



AMERICAN
ENERGY
SOCIETY



2019 Energy Person of the Year...

The Climate Warriors

The spirit of resistance ... is so valuable on certain occasions, that I wish it to be always kept alive. It will often be exercised when wrong, but better so than not to be exercised at all. I like a little rebellion now and then. --Thomas Jefferson

Every revolution has a defining generation that exerts greater influence over the direction of change than its contemporaries. Both gifted and flawed, an older generation of leaders fostered the American Revolution of 1776 and the 19th century Industrial Revolution, while passionate young people led the first religious Great Awakening in the 17th century and the counter-cultural revolution of the 1960s.

Energy is undergoing an epochal transformation, and at various times we are all its revolutionaries. This revolution is much like others, where different generations do not always share common objectives. The first revolutionaries, like Richard Swanson, Jigar Shah, Lynn Jurich, Emily Kirsch, and Michael Skelly, forged new



paths, but the scope of their vision was often focused too narrowly on renewable energy -- safer sources, but incapable of generating sufficient amounts of power. The shale revolutionaries followed, like George Mitchell, Aubrey McClendon, Harold Hamm, Charif Souki, and they successfully applied hydraulic fracturing techniques to achieve an abundance of affordable energy that wasn't entirely safe.

These two revolutionary generations never found common ground.

In 2019, the energy revolution saw the rise of a new generation of Climate Warriors. First, Alexandria Ocasio-Cortez challenged Congress. Then came younger impatient revolutionaries: Greta Thunberg ("I don't want you to be hopeful"); the students who blocked Congress; those in [Chile](#) who fire-bombed Enel utility offices to protest rising Soukis electricity prices; young onion protesters in [India](#); the 4+ million [global](#) participants in the global climate strike; [Little Miss Flint](#) (aka Mari Copeny - 12 years old, 115K Twitter followers); and [others](#), like Marlow Baines, Isha Clarke and Tokata Iron Eyes (all seasoned activists at the age of 16-years-old) who call for energy justice.

To those who reject the Climate Warriors -- ignore them at your peril. These young revolutionaries of 2019 use TikTok [videos](#) as a "call to action," they organize global Climate Strikes, they consider themselves "woke," and their catchphrase "OK-boomer" targets their greatest foe - the Greatest Generation. They don't care if they have the support of Jane Fonda or Bernie Sanders.

To the Climate Warriors -- *learn from history*. Most revolutions end in chaos and infighting, never fully achieving their ultimate vision. History has witnessed this pattern many times before with movements that:

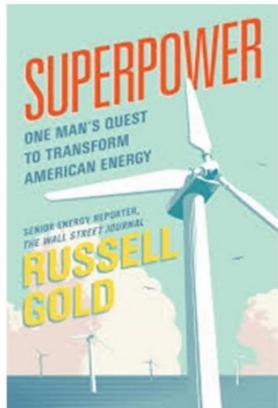
- act dismissive and condescending
- are self-interested and reject alternative concerns
- refuse to collaborate or cooperate
- exhibit extremism that offends and isolates.

Perhaps in 2020, the Climate Warriors and the fossil fuel industry will find common cause and together lead a more successful energy revolution. More realistically, however, America's electoral calendar and the propensity of the public to fail to see through the media's tendency to throw fuel on the fire will likely hinder the cooperation between competing revolutionary factions that is so desperately needed.

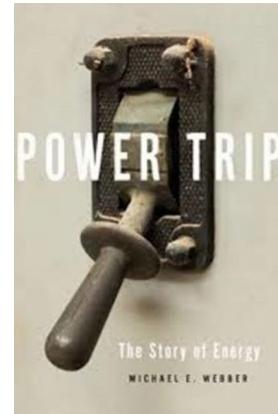
2019 Energy Book of the Year

(Requirement: "energy" as a primary or secondary theme)

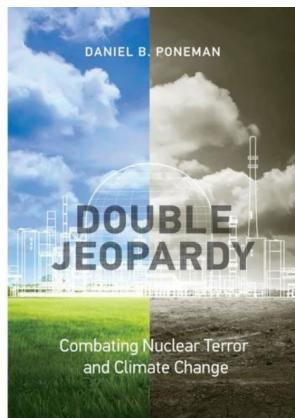
The nominees ...



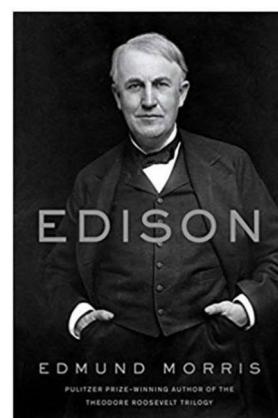
[Superpower:](#)
[One Man's Quest to](#)
[Transform American Energy](#)
by Russell Gold



[Power Trip:](#)
[The Story of Energy](#)
by Michael Weber



[Double Jeopardy:](#)
[Combating Nuclear Terror](#)
[and Climate Change](#)
by Dan Poneman

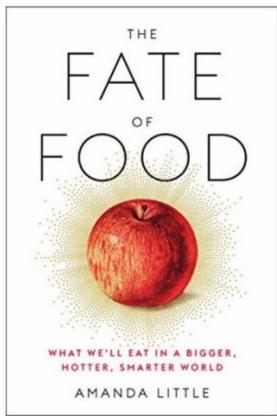


[Edison](#)
by Edmund Morris

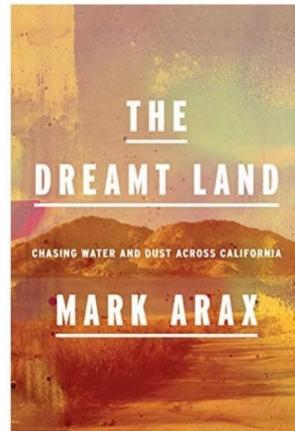
Visit the AES website to see the 2019 Best Book about energy.

2019 Sustainability Book of the Year

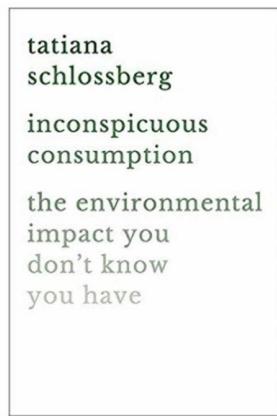
The nominees ...



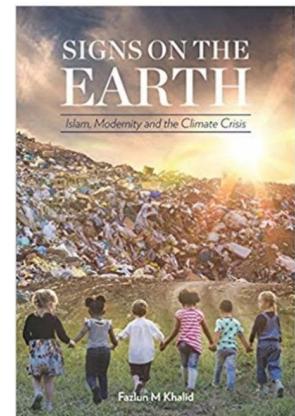
[The Fate of Food](#)
by Amanda Little



[The Dreamt Land:](#)
[Chasing Water and Dust Across California](#)
by Mark Arax



[Inconspicuous Consumption:](#)
[The Environmental Impacts](#)
[You Don't Know You Have](#)
by Tatiana Schlossberg



[Signs on the Earth:](#)
[Islam, Modernity, and the Climate Crisis](#)
by Fazlun Khalid

Visit the AES website to see the 2019 Best Book about sustainability.

2019 Magazine Article of the Year

(Criteria: Published in Energy Today.)

The nominees ...



- [Gone](#)
- [Klaus Lackner's Once Wacky Idea](#)
- [Why Science Needs the Humanities to Solve Climate Change](#)
- [Natural Gas: The Real Energy Revolution](#)
- [How the Ukraine Became a Test Bed for Cyberweaponry](#)

Visit the AES website to see the 2019 Best Magazine Article.

2019 Hollywood Movie

(Requirement: "energy" or "environment" as a primary or secondary theme)

The nominees ...

- [Arctic](#). An Icelandic survival drama ... a man is stranded in the Arctic after an airplane crash; it's what he does and keeps doing that defines him.
- [Ash Is the Purest White](#). As much a story of China rebuilding itself as it is a story about one woman doing the same.
- [Avengers - Endgame](#). Thanos has disintegrated half of all life in the universe. The Avengers use Space Stones to rebuild the universe and "Snap" the power to reverse past destruction. For those wondering, the film does not explain what is generating all that power, nor the emission levels of that power.
- [Birds of Passage](#). Part ethnographic documentary, part The Godfather drug-crime drama, the film answers: how does a group of people become avid materialists? (subtitled)
- [Domino](#). Two cops are on the hunt for a Libyan terrorist, but they don't know that the terrorist is being Thanes funded by a nationalized oil company and the U.S. CIA. (Editor's warning: despite being formulaic, this movie doesn't hold together very well.)
- [Crawl](#). A horror film that is as much an ode to the power of Mother Nature as it is a story about the bonds between a father and daughter.
- [Official Secrets](#). US and British intelligence agents try to dig up dirt on members of the U.N. Security Council to help "persuade" them to authorize the invasion of Iraq.



Visit the AES website to see the 2019 Best Movie about energy.

2019 Documentary of the Year

(Requirement: "energy" or "environment" as a primary or secondary theme)

The nominees ...

- [American Factory](#). An exploration of the worst of communism and capitalism.
- [Cooked: Survival by Zip Code](#). We're willing to see "natural" disasters; unnatural ones we're not.
- [Epic Yellowstone](#). A film by the Smithsonian, National Museum of Natural History.
- [Hostile Planet](#). A six-part series by National Geographic, even the images in the 1.5-minute [YouTube trailer](#) are spectacular.
- [The Hottest August](#). A portrait of ordinary people thinking about climate change.
- [Thirst for Power](#). A documentary on water-energy conflicts.



Visit the AES website to see the 2019 Best Documentary about energy.

Other awards ...

Best peer-reviewed paper

(Award criteria = academic + popular audience)

Winner: [Potential of CO2-EOR for Near-Term Decarbonization](#)

A survey and analysis of negative emission technologies.

Best Resource for Research

Winner: [US Electric System Operating Data](#)

Beta version, all data in real time.

Best Thought-Leadership Report

Winner: [Clearing the Air, by Energy Futures Initiative.](#)

The report outlines a 10-year RD&D initiative to bring to commercial readiness innovative CDR technologies at gigaton scale.

Best Energy Blog

Winner: [Kirk Coburn](#)

Energy venture capitalist, entrepreneur, surfer, and athlete.

Bonus Award

Visit the [American Energy Society website](#) for the "Most Important Energy Story of 2019" ... in 4 slides

In one week ...
the American Energy Society will announce ...

2019 Energy Writer of the Year

The premier literary award for energy.

Signals & Noise

An end-of-year favorite, a few AES expert members were asked to identify an overlooked energy development ("signal") and an over-hyped topic ("noise").

[Catherine Wolfram](#), Professor of Business Administration at the Haas School of Business, University of California, Berkeley

- Signal: Electricity services for urban, peri-urban and industrial customers in emerging markets
- Noise: Rural electrification

[Kerry Emanuel](#), Professor of Atmospheric Science at MIT, author of [What We Know about Climate Change](#)

- Signal: Nuclear energy
- Noise: Renewables

[James Stafford](#), President OilPrice.com:

- Signal: The slowdown (declining output) in the Permian
- Noise: Unconventional shale revolution slowing down.

[Melanie Kenderdine](#), Principal at Energy Futures Initiative

- Signal: Coalition building in support of energy innovations (e.g.: [Green Real Deal](#))
- Noise: Policymakers arguing over the past at the expense of the present

Amanda Little, author of [The Fate of Food](#), and winner of the AES 2019 Sustainability Book of the Year.

- Signal: Animal-free meats.
- Noise: Carbon farming (Farmers can't measure their soil carbon content, which means they can't be properly incentivized. Let's figure that out, stat!)

[Richard Olliver](#), CEO of Aplethora

- Signal: Waste products converted into transportation fuels or chemicals (WTE)
- Noise: Recycling plastics

[Stephen Bolotin](#), Strategy Consultant, Nexight Group

- Signal: Between 2010 and 2018, the cost of solar PV fell 77% and the cost of onshore wind fell 35%; costs for onshore wind are now at the lower end of the fossil fuel cost range
- Noise: Green New Deal

Jo Sletbak, Consul General of Norway, [San Francisco](#)

- Signal: International accords that support concrete action -- we have no Planet B
 - Noise: Individual and isolated attempts at decarbonization
-

Bad Journalism (or Lazy Reader) Awards

Which version of the following story was cited and clicked the most (according to Google analytics - **"The economic cost of the PG&E fires?"**

- A. \$10 billion ("reaching unprecedented...") - [CBS Evening News](#)
- B. \$2 billion ("could cost more than...") - [CNBC](#)
- C. \$1 billion ("a cool billion...") - [San Francisco Chronicle](#)
- D. \$65 million to \$2.5 billion (quite a range!) - [The Wall Street Journal](#)

Which version of the following story was cited and clicked the most (according to Google analytics - **"The economic cost of cyber-crimes?"**

- A. \$6 trillion annually ("up to...") - [Cybersecurity Ventures](#)
- B. \$2 trillion ("projected to be...") - [Forbes](#)
- C. \$600 billion ("may have...") - [CNBC](#)
- D. \$445 billion ("as much as ...") - [Center for Strategic & International Studies](#)

Answers: In both of the above cases, the story that received the most clicks was also the story with the highest estimated economic costs.

Editor's note: Obvious pandering by the media - and yet readers lapped it up.

Winner of the headline hyperbole award: BNEF

- Global Renewables Investment to Hit \$13.3 Trillion By 2050
- \$10 Trillion Going Toward Solar, Wind and Batteries

Editor's note: Trillions. *TRILLIONS.* Exaggerated forecasting *NOT* news.

Some stories didn't need to be reported ...

- "People who live in North Dakota, Montana, and Wyoming consume more electricity to heat their homes per capita than people who live in New Mexico or Hawaii." - Electric Choice.
- "Floridians spend 9 times more on cooling costs than Maine." - Energy Collective.

Editor's note: Duh.

Some stories deserved more critical attention ...

2nd place - At Energy Week, New York City, the media celebrated presentations by representatives from India, China, Pakistan, Bangladesh and Kenya who spoke on a featured panel about the progress of renewable energy in their respective countries; however, all five countries increased coal-fired power generation relative to renewable energy generation.

1st place - [China Set To Become The World's Renewable Energy Superpower](#); however, 300 gigawatts of coal-fired generating capacity is under construction in China – more than all the coal-fired plants operating in the U.S.

Editor's note: This one is on the media; otherwise, how are readers to know...?

Contacts

[The American Energy Society](#) website

American Energy Society [LinkedIn Group](#)

American Energy Society introductory [video](#)

[Contact us](#) with comments about the Society or this issue of Energy Matters.

Note: Eric J. Vettel, Ph.D., President and Editor of American Energy Society, is available for speaking engagements. Please [contact us](#) with questions or to schedule an event.

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