

# Vocabulary List for “ Human History of Energy ”



RIPPLE ENGLISH

1	struggle	苦闘する もがく	英英	make forceful or violent efforts to get free of restraint or constriction
			例文	<i>Human history can be seen as a series of struggle over the acquisition and utilization of energy.</i>
2	acquisition	獲得	英英	buying or obtaining an asset or object
			例文	<i>Human history can be seen as a series of struggle over the acquisition and utilization of energy.</i>
3	utilization	利用 活用	英英	the action of making practical and effective use of something
			例文	<i>Human history can be seen as a series of struggle over the acquisition and utilization of energy.</i>
4	prehistoric	有史以前の	英英	relating to or denoting the period before written records
			例文	<i>Even from prehistoric times, humans have been unable to survive without the addition of external energy.</i>
5	external	外部の 外側の	英英	belonging to or forming the outer surface or structure of something
			例文	<i>Even from prehistoric times, humans have been unable to survive without the addition of external energy.</i>
6	metabolic	代謝の	英英	relating to or deriving from the metabolism of a living organism
			例文	<i>Homo sapiens have exceptionally large brains, and it consumes 20 to 25 percent of all metabolic energy.</i>
7	harness	動力化する 利用する	英英	control and make use of (natural resources), especially to produce energy
			例文	<i>The solution was to harness the energy of fire; namely, cooking.</i>
8	namely	すなわち 正確には	英英	that is to say; to be specific
			例文	<i>The solution was to harness the energy of fire; namely, cooking.</i>
9	offset	相殺する 帳消しする	英英	counteract (something) by having an opposing force or effect
			例文	<i>The high energy need of the brain was partly offset by a reduced energy need in digestive systems.</i>
10	externalize	外部化する	英英	give external existence or form to
			例文	<i>Our huge brain was possible by externalizing the energy required for food digestion.</i>
11	abundantly	豊富に	英英	in large quantities; plentifully
			例文	<i>How has humanity discovered various ways to utilize energy more abundantly and efficiently?</i>
12	photosynthesis	光合成	英英	the process by which green plants use sunlight to synthesize foods from carbon dioxide and water
			例文	<i>Only about 0.05 percent of incoming solar energy is transformed by photosynthesis into chemical energy.</i>
13	hunter-gatherer	狩猟採集民	英英	a member of a nomadic people who live chiefly by hunting and fishing, and harvesting wild food.
			例文	<i>Before agriculture, all people had been living as hunter-gatherers.</i>
14	fraction	一部 断片	英英	a small or tiny part, amount, or proportion of something
			例文	<i>Whether in rainforests or savannah, only a fraction of the entire biomass is edible for us.</i>
15	biomass	生物量	英英	the total mass of organisms in a given area or volume
			例文	<i>Whether in rainforests or savannah, only a fraction of the entire biomass is edible for us.</i>
16	edible	食用可能な	英英	fit or suitable to be eaten
			例文	<i>Whether in rainforests or savannah, only a fraction of the entire biomass is edible for us.</i>
17	inherent	内在する 固有の	英英	existing in something as a permanent, essential, or characteristic attribute
			例文	<i>There was an inherent limitation in the amount of accessible calories.</i>
18	sporadically	断片的に	英英	occasionally or at irregular intervals
			例文	<i>From 10,000 B.C. onwards, farming began sporadically around the world.</i>
19	exclusive	独占的な 排他的な	英英	restricted or limited to the person, group, or area concerned
			例文	<i>Agriculture means the exclusive use of solar energy in a specific piece of land.</i>
20	expel	追い出す	英英	force (someone) to leave a place, especially a country
			例文	<i>We cultivate a single species and constantly expel weeds and vermin.</i>

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21	vermin	害獣 害虫	英英	wild animals that are believed to be harmful to crops, farm animals, or game, or that carry disease
			例文	We cultivate a single species and constantly expel weeds and vermin.
22	density	密度	英英	the degree of compactness of a substance
			例文	<i>First, agricultural societies could support far higher population densities than hunter-gatherer societies.</i>
23	surplus	余剰 黒字	英英	an amount of something left over when requirements have been met
			例文	<i>Farming began creating an energy surplus.</i>
24	pave	舗装する 道を敷く	英英	cover (a piece of ground) with concrete, asphalt, stones, or bricks; lay paving over
			例文	<i>The energy surplus eventually paved the way to highly complex and advanced hierarchical societies.</i>
25	hierarchical	階層的な 階級制度の	英英	of the nature of a hierarchy; arranged in order of rank
			例文	<i>The energy surplus eventually paved the way to highly complex and advanced hierarchical societies.</i>
26	yield	収穫高 産出量	英英	the full amount of an agricultural or industrial product
			例文	<i>By the end of the 19th Century, yields approached a limit.</i>
27	finite	有限の	英英	having limits or bounds
			例文	<i>The yearly amount of energy that photosynthesis can capture from the sun is finite.</i>
28	level off	安定する 横ばいになる	英英	begin to fly horizontally after climbing or diving
			例文	<i>The population reached 30 million in the 18th Century, and almost leveled off during the rest of the Edo period.</i>
29	archipelago	列島	英英	a group of islands
			例文	<i>This is the maximum population capacity that the Japanese Archipelago can sustain.</i>
30	monopolize	独占する 占有する	英英	obtain exclusive possession or control of
			例文	<i>Agriculture enabled humankind to monopolize the solar energy raining on the land.</i>
31	tap into	引き出す 活用する	英英	exploit or draw a supply from
			例文	<i>Today, we are tapping into these ancient reserves of solar power.</i>
32	fertilizer	肥料	英英	a chemical or natural substance added to soil or land to increase its fertility
			例文	<i>We use fossil fuels to feed the expanding population by producing chemical fertilizer.</i>
33	subsidize	補助金を出 す	英英	support (an organization or activity) financially
			例文	<i>They are subsidized by ancient sunlight.</i>
34	mass	かたまり	英英	a large amount of material
			例文	<i>A 40-year-old tree can be viewed as a mass of solar energy accumulated over the past 40 years on the spot.</i>
35	sufficient	十分な	英英	enough; adequate
			例文	<i>Technological development is only possible in societies with sufficient energy surplus.</i>
36	temporary	一時的な 当面の	英英	lasting for only a limited period of time; not permanent
			例文	<i>Forest resources have given us a temporary energy surplus until they are all cut down.</i>
37	reservoir	貯水池 宝庫	英英	a large natural or artificial lake used as a source of water supply
			例文	<i>Progress of human society has been invested by nature's reservoir of past solar energy.</i>
38	weave	織る	英英	form fabric or a fabric item
			例文	<i>Whether it is cultivating farmland or weaving cloth, there has to be an input of kinetic energy.</i>
39	kinetic energy	運動エネル ギー	英英	energy which a body possesses by virtue of being in motion
			例文	<i>Whether it is cultivating farmland or weaving cloth, there has to be an input of kinetic energy.</i>
40	convert	転換する 変換する	英英	cause to change in form, character, or function
			例文	<i>Humans had only one machine capable of converting solar energy into kinetic energy.</i>

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41	steam engine	蒸気機関	英英	an engine that uses the expansion or rapid condensation of steam to generate power
			例文	<i>A steam engine burns some kind of fuel, and use the resulting heat to boil water; producing steam.</i>
42	extract	取り出す 抽出する	英英	obtain (a substance or resource) from something by a special method
			例文	<i>Previously, humans could harness energy only in the same form as it was extracted.</i>
43	grind	挽く 粉碎する	英英	reduce (something) to small particles or powder by crushing it
			例文	<i>Pre-modern societies used water wheels to capture the flow of rivers to grind grain.</i>
44	smelt	精錬する 溶解する	英英	extract (metal) from its ore by a process involving heating and melting
			例文	<i>Pre-modern societies burned firewood to smelt iron.</i>
45	millstone	石臼	英英	each of two circular stones used for grinding grain
			例文	<i>A water wheel turns kinetic energy of water into kinetic energy of millstones.</i>
46	thermal	熱の	英英	relating to heat
			例文	<i>We have discovered a way to extract useful energy from thermal energy.</i>
47	implementation	実行 実装	英英	the process of putting a decision or plan into effect; execution
			例文	<i>The last breakthrough in the history of energy is the implementation of electricity.</i>
48	viable	実現可能な 生存可能な	英英	capable of working successfully; feasible
			例文	<i>After one and a half centuries, electric energy became commercially viable.</i>
49	medieval	中世の	英英	relating to the Middle Ages
			例文	<i>Medieval water wheels could not turn the kinetic energy of water into thermal energy to warm houses.</i>
50	medium	媒体 媒介	英英	the intervening substance
			例文	<i>Electric energy can be the medium of various forms of energy.</i>
51	hydroelectric power station	水力発電所	英英	a facility that generates electricity by harnessing the energy of flowing water to turn turbines
			例文	<i>Today, we can generate electric energy at a hydroelectric power station.</i>
52	transmission	送信 伝達	英英	the action or process of transmitting something, or the state of being transmitted
			例文	<i>Electric power has enabled the long-distance transmission of energy.</i>
53	illuminate	照らす 明るくする	英英	make (something) visible or bright by shining light on it; light up
			例文	<i>Today, energy produced by hydro turbines at the Kurobe Dam illuminates the night in Osaka.</i>
54	versatile	汎用的な 多才な	英英	able to adapt or be adapted to many different functions or activities
			例文	<i>Human history can be seen as the quest for more abundant energy in more useful and versatile forms.</i>
55	ongoing	継続中の	英英	continuing; still in progress
			例文	<i>There are still ongoing challenges such as the depletion of fossil fuels and climate change.</i>
56	depletion	枯渇 消耗	英英	reduction in the number or quantity of something
			例文	<i>There are still ongoing challenges such as the depletion of fossil fuels and climate change.</i>
57	unfold	広がる 展開する	英英	be revealed or disclosed
			例文	<i>How will the quest for energy unfold in the 21st Century?</i>