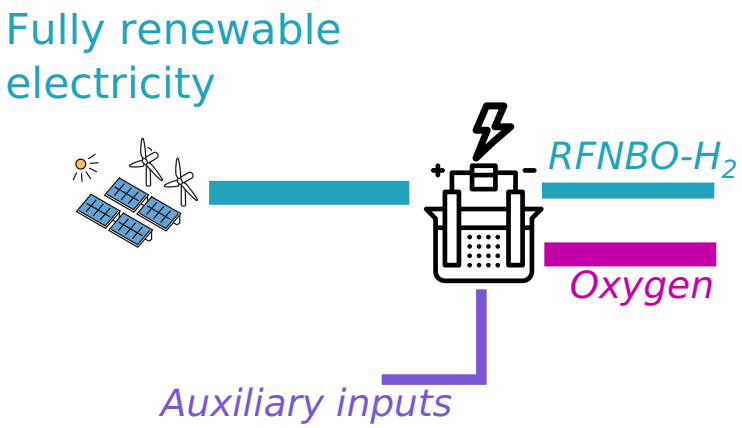
1: Water electrolysis, pure fully renewables

- How to allocate emissions to oxygen
- How to calculate the share of RFNBO with emissions from auxiliaries



Fully renewable electricity is attributed zero GHG emissions. Therefore, the only emissions come from auxiliaries.

Auxiliaries

Auxiliary inputs are all inputs not contributing to the heating value of the RFNBO. In the case of water electrolysis, this might be water supply and treatment, heat and other similar input.

To simplify the example, we grouped all of them together and displayed the impact directly related to the energy in the RFNBO output.

Emissions can be allocated to the co-products by the economic value (according to point 15(f), because oxygen has no energy content).

Assumptions

The main assumption is that the oxygen is valorized (sold) as a product. For electrolysers where the oxygen has no economic value, no emissions can be allocated to it.

Parameter	Symbol	Example value
Efficiency of the electrolyser	\(\eta_{ely}\)	\(60\color{grey}{\%}\)