"Net Zero" as Defined and Interpreted by Fossil Fuel and Renewable Energy Companies

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Background

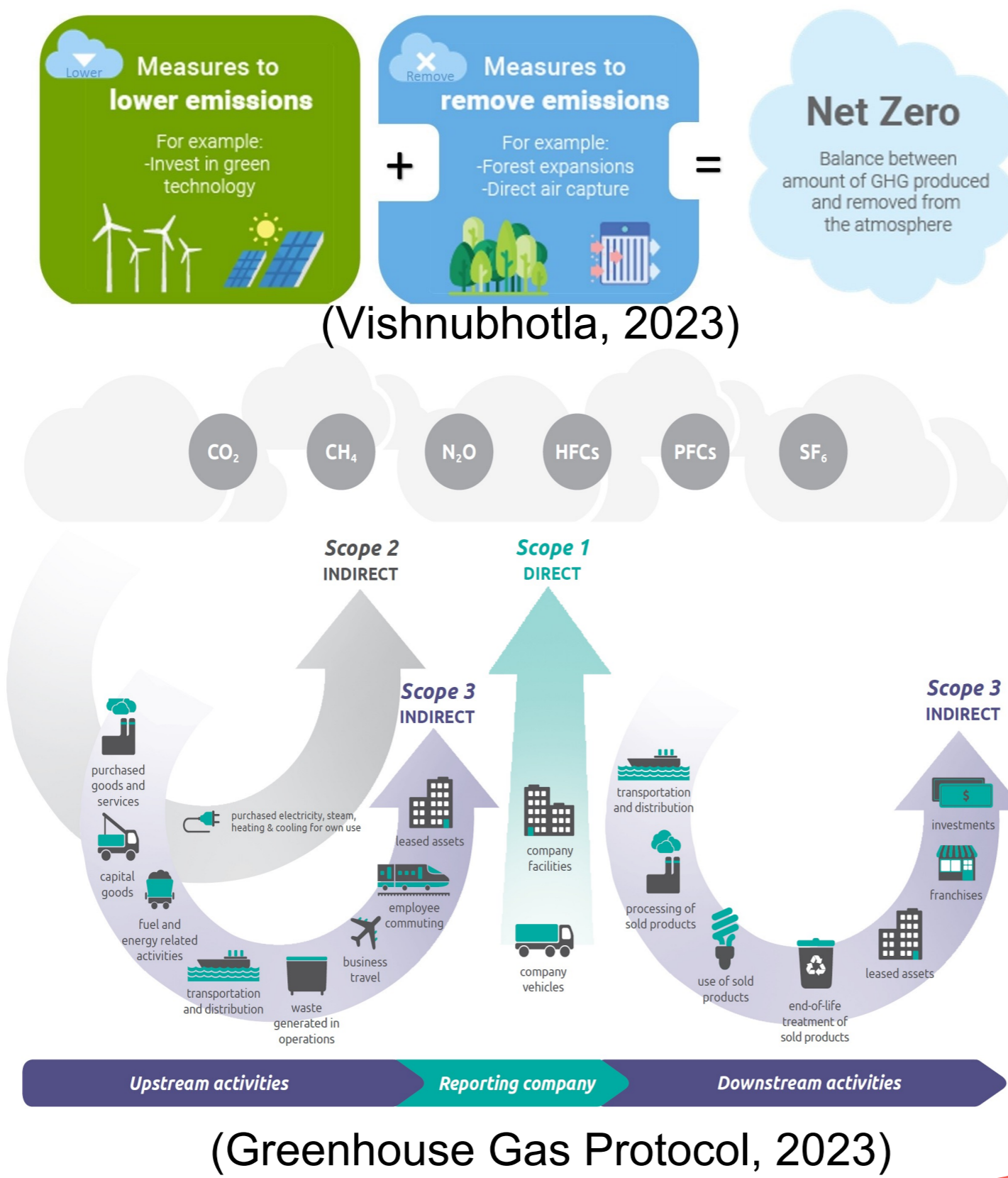"The concept of Net Zero has gone from science to policy to mainstream in less than a decade" (Deshmukh, 2022).

"'net zero' refers to the balance between the amount of greenhouse gas (GHG) that's produced and the amount that's removed from the atmosphere. It can be achieved through a combination of emission reduction and emission removal. When the input and output is balanced, net zero is reached." (National Grid, 2023)

"Put simply, net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance." (United Nations)

When defining the term "net zero" it is important to understand net zero in terms of scope 1, 2 and 3 greenhouse gas (GHG) emissions – a way of categorising the different kinds of carbon emissions a company creates in its operations, and its wider value chain.

- Scope 1 — Emissions that a company makes directly
- Scope 2 — These are the emissions it makes indirectly
- Scope 3 — In this category go all the emissions associated, not with the company itself, but that the organisation is indirectly responsible for, up and down its value chain.

Therefore, Scope 1 and 2 are most within an organisation's control. Scope 3 often has the biggest impact, as for most businesses it accounts for more than 70% of carbon footprint.

(Vishnubhotla, 2023)

(Greenhouse Gas Protocol, 2023)

Research Questions

- How do different energy companies use and interpret the term "net zero", and what does that say about their true intentions?
- How does the meaning of "net zero" differentiate between fossil fuel and renewable energy companies?

Methods

The analysis included the following companies: Siemens Energy, Ørsted, Iberdrola, Shell, ExxonMobil, and BP. The corpus consisted of the most recent sustainability report, or equivalent document, from each as well as Tweets from the companies' corporate Twitter pages.

The corpus texts were analysed according to the DIMEAN analysis model, wherein the discourse was approached through the lens of three layers: the intratextual (text), transtextual (knowledge), and agent (actor) layers. This method allowed for a means of linguistic analysis whereby linguistic elements such as keywords, metaphorical devices, and ideologies were compared across both companies and industries. Patterns were identified throughout the corpus and were translated into key findings, results, and overall conclusions.

Results

Findings of note include fossil fuel companies dismissing or neglecting implementation of Scope 3 emission targets while focusing on Scope 1 and 2 emissions, which are negligible by comparison. Fossil fuel companies were more likely to question the accuracy and legitimacy of Scope 3 emission measures, using alternative terms like "product lifecycle emissions". Renewable energy companies report accelerated timelines and net zero goals for 2040 (Iberdrola and Ørsted), ten years before the typical benchmark year of 2050. There is a trend for renewable energy companies incorporating aspects of the UN SDGs and external sustainability targets and goals. Companies from both industries framed net zero as a multi-faceted concept, incorporating ideas like energy security and sustainability related to the global energy transition. Both groups of companies discussed the effects of national and global politics on transitioning to net zero, with fossil fuel companies shifting the responsibility to governments and renewable energy companies partnering with organizations to plot a path to net zero.

The language used in Tweets points to the differing levels of emphasis placed on net zero from the companies. Tweets from renewable energy companies are urgent and emphasize a sense of responsibility and togetherness. Tweets from fossil fuel companies also mention meeting net zero energy goals but frames them as long-term problems and mention economic and business growth as necessary to achieve these goals.

Tweets from fossil fuel companies

Tweets from renewable energy companies

(@Iberdola_En, 2022)

Conclusion

The analysis of the approach and communication strategies of three renewable energy companies (Siemens Energy, Ørsted, Iberdrola) and three fossil fuel companies (Shell, ExxonMobil, BP) towards "net zero" emissions reveals a noticeable contrast.

Renewable energy companies integrate their efforts with global sustainability goals, including scope 3. They communicate with urgency and a sense of collective responsibility. In contrast, fossil fuel companies focus mainly on scope 1 and 2, overlooking their significant scope 3 emissions. Their communication frames net zero as a long-term goal, intertwined with business growth, indicating a more cautious approach to environmental responsibility.

Our research is limited through a small scope of companies and analysed a limited corpus, which could influence our results. Further research could account for other factors, including size and locations of companies, not just industry.

(@Iberdola_En, 2022)