

brought to you by research group *Philosophy of Engineering, Technology Assessment, and Science (PhilETAS)* at ITAS-KIT

## **Normative Energy Ethics**

Lecture Series

What is Energy?

Ricardo Lopes Coelho, Faculdade de Ciências, Universidade de Lisboa, Lisbon, Portugal

July 23, 2024 14.00 CET



**Ricardo Lopes Coelho** 

Energy is the ability to do work, according to some physicists. However, other physicists have criticized this definition. Following the principle of conservation of energy, some physicists claim that energy can neither be created nor destroyed but can only be transformed. However, other physicists argue that such an entity does not exist. Another set of physicists argues that we do not know what it is. If we do not know what it is, how can it be defined? Under these circumstances, I decided to study the origin and the evolution of the problem.

Indeed, there has been much research on the history of energy. Historians have found discoverers of energy. However, the discoverers did not speak about energy. Consequently, what it is said about energy in their texts depends on the concept of energy one has.

However, if we do not have a clear concept of energy, how can we detect energy in those texts? Under these circumstances, it is no wonder that the number of discoverers of energy varies from historian to historian.

Is it truly useful to know what energy is? I will show the usefulness of the answer to this question through two examples. One concerns the history of science, and the other concerns physics. Is the answer useful for the field of Energy Ethics? This is a question for researchers working in this area of scholarship. First, I will answer the question of what energy is.



register here

www.itas.kit.edu/philetas\_nee

contact: energy-ethics@itas.kit.edu

