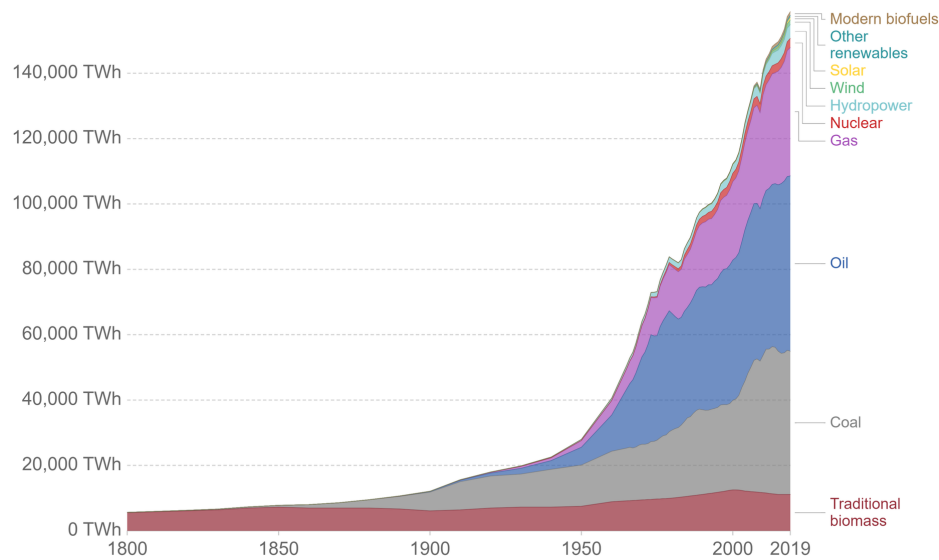


Global direct primary energy consumption

Direct primary energy consumption does not take account of inefficiencies in fossil fuel production.

Our World
in Data



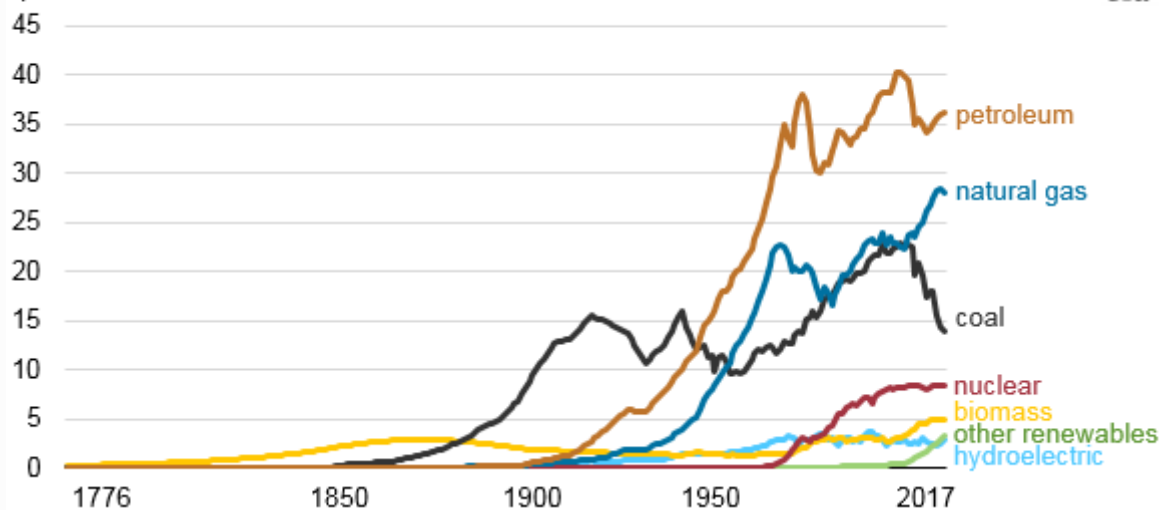
Source: Vaclav Smil (2017) and BP Statistical Review of World Energy

OurWorldInData.org/energy • CC BY

Energy consumption in the United States (1776-2017)

quadrillion British thermal units

eia



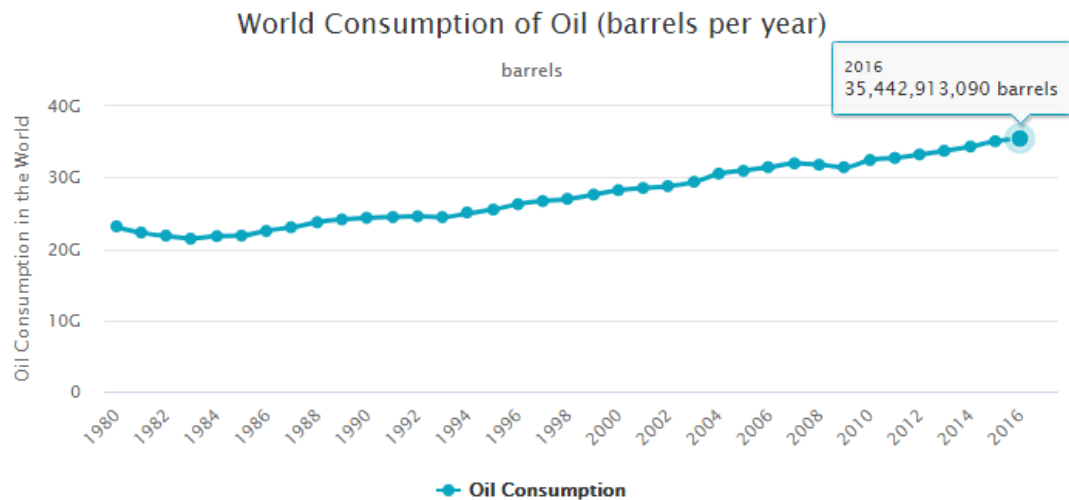
Oil left in the world:
1,480,673,351,701

Summary Table

Oil Reserves	1,650,585,140,000	barrels
Oil Consumption	35,442,913,090	barrels per year
	97,103,871	barrels per day
Reserves/Consumption	47	(years left)

(Data shown in the table is for 2016. Counter shows current estimate.)

History of Global Oil Consumption



Energy, EROI and quality of life ☆

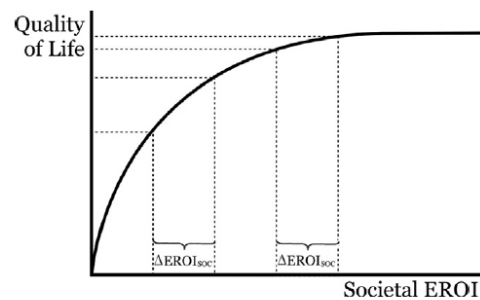
Jessica G. Lambert*, Charles A.S. Hall, Stephen Balogh, Ajay Gupta, Michelle Arnold

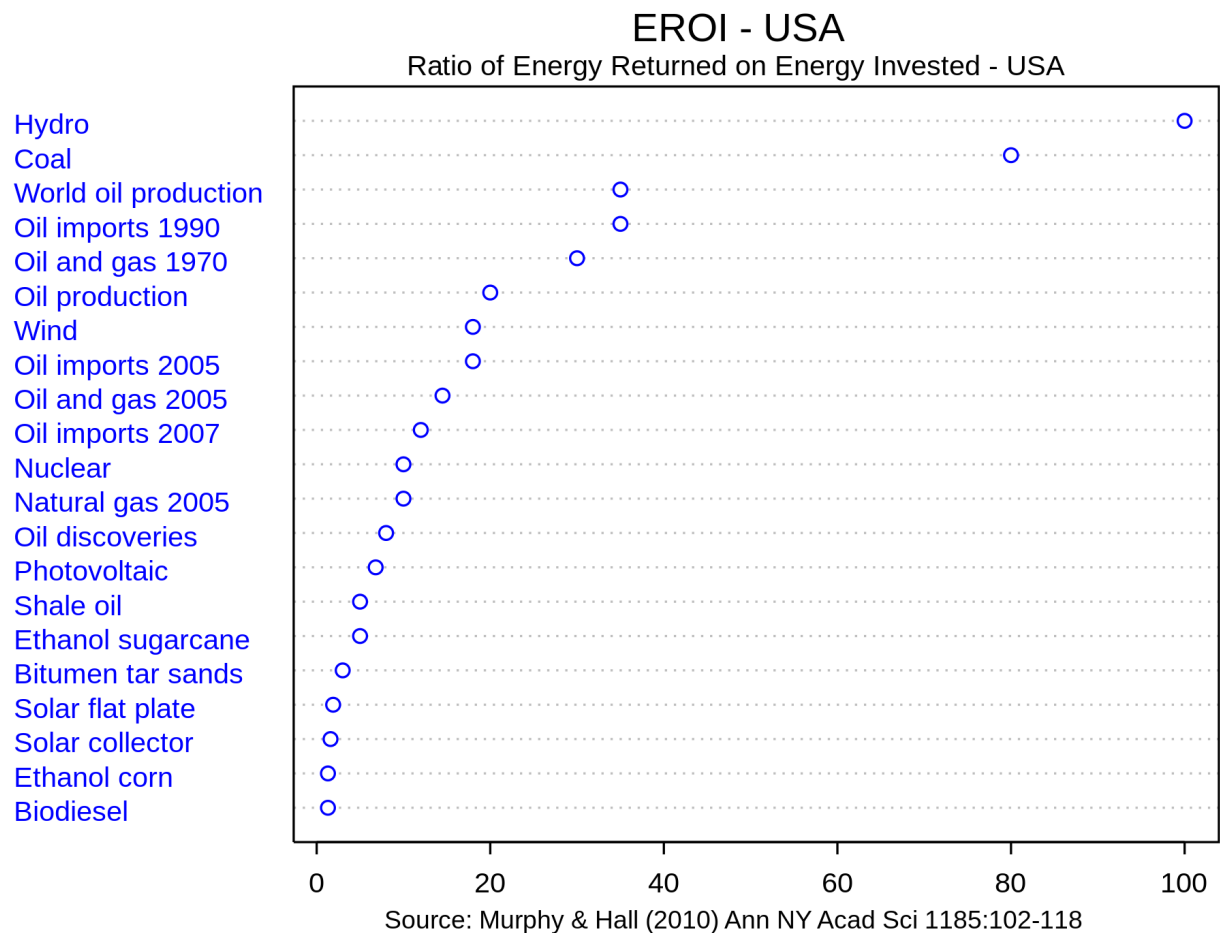
Next Generation Energy Initiative, Inc., PO Box. 292, Marcellus, NY 13108, USA

HIGHLIGHTS

- Large quantities of high quality energy appears to contribute to social well-being.
- LEI examines the quantity, efficiency and distribution of energy within the system.
- $EROI_{soc}$ of $< 25:1$, < 100 GJ/capita and $LEI < 0.2$ point to poor/moderate quality of life.
- A threshold of well-being is: $EROI_{soc}$ of 20–30:1, 100–200 GJ/capita and LEI 0.2–0.4.
- Improvement in well-being levels off at: $EROI_{soc} > 30:1$, > 200 GJ/capita and $LEI > 0.4$.

GRAPHICAL ABSTRACT





highly desirable traits of non-renewable fossil fuels. Specifically, renewable energy sources:

- are not sufficiently “energy dense”,
- tend to be intermittent,
- lack transportability,
- most have relatively low EROI values (especially when corrections are made for intermittency), and
- currently, lack the infrastructure that is required to meet current societal demands.



Doomsday clock: minutes to midnight, 1947-2020

