Oil and Natural Gas (20th century)

The industrial revolution significantly stimulated the technological and social development of the world. The discovery of oil, which occurred in the second half of the 19th century, and subsequently the discovery of natural gas and its introduction into energy systems, further influenced this development. At the beginning of the 20th century, coal, oil, and gas, which we call **fossil fuels**, became the dominant sources of energy for human societies for several reasons, and have retained that role until today. The share of fossil fuels in global energy now exceeds 80% (https://nevara4energy.wordpress.com/2022/10/25/world-energy-needs/?preview=true#jp-carousel-3652).

Fossil fuels, especially oil and gas, have fundamentally transformed energy systems. That transformation was based on two key technologies, (i) the development of **electricity** and (ii) the introduction of the **internal combustion engine**. These technologies still have a dominant importance for all areas of societies, especially for the economy. Electricity is a crucial energy carrier. Without it, the modern world cannot be functional with the existing organization. Internal combustion engines have a similar importance, especially in the field of transport. Those engines have been practically brought to perfection through decades of innovation.

Their mass is relatively small. They are produced in large numbers all over the world. Accordingly, the price per unit of power they provide is low.

The current trend is that vehicles based on this type of engine will soon be replaced by electric ones. We believe that a more detailed study of all aspects of such processes could show that the total dominance of electric transport is not sustainable, and that the use of internal combustion engines will continue, especially through the development of "green" fuels. This will be discussed in a special chapter of this blog. (link is coming soon)

Until **World War II**, technological development was based mainly on the innovations of individual designers or groups, and less on the use of science. However, in the second half of the 20th century (**after World War II**), science entered all areas of life. Scientific knowledge is widely used, especially in the approach to construction solutions, the choice of fuel, the chemical processes that occur during combustion, etc. Thanks to this, the global economy has expanded, the standard of living has continuously risen, the number of people on our planet has increased rapidly, and the need for energy has also increased.