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 $\rightarrow$ Coal $\rightarrow$ 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

![World Energy Consumption Graph](graph.png)

- **Exajoules per Year**
- **Years:** 1820, 1840, 1860, 1880, 1900, 1920, 1940, 1960, 1980, 2000

- **Fuel Types:**
  - Nuclear
  - Hydro-Elect
  - Nat Gas
  - Oil
  - Coal
  - Biofuels
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

<table>
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<th>Source</th>
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Energy and Economics


- Energy Use
- GDP
- CO2 Emissions

Index 1980 = 100

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