

A serene landscape with misty mountains and a calm lake reflecting the scene. The mountains are layered, creating a sense of depth and atmosphere. The water is still, acting as a perfect mirror for the surrounding environment. The overall color palette is soft and natural, dominated by greens, blues, and greys.

# Humanity's Next Epochal Event

Where We've Been and Where We Can Go

# Key Events in the Human Journey

- First Epochal Event: Controlling Fire/Stone Tools
- Second Epochal Event: Conquering Earth
- Third Epochal Event: Domestication Revolution
- Fourth Epochal Event: Industrial Revolution

# First Epochal Event – Controlling Fire/Stone Tools

- ~ 2.5-to-60,000 years ago
- Safety from predators
- Allowed human line to leave trees
- Cooked foods and related anatomical changes
- Further brain development
- Campfires became social nexus
- Evolution of *Homo sapiens*

# Second Epochal Event – Conquering Earth

- ~ 60–to-10 thousand years ago
- Mastery of language allowed way to communicate ideas and information
- Led to quicker cultural and technological advances
- Allowed behaviorally modern humans to leave Africa and conquer Earth
  - All other human species driven to extinction
  - All easily killed large animals driven to extinction
- Fire and megafauna extinctions transformed biomes

## Third Epochal Event – Domestication Revolution

- ~ 10 thousand years ago
- Growing crops and animals for food
- Land could support many more people, and people became sedentary
- Sedentary populations led to civilization
- 80 to 90+% of population involved in agriculture
- Women's status declined with appearance of civilization

# Fourth Epochal Event – Industrial Revolution

- Early 1700s to Present
- Wood → Coal → Oil
- Many technological advances (steam engine, electricity, etc.)
- Fewer people Involved in agriculture
- Machines made physical labor less valuable and led to end of slavery and liberation of women
- Demographic Transition

# Current Hydrocarbon World Today

- Tremendous energy available for electricity and fuel
- Easily transported
- Able to monetize
- Environmentally destructive
- Oil is Earth's greatest geopolitical prize, and a century of warfare has revolved around it, and Peak Oil has been reached
- Ultimately finite

# What is Energy?

- Motion derived from the utilization of physical or chemical resources especially to provide food, light, and heat or to work machines
- Many different forms (chemical, thermal, electrical, etc.)
- Usually measured in calories, joules, or kilowatt hours (kWh)



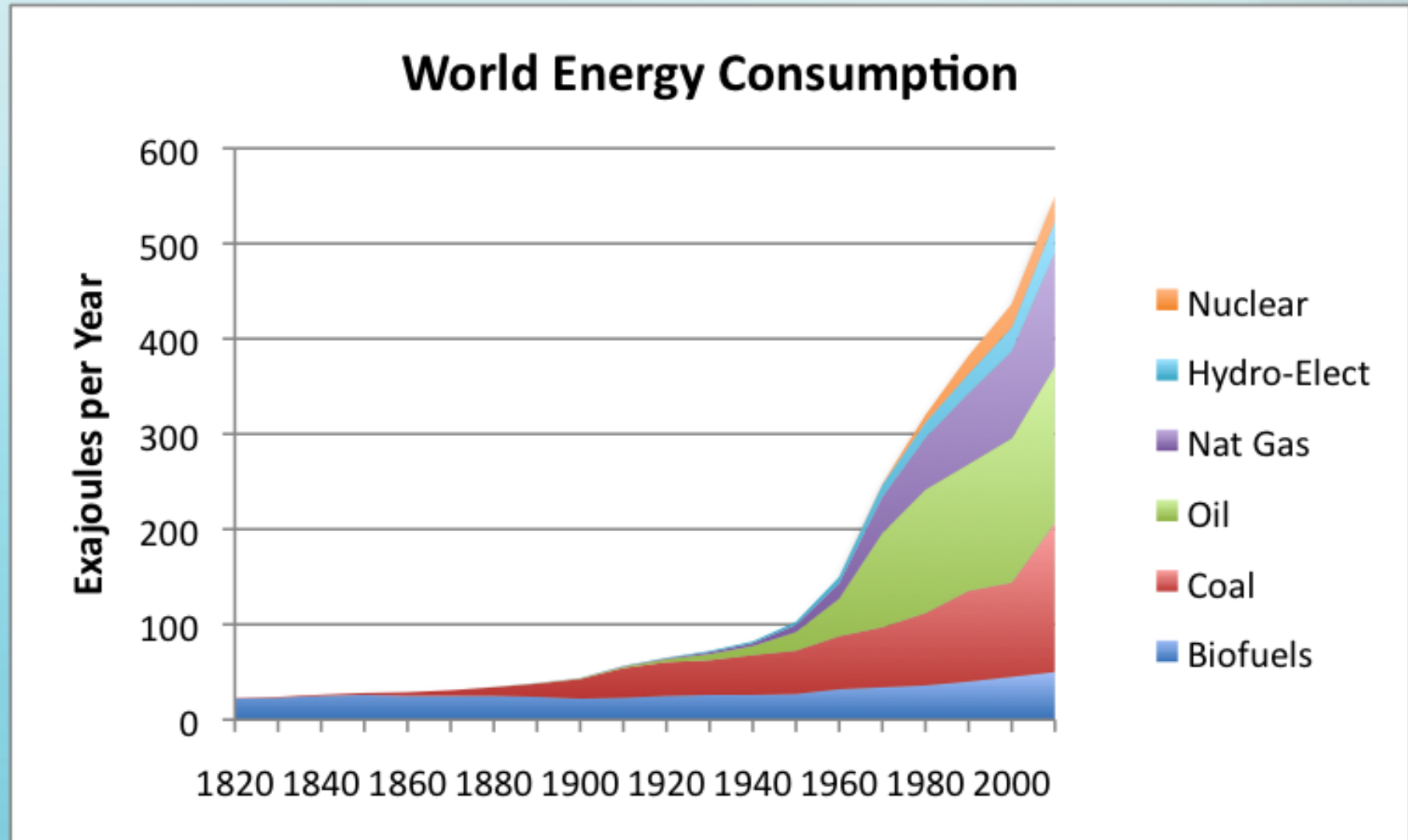
# Main Energy Sources Today

- Oil
- Coal
- Natural Gas
- Uranium
- Hydroelectric

# Key Energy Concepts

- World energy sources and consumption
- Energy surplus
- Energy equivalent humans (AKA energy slaves)
- Energy return on investment

# World Energy Consumption



# Energy Surplus

- Ultimate measure of species or civilization viability
- Also represents “margin of error” in handling life’s vagaries
- Discretionary income may be the closest financial concept

# Energy Equivalent Humans (AKA Energy Slaves)

- One barrel of oil generates more than 10 man-years of work
- Average American uses 80 times the energy provided by their diet (i.e. 80 Slaves)
- In 2013, energy from fossil fuels provided enough energy to power several hundred billion energy slaves
- Provides many other benefits that humans cannot perform (e.g. high-speed travel, electronic equipment, plastics, etc.)

# Energy ROI

- Key concept to describe the value of energy on the economy
- Higher the EROI of energy sources the more advanced a civilization becomes
- EROI of 5 to 10 needed to run a current modern civilization
- High-EROI energy resources are being rapidly depleted

# Energy ROI Examples

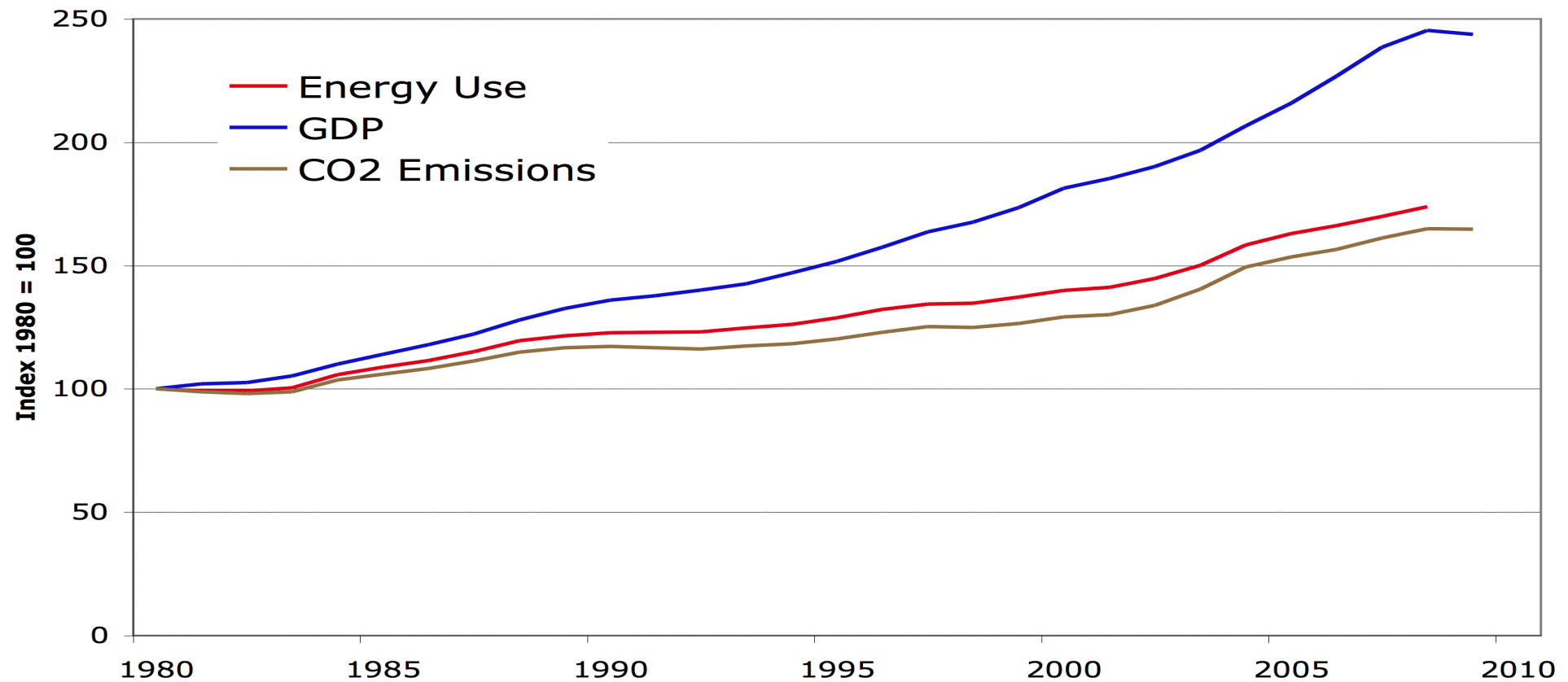
## Source

## EROI

- |                       |     |
|-----------------------|-----|
| • Oil                 | 20  |
| • Natural Gas         | 15  |
| • Coal                | 85  |
| • Nuclear             | 15  |
| • Wind                | 18  |
| • Solar               | 2-8 |
| • Geothermal          | 4   |
| • Shale Oil/Tar Sands | 2-4 |
| • Biodiesel           | 1   |

# Energy and Economics

## World Energy, GDP, and CO2: 1980-2009





# Energy and Economics – Japan's Energy/GDP relationship



# Energy and Earth

- Climate change
- Anoxic and acidic ocean
- Hydrogen sulfide event
- Possible sixth mass extinction

# Alternative Sources of Energy

## Conventional

- Solar
- Wind
- Geothermal
- Hydraulic Fracking

## Exotic

- Cold Fusion
- Over-unity electromagnetic motors
- Magnet motors
- Gravity motors
- Vortex technologies
- Much more

# Humanity's Fifth Epochal Event – Breakthrough Energy

- Era of true abundance
- Environmental remediation
- Peace

# Humanity's Fifth Epochal Event – Immediate Changes

- End of economic desperation
- No wars over resources
- Elimination of air pollution
- Lowering of CO2 levels
- Abundance of pure water
- Restoration of the environment

# Humanity's Fifth Epochal Event – Long Term Changes

- Space travel
- Asteroid mining
- Cleaning up our mess in space
- Domesticating our solar system
- New paradigms in chemistry

# Humanity's Fifth Epochal Event – Possible Threats

- Newer and better weapons
- Chaotic transition
- Confrontation with the hierarchical system

# Current Situation – Perfect Storm Brewing

- Tension over remaining non-renewable resources
- Destruction of the environment
- Austerity versus abundance
- Secrecy versus openness
- Control versus freedom



# How about something on getting there?

- Thousands of attempts to bring Free Energy (AKA New Energy) to public (many of which reached technical viability), but always defeated by:
  - 1. Internal weaknesses in effort and lack of public support
  - 2. Organized suppression by energy interests at local, state, national, and global levels.
- Effort being mounted to overcome those obstacles will focus on:
  - 1. Training comprehensive thinkers who focus on energy issue (goal: 5,000-7,000 people); their combined awareness may be sufficient to catalyze release of energy and related technologies that have already been developed but are sequestered by global elite;
  - 2. If that effort is not sufficient, they will help educate people who can assist effort, largely with their awareness, but also technically, financially (goal 100,000 people, but no large financial burdens for any member), and in other professional capacities;
  - 3. When enough are amassed, the technical effort will be:
    - Open source and transparent
    - Non-profit and volunteer
    - The effort's goal is developing production-ready prototypes to give to world

# What Will We Chose?

- Utopia
- Oblivion