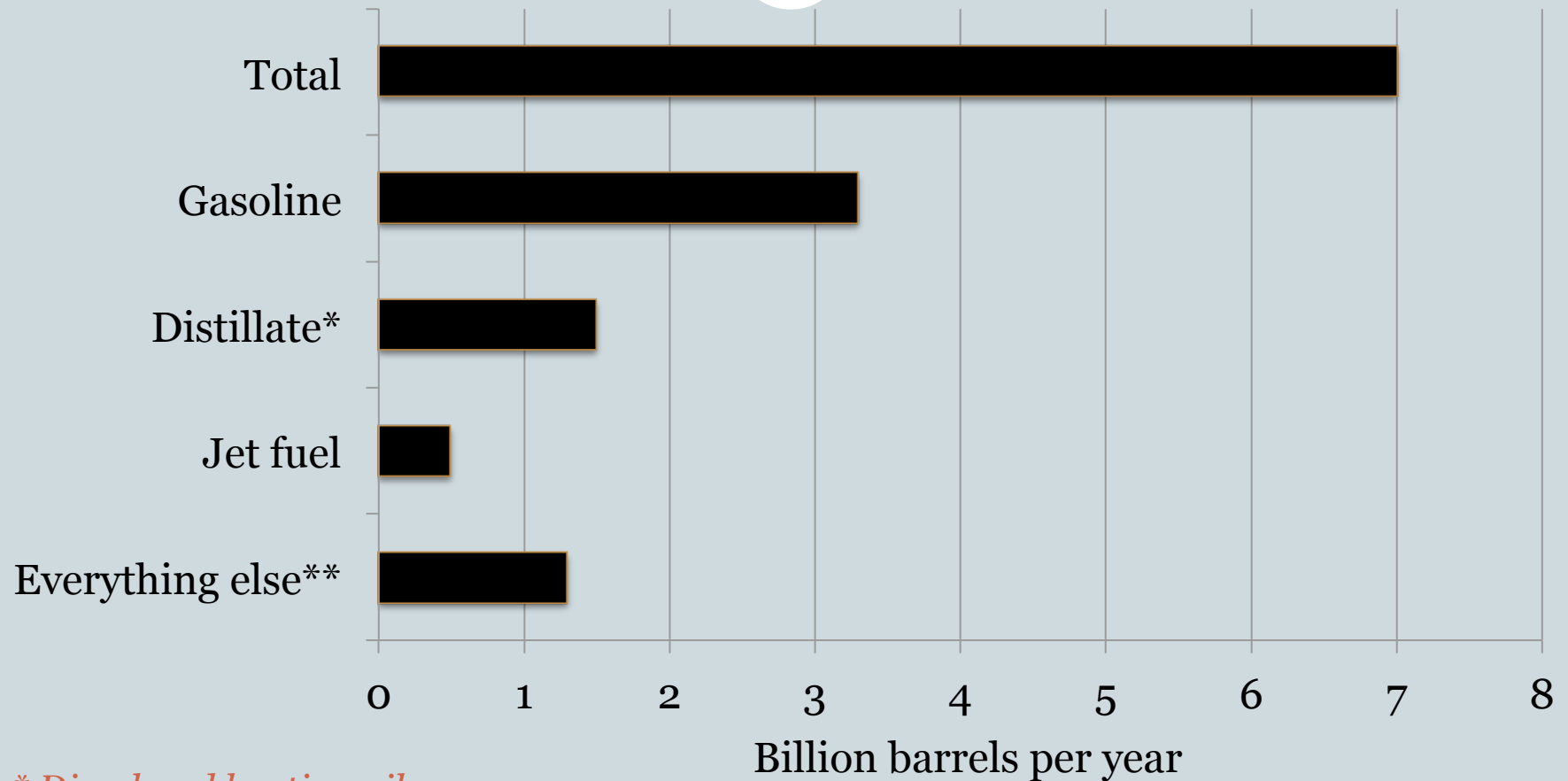
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* Oil, coal, and natural gas are finite and contribute to elevated levels of greenhouse gas.

U.S. Liquid Fuel Consumption

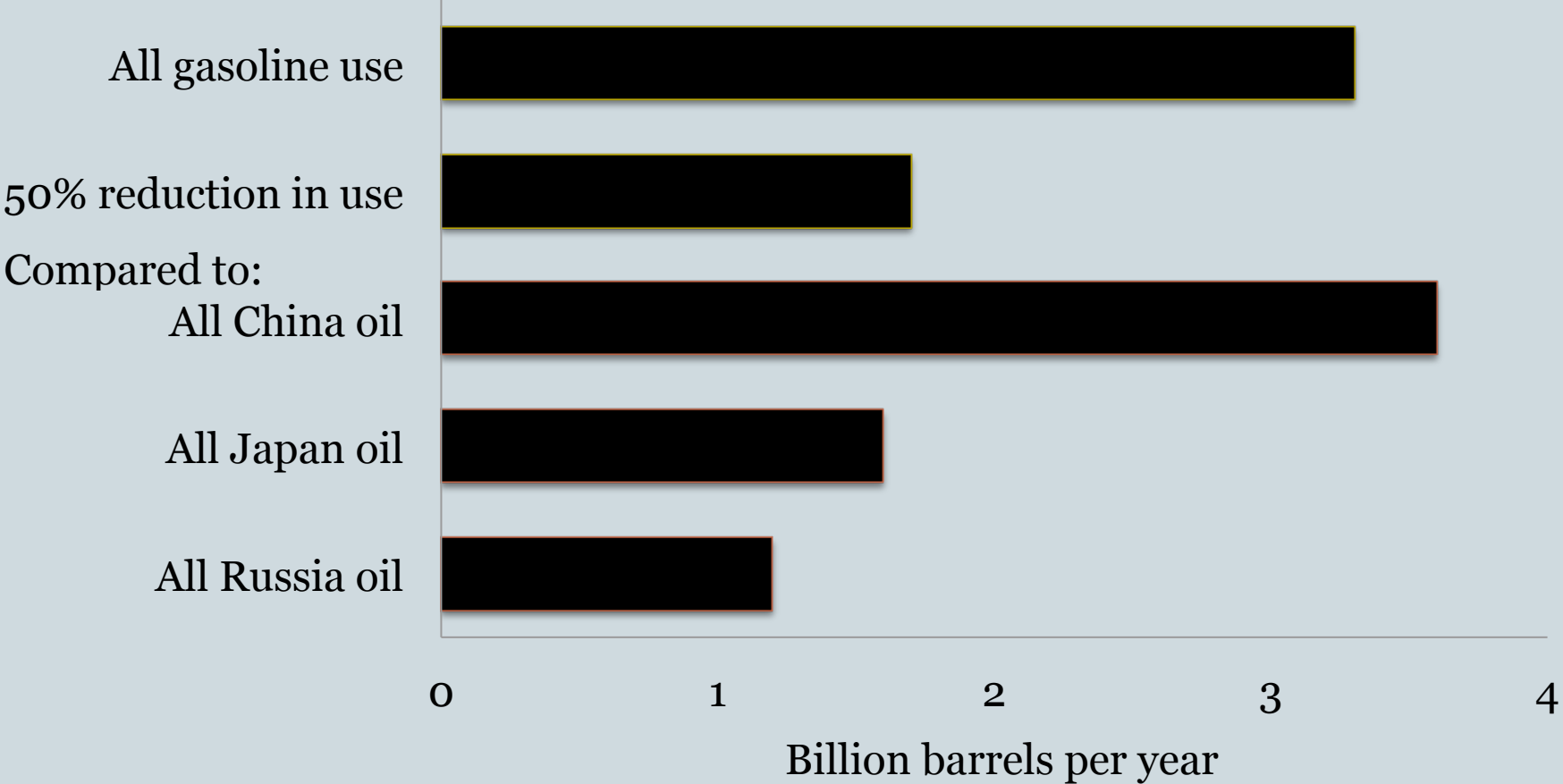
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* Diesel and heating oil.

** Including support of other energy sources.

The Case for 50% Gasoline Rationing



Other Positives for Gasoline Rationing

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- Consumption of 400 million gallons per day.
50% reduction to 200 million gallons per day.
- 200 million gallons per day \times \$3 per gallon =
\$600 million per day or \$0.22 trillion per year back into economy.
- Gasoline rationing would encourage mass transportation,
electric cars, and bicycles.
- Gasoline rationing would lower the cost of oil for other needs.
- Gasoline rationing electronic swipe cards could be saved or sold.

Gasoline Rationing vs. all CO₂ Sources

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World total: 36 billion metric tons per year

1/3 from China: 10.5 billion tons

1/7 from U.S.: 5.3 billion tons

U.S. coal: 1.7 billion tons

U.S. natural gas: 1.4 billion tons

U.S. liquid fuels: 2.2 billion tons

(including U.S. gasoline 1.1 billion tons)

50% gas rationing reduction =
0.5 billion metric tons per year

= 5% of all China's or 10% of all U.S. CO₂ emissions

Other Directly Related Issues

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The following chapters refer to the book The End of Fossil Energy and Per Capita Oil

Chapter 3

- A call for personal involvement
- Educate yourself, see Bibliography, websites
- Join mass movements
- Get into gardening
- Have a stand-alone solar survival system

Chapter 5

- A solar electric future, potential and limitations: cars, tractors, airplanes?? 18 wheelers??
- Battery storage, weight, recycling??
- Cost and hazards of lithium

Other Directly Related Issues (continued)

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Chapter 6

- Population and immigration demographics

Chapter 8

- Food availability on world, national, local, and personal scales

Chapter 9

- Localization, transition, resilience movements

Chapter 10

- The end of economic growth

Chapter 11

- The desperate need for decisive leadership
- Autocracy vs. democracy? (Plato's "philosopher king")

Conclusions

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- Our civilization is at the tipping point.
- Seriously question the future of a child born today.
- Climate change is a longer-term and therefore less serious problem.
- Please help network these thoughts.

John Howe

www.solarcarandtractor.com

[You tube.com/Howe Triple Crisis](https://www.youtube.com/HoweTripleCrisis)