

Bing

I apologize for the oversight. Let's address your questions based on the information from the article:

1. Earth's Average Surface Temperature in 2023:

- In 2023, Earth's average surface temperature was **2.43°F (1.35°C) above the pre-industrial average** (which refers to the period from 1850 to 1900) .

2. Current Target of Temperature Increase Relative to Pre-Industrial Average:

- The current target, as defined by the **2015 Paris Agreement**, is to limit global warming to **well below 2°C above pre-industrial levels** and to pursue efforts to limit the increase to **1.5°C above pre-industrial levels**. This more ambitious goal recognizes that limiting warming to 1.5°C would significantly reduce the risks and impacts of climate change .

3. Problems if Earth's Climate Breaches the 1.5°C Target:

- Breaching the 1.5°C threshold could lead to critical **tipping points**, affecting ecosystems such as **coral reefs**, which may bleach and die due to prolonged exposure to intolerable heat. Additionally, extreme weather events, water shortages, and threats to biodiversity would escalate .

4. Limit on Wetbulb Temperature:

- The wet-bulb temperature represents the point at which **evaporation and cooling can no longer take place** because the atmosphere is fully saturated with water. When the wet-bulb temperature reaches **35°C**, humans can no longer lose internal body heat and cool themselves effectively .

5. Regions on the Frontline of Deadly Humid Heat:

- If global warming targets are breached, regions such as **The Persian Gulf, South Asia, and North China Plain** are at the forefront of experiencing deadly humid heat .

6. Percentage of Total Energy Consumption from Fossil Fuels:

- The article does not directly mention the current percentage, but it highlights the need to transition away from fossil fuels to achieve climate goals.

7. Net Zero and Timeframe for Limiting Global Warming to 1.5°C:

- **Net zero** refers to balancing the amount of greenhouse gases emitted with an equivalent amount removed from the atmosphere. To have a 50-50 chance of limiting global warming to 1.5°C, humanity needs to reach net zero within the next **decade or two** .

Remember that these answers are based on the information provided in the article, and the situation may evolve as we continue our efforts to combat climate change.