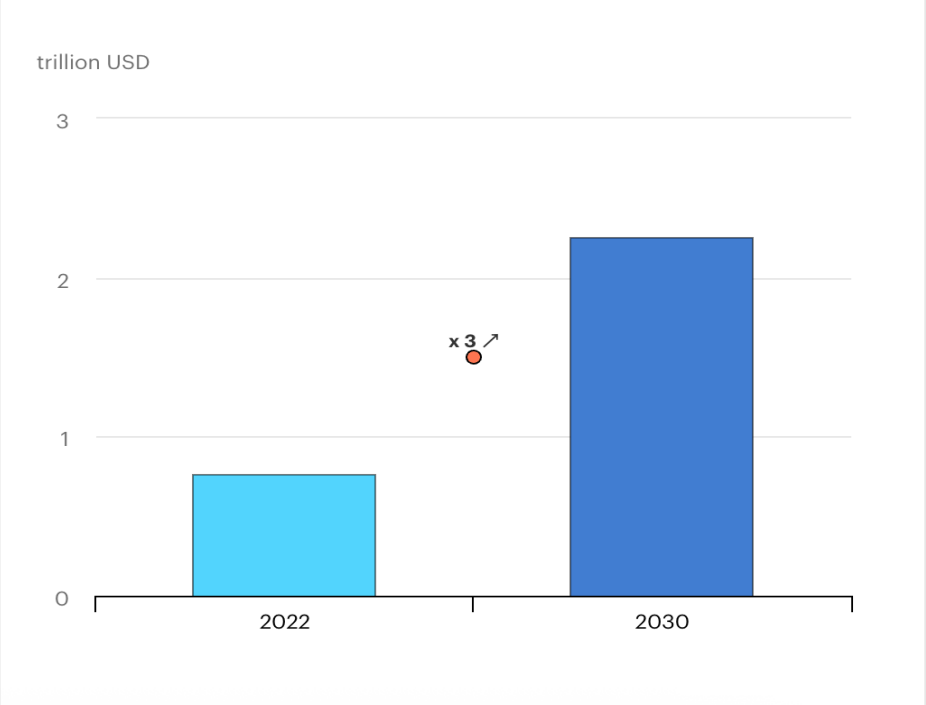
DAY 1

1) Clean Energy Investments in the Emerging market and developing economies in the Net Zero Scenario Emissions by 2022 and 2030.



IEA (2023), World Energy Outlook 2023, IEA, Paris https://www.iea.org/reports/world-energy-outlook-2023, Licence: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A)

What does the graph show?

This bar graph shows the increase in clean energy investment in emerging and developing economies between 2022 and 2030 under the Net Zero Emissions (NZE) scenario. Left bar in 2022 shows 0.75 trillion USD and in 2030 the predicted investment is 2.25 trillion USD.

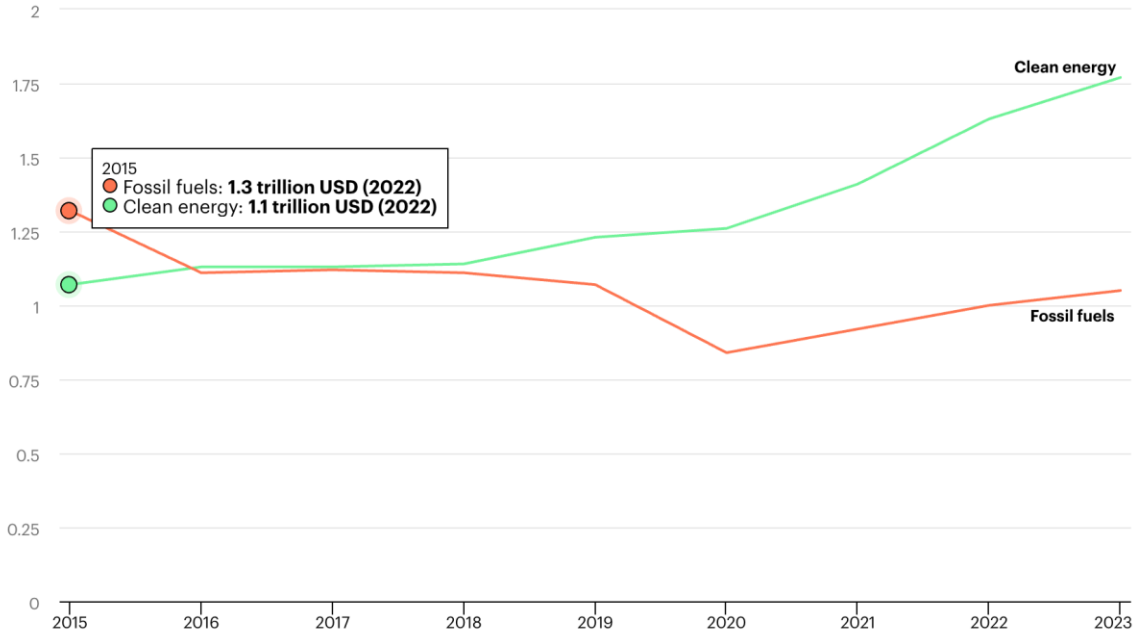
What makes this graph important?

Investment in clean energy needs to triple by 2030 to stay on track for net-zero emissions by 2050. This shows the urgency of scaling up climate finance, especially in lower income countries. Developing countries are among the most vulnerable to climate impacts such as droughts and food insecurity. Without substantial investments, they will not have access to clean energies, deepening inequality.

How does it relate to the project?

The algae-based bioreactor is a part of clean energy and climate mitigation innovation. The rising investment in clean energy suggests growing support to low carbon solutions including this nature-based bioreactor.

2) Global Investment Trends: Clean Energy vs Fossil Fuels (2015–2023)



IEA (2023), World Energy Outlook 2023, IEA, Paris https://www.iea.org/reports/world-energy-outlook-2023, Licence: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A)

What does the graph show?

This line graph shows that in 2015 fossil fuels had a greater investment of 1.3 trillion USD and clean energy had a 1.1 trillion USD investment. From 2016 to 2018 the investment hits a plateau of 1.20 trillion USD. After 2018, a peak increase in investments for clean energy is seen, reaching up to 1.75 trillion USD by 2023. A drasitic drop is visible in fossil fuels hitting about 1.05 trillion USD.

What makes this graph important?

Clean energy investment has surpassed fossil fuel investment. This also shows that the world is committing more to clean energy technologies.

How does it relate to the project?

Since this algae-based bioreactor system is part of the clean energy sector, larger investments are being made by government and industries. They are actively seeking scalable climate solutions. Furthermore, investments to triple by 2030 to stay on track for net-zero, affordable and efficient technologies like the algae-based bioreactor is more relevant than ever. This project could be a low-cost carbon capture technique that could be used in low-income countries.