# Statistics on Carbon Majors

#### Australia

#### **BHP**

- Emissions from BHP alone were sufficient to make **50 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only BHP's emission existed, **50 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.
- Including the December 2018 January 2019 heatwave in Australia Santos
  - Emissions from Santos alone were sufficient to make 49 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Santos's emission existed, 49 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
- Including the December 2018 January 2019 heatwave in Australia Woodside Energy
  - Emissions from Woodside Energy alone were sufficient to make 49 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Woodside Energy's emission existed, 49 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
- Including the December 2018 January 2019 heatwave in Australia Whitehaven Coal
  - Emissions from Whitehaven Coal alone were sufficient to make 41 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Whitehaven Coal's emission existed, 41 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
    - Including the December 2018 January 2019 heatwave in Australia

#### Indonesia

- Emissions from Adaro Energy, Bumi Resources, and Pertamina individually were sufficient to make **50 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, **50 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.

## Japan

- Emissions from INPEX alone were sufficient to make 50 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only INPEX's emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July 2010, the May September 2013, May 2015, July 2015, and the June-July 2022 heatwaves in Japan
- Emissions from Taiheiyo Cement alone were sufficient to make 49 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Taiheiyo Cement's emission existed, 49 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July 2010, the May September 2013, May 2015, July 2015, and the June-July 2022 heatwaves in Japan
- Emissions from Mitsubishi Corporation alone were sufficient to make 44 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Mitsubishi Corporation's emission existed, 44 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July 2010, the May September 2013, May 2015, July 2015, and the June-July 2022 heatwaves in Japan

#### **France**

- Emissions from TotalEnergies alone were sufficient to make **50 of the 213** analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only TotalEnergies's emission existed, **50 heat** events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July 2006 and June-July 2019 heatwaves in France.

# Germany

- Emissions from BASF, Heidelberg Materials, and RWE individually were sufficient to make **50 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, **50 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the August 2003 heatwave in Germany

## Italy

- Emissions from Eni alone were sufficient to make 50 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Eni's emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July-August 2003, August 2011, August 2018, and June 2019 heatwaves in Italy.

# **Norway**

- Emissions from Equinor and Petoro both individually were sufficient to make 50 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the May 2022 heatwave in Norway.

### **Poland**

- Emissions from LW Bogdanka, Orlen PGE Group, and Polska Grupa Gornicza individually were sufficient to make at least 48 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, at least 48 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the May-September 2022 heatwave in Poland
- Emissions from Poludniowy Koncern Weglowy alone were sufficient to make 35 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Poludniowy Koncern Weglowy's emission existed, 35 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the May-September 2022 heatwave in Poland

# Spain

- Emissions from Repsol alone were sufficient to make 50 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Repsol's emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the August 2003, July-August 2006 and May-September 2022 heatwaves **that occurred** in Spain

### **Netherlands**

- Emissions from Shell alone were sufficient to make **51 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a
hypothetical world where only Shell's emission existed, **51 heat events** would
still have occurred, highlighting the significant role of their individual
contribution to climate change.

### UK

- Emissions from BP alone were sufficient to make **51 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a
  hypothetical world where only BP's emission existed, **51 heat events** would
  still have occurred, highlighting the significant role of their individual
  contribution to climate change.
- Emissions from Anglo American, British Coal Corporation, and Rio Tinto individually were sufficient to make 50 heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.

### Russia

- Emissions from Gazprom alone were sufficient to make **51 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only Gazprom's emission existed, **51 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.

# **Argentina**

- Emissions from YPF alone were sufficient to make **50 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only YPF's emission existed, **50 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.

### **Brazil**

- Emissions from Petrobras alone were sufficient to make 50 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Petrobras's emission existed, 50 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the February 2010 heatwave that occurred in Brazil.

- Emissions from Vale alone were sufficient to make **38 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a
  hypothetical world where only Vale's emission existed, **38 heat events** would
  still have occurred, highlighting the significant role of their individual
  contribution to climate change.
  - Including the February 2010 heatwave that occurred in Brazil.

### Saudi Arabia

- Emissions from Saudi Aramco alone were sufficient to make 51 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Saudi Aramco's emission existed, 51 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.

### Canada

- Emissions from Canadian Natural Resources, Cenovus Energy, Ovintiv, Suncor Energy, Teck Resources, ARC Resources, and Obsidian Energy individually were sufficient to make at least 49 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, at least 49 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the British Columbia 2021 heatwave that occurred in Canada

#### US

- Emissions from Chevron and ExxonMobil individually were sufficient to make 51 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only their emission existed, 51 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
  - Including the July 2005, July-August 2006, June 2021, and June-July 2023 heatwaves that occurred across the US.

### India

- Emissions from Coal India alone were sufficient to make 51 of the 213 analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Coal India's emission existed, 51 heat events would still have occurred, highlighting the significant role of their individual contribution to climate change.
- Emissions from ONGC India and Singareni Collieries both individually were sufficient to make **50 of the 213 analysed heatwaves** between 2000 and 2023 possible. In other words, in a hypothetical world where only their

- emission existed, **50 heat events** would still have occurred, highlighting the significant role of their individual contribution to climate change.
- Emissions from Adani Enterprises alone were sufficient to make **31 of the 213** analysed heatwaves between 2000 and 2023 possible. In other words, in a hypothetical world where only Adani Enterprises's emission existed, **31 heat** events would still have occurred, highlighting the significant role of their individual contribution to climate change.