

# Determinan Pengungkapan Emisi Karbon pada Perusahaan Sektor Energi di Indonesia: Peran *Capital Expenditure*, *Financial Slack*, dan *Firm Size* (2020–2024)

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## ABSTRACT

*The increasing demand for environmental accountability has encouraged companies to enhance transparency in carbon emission disclosure, particularly following the implementation of mandatory sustainability reporting regulations in Indonesia. However, prior studies on carbon emission disclosure predominantly focus on cross-industry samples and pre-regulation periods, resulting in limited empirical evidence from high-emission and regulation-sensitive sectors. This study examines the influence of capital expenditure, financial slack, and firm size on carbon emission disclosure in energy sector firms listed on the Indonesia Stock Exchange (IDX) during the post-sustainability reporting mandate period (2020–2024). Using a quantitative approach, secondary data from annual and sustainability reports are analyzed through multiple linear regression analysis with classical assumption tests using IBM SPSS 26. The results indicate that capital expenditure and firm size have a significant effect on carbon emission disclosure, while financial slack shows no significant influence. This study extends prior carbon emission disclosure research by providing updated empirical evidence from Indonesian energy companies during the post-sustainability reporting mandate period (2020–2024), providing updated empirical evidence within a high-emission and regulation-sensitive sector. From a theoretical perspective, the findings support legitimacy theory by demonstrating how firms respond to regulatory and societal pressures through enhanced disclosure practices. Practically, the results offer insights for regulators and corporate managers in formulating effective sustainability reporting policies and strengthening environmental transparency in high-emission industries.*

**Keywords:** *Capital Expenditure; Carbon Emission Disclosure; Financial Slack; Firm Size*

## PENDAHULUAN

Perubahan iklim telah menjadi salah satu isu paling mendesak seiring meningkatnya emisi gas rumah kaca (GRK) yang memperparah pemanasan bumi dan mengancam stabilitas lingkungan maupun sosial-ekonomi. *Intergovernmental Panel on Climate Change* (2023) melaporkan bahwa suhu rata-rata permukaan bumi pada 2011-2020 telah meningkat sekitar 1.1°C dibanding era pra-industri akibat akumulasi GRK, terutama karbon dioksida (CO<sub>2</sub>) dari pembakaran bahan bakar fosil, aktivitas industri, dan deforestasi. *Global Carbon Project* (2024) mencatat bahwa emisi CO<sub>2</sub> global pada 2023 mencapai sekitar 37 miliar ton, sehingga bertentangan dengan upaya pencapaian target *Paris Agreement* untuk membatasi kenaikan suhu di bawah 2°C serta mewujudkan *net zero emission* pada pertengahan abad ini. *International Energy Agency* (2023) menegaskan bahwa emisi dari pembangkit listrik berbasis batubara serta industri berat masih mendominasi emisi energi terkait CO<sub>2</sub>, sehingga proses transisi energi menghadapi hambatan akibat tingginya ketergantungan pada sumber fosil.

Fenomena peningkatan emisi juga terjadi di Indonesia. Badan Pusat Statistik Indonesia (2025)

