

Energy and Humankind

The Past, Present and Future of our light, heat and power

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| Course # | 20SEH |
| Format: | Seminar |
| Moderator: | Rich Parrish |
| Date and Time: | Monday, 10:00- Noon 9 weeks, starting Mar. 2, 2020 |
| Location: | Smith College Lilly Hall, room 308 |
| Maximum number of participants | 12 |
| Auditors accepted: | Yes, up to 2 |

Purpose: The purpose of this seminar is to study the history and influences of the many energy sources that have shaped our world and civilization to date, and gain insight to and predict those that will shape the world of tomorrow.

Description: Since the discovery of fire, humans have utilized various fuels and forces to obtain light, heat and power. The succession of wood, animals, water, wax, whales, peat, coal, oil and gas; to hydro, nuclear, geothermal, solar, and wind has enabled the quality of life we know today. The seminar will examine and compare the many energy sources used by humans through time, why those sources came into or out of use, their efficiencies, supply, costs and influences on civilization. We will then examine how these sources and others yet-to-be-discovered will shape the future state of humans and the planet. The group will try to predict: are we at the end of the Age of Fossil Fuels? What sources can be used, should be used or will be used in the future? This is a study of energy sources, not global warming, so climate change will be addressed as just one of many aspects.

Role of participants: Each participant will study and present a short (maximum 20 minute) summary of an historic energy source from an agreed list, and later, a second summary of a current renewable or experimental energy source. The moderator will provide graphs of historic use and future projections to guide discussion.

Resources: *ENERGY: A Human History*, by Richard Rhodes, 1st Edition, 2018 Simon and Schuster, \$30
Online sources: BP 2019 Energy Outlook, EIA Energy Outlook and other internet sources that predict the future sources of energy.

About the Moderator: Rich worked as an exploration geologist for a major oil company. He has been an LIR member since 2015, has participated in several seminars and moderated a previous seminar.