IJE | INDONESIAN JOURNAL OF ENERGY
P-ISSN: 2549-1016 | E-ISSN: 2549-760X
available online at www.ije-pyc.org

Published by: The Purnomo Yusgiantoro Center

Green Restructuring or Transition-Washing? The AlamTri Resources Indonesia Paradox

Anatasia Wahyudi [1,*]

[1] Independent Researcher, Jl. Roda Pembangunan, Nanggewer Cibinong, Bogor, Jawa Barat 16912, Indonesia

*Corresponding Author: anatasia184@gmail.com

Article History

Received 28 February 2026
Accepted 05 August 2026
Available 31 August 2026

Abstract

Our study investigated the discrepancy between corporate sustainability narratives and operational realities within the Indonesian extractive industry, focusing on the strategic restructuring and rebranding of a major coal entity. We aimed to evaluate whether asset spin-offs and "green" rebranding effectively facilitated a genuine energy transition or served as defensive impression-management mechanisms. Our study contributes by extending the legitimacy trap concept from a local socio-political defense mechanism into a multi-scalar Environmental, Social, and Governance (ESG) setting. Employing a qualitative case study approach with interactive data analysis, we examined environmental, social, and financial performance metrics from 2022 to 2024. The findings suggest a notable gap between the company's transition narrative and several reported operational indicators. Despite securing the highest domestic environmental awards, the entity's absolute greenhouse gas emissions and hazardous waste production continued to increase. We also noted a decline in social investment and new employee recruitment, indicating a neglect of the just transition principle. Crucially, we found that domestic administrative legitimacy may not have been sufficient to shield the company against global market pressures, as evidenced by the entity's inclusion in international exclusion lists and the termination of strategic commercial contracts by global off-takers. We concluded that such "perception engineering" created a legitimacy trap, in which local compliance proved insufficient to mitigate global financial delegitimation. Our findings emphasized the urgent need for absolute decarbonization metrics over procedural administrative reporting. Moreover, domestic regulatory approval can accelerate rather than prevent international capital exclusion.

Keywords:
Energy transition, financial delegitimation, greenwashing, legitimacy trap, transition-washing

1. Introduction

The escalation of the global climate crisis demands an urgent response from the energy industry sector, considering that carbon dioxide emissions reached a record 57.1 $GtCO_2e$ in 2023, which correlates directly with the increase in hydrometeorological disasters (Olhoff et al., 2024). This crisis is exacerbated by the continued operation and development of "carbon bombs"—fossil fuel projects with potential emissions exceeding the 1.5 °C carbon budget by a factor of two—highlighting the urgent need to defuse these projects to meet Paris targets (Kühne et al., 2022). In Indonesia, this urgency is manifest through the recording of 4,727 disaster events throughout 2025, where 99.26% were triggered by extreme weather (PDSI Pusdatinkom, 2025). In response to these systemic risks, financial regulators have mandated sustainability reporting under Peraturan Otoritas Jasa Keuangan No. 51/2017 (POJK

51/2017) to increase issuer transparency (OJK, 2024). Theoretically, this regulation forces issuers to build moral and normative legitimacy through sustainability reporting, rather than merely pursuing financial metrics (Geraldina et al., 2023). However, firms often use these reporting mechanisms to make symbolic gestures to maintain a "social license to operate" when faced with environmental crises, without achieving substantive alignment (Engin & Akgoz, 2023).

Within this context, PT Adaro Energy Indonesia Tbk underwent a strategic transformation by changing its identity to PT AlamTri Resources Indonesia (AlamTri) at the end of 2024, a move claimed to embody a commitment to the energy transition and the green economy. Our study purposefully selects Adaro's transition to AlamTri as a "critical case" and "revelatory case" based on Yin's (2018) methodological framework for three reasons.

First, Adaro is a systemically significant energy giant in Southeast Asia; its operational pivots dictate the economics of regional transition. Second, the structural mechanism used—the strategic carve-out and spin-off of its main coal operations paired with an immediate eco-centric corporate rebranding of the parent entity—serves as an active industry blueprint for "de-coalification" strategies. Third, this case presents an extreme manifestation of the split-legitimacy paradox, achieving peak domestic environmental accolades (Gold PROPER) while simultaneously triggering unprecedented transnational capital flight and international blacklisting. Analyzing this specific entity thus provides a clear, scalable analytical lens into the emerging global-local frictions of energy transition.

Domestically, AlamTri's transformation appears successful in building solid corporate legitimacy. The company consistently maintained a Gold PROPER rating from the Ministry of Environment and Forestry (KLHK) during the 2020–2024 period, an indicator of environmental compliance that goes beyond compliance (Okta & Meiden, 2025). According to the official assessment framework, achieving the Gold tier requires an extraordinarily long-term commitment that integrates sustainable business strategies with cross-sectoral eco-innovations and highly impactful Corporate Social Responsibility (CSR) programs focused on local economic empowerment and community welfare (Budianto, 2022; Environment Indonesia Center, 2024). Furthermore, it demands absolute transparency through sustainability reporting that discloses clear environmental and social impacts (Budianto, 2022; Environment Indonesia Center, 2024). This established criterion creates a profound empirical paradox within this case study. While the company officially captured the highest national token for community and ecological excellence, its localized CSR investments simultaneously declined, and its absolute physical emissions continued to expand (Budianto, 2022; Environment Indonesia Center, 2024).

The success of this reputation management is reinforced by impressive financial performance, with Return on Equity (ROE) reaching 43.4% post-diversification (Auditua & Samputra, 2025). This condition highlights a performance paradox, where significant corporate growth is often inversely proportional to the ability or willingness to reduce carbon emissions, as profitability remains tied to high-carbon activities (Chou et al., 2025). This behavior aligns with the "necessitarianism" frame often used by fossil fuel companies to justify their continued existence as necessary services, despite their role as the primary driver of climate change (Megura & Gunderson, 2022). Furthermore, the accelerating treadmill of energy demand based on fossil-fuelled practices continues to drive emissions upward, nullifying advances in efficiency and making climate mitigation exceedingly difficult (Murphy, 2024).

However, a fundamental paradox lies at the heart of this research problem: the narrative of transition success contradicts operational reality. The latest sustainability report data shows that the company's Greenhouse Gas (GHG) emissions actually increased consistently, reaching 1.26 million tCO_2e in 2024, inversely proportional to the green image constructed (PT AlamTri Resources Indonesia Tbk., 2025). This phenomenon showcases a sharp decoupling between administrative sustainability claims and real operational performance, indicative of a Green Paradox where administrative tightening does not immediately translate to reduced physical emissions (Yin et al., 2022).

In this case, the corporate restructuring, specifically the coal asset spin-off mechanism, is suspected by the global market as a manipulative practice known as transition-washing, where structural maneuvers are used to mask stagnant or increasing operational emissions (Kim et al., 2024; Varshney & Perotti, 2024). These maneuvers often use "techno-optimism" frames, acknowledging climate change as a problem while recommending solutions—such as carbon offsets or structural engineering—that preserve, rather than challenge, the carbon-intensive system (Megura & Gunderson, 2022). Such structural decomposition of assets is often engineered to maintain financial efficiency for stakeholders rather than achieving tangible environmental cohesion (Lorenc et al., 2023).

The research gap in our study lies in the discrepancy between domestic legitimacy and global delegitimacy. Previous studies focus mainly on rebranding and financial success. In contrast, our study highlights the failure of that strategy in international markets. For example, 143 financial institutions included the firm in Exclusion Lists (Financial Exclusions Tracker, n.d.). Hyundai also canceled its supply contract due to public pressure (Reuters, 2024). This phenomenon reflects a shift toward climate delay discourses (Si et al., 2023). Firms link renewables with natural gas to obstruct climate action. This delegitimation reflects temporal disorder (van Veelen, 2025). Local firms retain a promise of coal profitability against global phase-out pressures. This highlights feasibility challenges for Leave Fossil Fuels Underground (LFFU) approaches (Rempel & Gupta, 2022). The spin-off retains 15% minority ownership to avoid emission consolidation. Global markets suspect this practice as transition-washing (Kim et al., 2024; Peh & Yustika, 2025). This mirrors global trends where coal companies employ "green coal" narratives (Martus & Fortescue, 2022). Domestic legitimacy failed to buffer against global pressures. This highlights "fossil fuel racism" where environmental degradation is externalized (Donaghy et al., 2023).

Based on this background, our research problem examines legitimacy management amidst decarbonization pressures. We also investigate why structural engineering fails to convince global stakeholders. Therefore, we pursue three specific research aims. First, we analyze the spin-off communication strategy using greenwashing frameworks. Second, we evaluate the gap between administrative claims and operational performance. Third, we interpret the shift in stakeholder salience that drives financial losses. While existing literature traditionalizes the 'Legitimacy Trap' as a defense mechanism against local socio-political pressures, we extend the concept by demonstrating how it operates in a multi-scalar ESG environment. Over-reliance on local administrative compliance creates a false sense of security that leads to a systemic trap when confronted by global ESG taxonomies, revealing that domestic regulatory approval can inadvertently accelerate international capital exclusion.

2. Methods and Materials

The primary object of this research is AlamTri Resources Indonesia (formerly Adaro Energy Indonesia), with a specific focus on its strategic sustainability communication and the corporate spin-off of its coal assets. Our study examines the discrepancy between the company's domestic legitimacy and the global market's response to its energy transition efforts within a comprehensive timeframe from 2022 to 2024. The target window analyzes corporate sustainability reports from 2022 to 2024. This specific timeframe is selected because it captures the critical operational and reporting period that directly built up to the firm's peak domestic legitimacy, culminating in its Gold PROPER awards during the 2020–2024 period (Okta & Meiden, 2025), while simultaneously preceding its major structural asset spin-off and corporate rebranding. The data were collected via archival analysis of digital documents that are publicly available on the Indonesia Stock Exchange official website, corporate portals, and international financial supervisory databases accessible online.

2.1 Data Collection and Source Triangulation

The data collection utilizes documentation and literature studies to gather relevant secondary data without interfering with the subject's operational activities. Data is collected from two main categories to ensure validity through source triangulation. Internal corporate sources include Sustainability Reports from 2022 to 2024 to obtain operational data on emissions, waste, and conservation claims. In practice, this triangulation is executed by directly comparing the corporate environmental claims from internal reports against documented criticisms and blacklisting criteria from external databases to identify points of alignment or discrepancies. Meanwhile, external sources include investment exclusion data from the Financial Exclusions Tracker and reports from Greenpeace to assess global market sentiment and negative ESG designations (Financial Exclusions Tracker, n.d.; Greenpeace, 2024). Our external data are utilized specifically as indicators of institutional market sentiment, and their potential subjectivity is addressed by only recording negative designations that are consistent with verifiable, documented financial divestments.

Our research instrument employs a digital observation sheet designed to record and categorize environmental performance metrics, such as GHG emissions and hazardous waste, alongside market sentiment indicators like investment blacklists. The digital observation sheet categorizes variables into environmental metrics, market sentiment indicators, and a comparative matrix, which supports the analysis by systematically mapping how corporate disclosures align with external market penalties.

2.2 Data Analysis Procedures

The data analysis follows the qualitative interactive model as initially developed by Miles & Huberman (1994). This analytical process integrates three concurrent activities: data reduction, data display, and conclusion drawing/verification. Data reduction simplified raw disclosures into specific operational metrics like Scope 1 emissions; data display mapped these metrics into a thematic matrix alongside external greenwashing criticisms; and interpretation evaluated these gaps through the lens of Legitimacy Theory. Initially, data reduction is performed by selecting and simplifying raw information from sustainability reports to isolate key transition claims from strategic structural engineering.

Subsequently, the data display stage involves organizing the company's 'green' narratives into thematic matrices, juxtaposing them with factual data on emission increases and hazardous waste. Finally, the analysis involves theoretical interpretation through the lens of Legitimacy Theory and the concept of transition-washing. To ensure internal validity, we employ the pattern-matching approach as suggested by Yin (2018). We compare empirically observed restructuring patterns with predicted theoretical frameworks of corporate delegitimization. The expected theoretical pattern predicts that widening ESG performance gaps will trigger institutional divestment, which is consistent with the observed empirical pattern of the company being placed on international investment blacklists.

3. Results and Discussions

The corporate restructuring of PT Adaro Energy Indonesia Tbk into PT AlamTri Resources Indonesia (AlamTri) at the end of 2024 produced divergent trajectories across financial, operational, environmental, and social dimensions. In official Sustainability Reports (2022–2024), management framed this transformation as a necessary structural realignment to pioneer the green energy transition in Southeast Asia. However, an empirical evaluation of disclosed figures demonstrates a clear decoupling between corporate narratives and operational metrics.

The immediate financial and operational impact of carving out the primary coal subsidiary (PT Adaro Indonesia) resulted in a substantial contraction of operational scale. As mapped in Figure 1, total operational assets contracted by 36.0%, falling from USD 10,473 million in 2023 to USD 6,702 million in 2024. Operating revenues also adjusted from USD 2,135 million in 2023 to USD 2,079 million in 2024 (and USD 1,874 million in 2025). Sustainability Reports attribute this structural scale reduction directly to the deconsolidation of core coal assets. Conversely, corporate net profits expanded by 125.1% during the same period. Corporate disclosures explain this profit spike as a non-recurring accounting revaluation gain derived from the strategic divestment rather than core operational growth.

Figure 1. Trend of operational and financial performance. (Source: Processed from Company Sustainability Reports).

Despite the 'green' narrative—which is defined as a strategic corporate communication framework characterized by symbolic eco-centric rebranding, green visual identities, and the public amplification of localized administrative compliance awards (e.g., Gold PROPER ratings) to project a transition-aligned corporate image—operational data from the audited Sustainability Reports shows a consistent increase in environmental loads (PT AlamTri Resources Indonesia Tbk., 2025). Absolute greenhouse gas (GHG) emissions peaked at 1,26 million tCO_2e in 2024, representing a 17.3% expansion over 2022 levels (PT AlamTri Resources Indonesia Tbk., 2025). As visualized in Figure 2, this rise in physical carbon output was accompanied by steady increases in absolute energy consumption (+24.3%) and hazardous waste (B3) generation (+47.2%), confirming a structural decoupling between symbolic compliance and absolute physical performance (PT AlamTri Resources Indonesia Tbk., 2025).

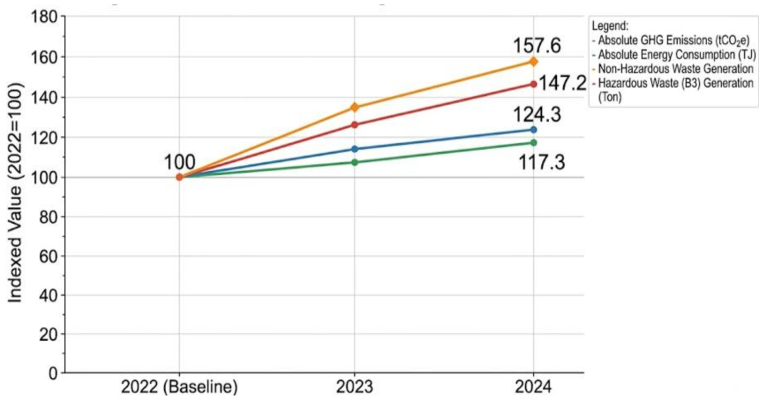

Figure 2. Trend of increasing environmental burden (2022–2024). (Source: Processed from Company Sustainability Reports).

The restructuring process also exerted divergent impacts on social and workforce performance. In official reporting, management emphasized organizational streamlining and diversity improvements. As detailed in the audited data, female employee representation increased by 25.8%, rising from 838 personnel in 2022 to 1,054 in 2024, alongside a marginal 2.0% gain in employee engagement scores (from 86% to 88%).

However, broader social commitments underwent severe contraction. As visualized in the indexed data in Figure 3, corporate social responsibility (CSR) expenditures dropped by 41.3%, falling from IDR 160 billion in 2022 to IDR 94 billion in 2024. The most drastic reduction was observed in human capital investment, where new recruitment plummeted by 69.5%, decreasing from 3,358 new hires in 2022 to just 1,023 in 2024. The average training hours also showed volatility, peaking in 2023 before normalizing. Corporate disclosures frame these budgetary adjustments as operational rightsizing following asset deconsolidation.

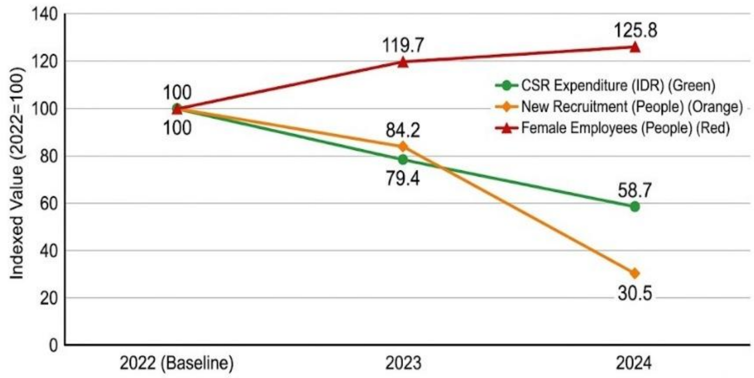

Figure 3. Social and labor performance. (Source: Processed from Company Sustainability Reports)

This divergence between domestic administrative compliance and physical environmental performance produced material repercussions in the international capital market. While domestic disclosures framed the corporate transformation as an eco-friendly milestone, global financial markets reacted with heightened skepticism. To ensure empirical objectivity, these transnational market responses were tracked strictly through independent, verifiable institutional registries. As summarized in Table 1, the company faced documented exclusionary actions from 143 global financial institutions, inclusion in international coal blacklists ("Dirty 30"), and the commercial termination of strategic clean energy supply MoUs (such as the aluminum supply agreement with Hyundai). These external market actions demonstrate that domestic regulatory accolades failed to buffer the entity against global market pressures and ESG exclusion criteria.

Table 1. International market response and reputation risk (2024).

Reputational Risk Indicators	Documented Status / Metric	Primary Source & Verification Database
Institutional divestment & exclusion	Exclusion by 143 financial institutions	Financial Exclusions Tracker (Global Financial Exclusions Database, nd)
Transnational ESG designation	Designated on the international "Dirty 30" Coal List	Greenpeace (2024)
Commercial agreement termination	Withdrawal from the Aluminum Supply MoU	(Reuters, 2024)

Source: Financial Exclusions Tracker (n.d), Greenpeace (2024), and Reuters (2024)

3.1 Reputation vs. Reality: Analysis of Decoupling and the Green Paradox

Our results show a significant divergence between domestic administrative legitimacy and operational environmental reality. The strategic restructuring through the coal asset spin-off into AlamTri Resources Indonesia created a "decarbonization paradox," where financial performance remained strong, but absolute environmental burdens increased. This is consistent with concerns about transition-washing, where spin-off mechanisms are utilized to create artificial accounting emission reductions without conducting substantive internal decarbonization (Kim et al., 2024).

Our findings support the argument that corporate restructuring is often a maneuver to "greenwash" balance sheets rather than a sincere effort toward decarbonization (Varshney & Perotti, 2024). The company employs a "techno-optimism" frame, acknowledging climate change as a problem while recommending solutions that preserve the carbon-intensive system, thus constituting a subtle form of climate denialism (Megura & Gunderson, 2022).

Our research suggests that domestic administrative labels, such as the PROPER Gold rating, are no longer sufficient to reflect actual environmental performance when faced with absolute physical load metrics. Furthermore, the decline in social investment (CSR) and employee recruitment aligns with findings indicating that green economy policies are frequently used as a shield for aggressive labor efficiency, thereby neglecting the Just Transition principle (Braga & Ernst, 2023). This paradox highlights a Green Paradox, where the anticipation of tightened regulation leads to maximized production and increased emissions before the eventual spin-off, nullifying advances in efficiency through an accelerating treadmill of demand (Murphy, 2024; K. Yin et al., 2022).

3.2 Transition-washing within Legitimacy Trap

The phenomenon of financial delegitimation at the global level is the most critical finding. Despite maintaining domestic legitimacy through national awards, the company failed to meet the expectations of international stakeholders who possess higher power and urgency. The inclusion of the group in the Exclusion Lists of 143 financial institutions and the termination of strategic contracts by Hyundai, as reported by Greenpeace (2024), serve as empirical evidence that the reputational risks associated with transition-washing have transformed into tangible commercial losses. The company's strategic shift from outright climate denial to nuanced discourses of climate delay on social media, linking renewables with natural gas to obstruct immediate action, has proven ineffective against global scrutiny (Si et al., 2023).

Our results are consistent with the Stakeholder Salience theory, demonstrating that global public pressure is now capable of directly influencing commercial revenue beyond the boundaries of national regulation. Furthermore, the failure of domestic legitimacy to buffer against global pressures highlights the need to address "fossil fuel racism," where the externalization of environmental degradation onto local communities drives global financial institutions to reject companies contributing to these injustices (Donaghy et al., 2023).

Consequently, our study recontextualizes the concept of the 'Legitimacy Trap' within the contemporary framework of energy transition. Over-reliance on local administrative compliance creates a false sense of security that leads to a systemic trap when confronted by global ESG taxonomies. Ultimately, the findings suggest that the 'social license to operate' has evolved into a globalized mandate, where domestic legitimacy is no longer a standalone defense against international financial delegitimation. This highlights the feasibility challenges of LFFU (Leave Fossil Fuels Underground) approaches, as powerful vested interests continue to delay the retirement of existing fossil infrastructure despite international financial pressure (Rempel & Gupta, 2022).

4. Conclusions

Our study investigated the sustainability communication strategies and structural engineering techniques employed by AlamTri Resources Indonesia to manage legitimacy amidst global decarbonization pressures. By analyzing sustainability reports, financial data, and market reactions, our research reveals that the company's rebranding and coal asset spin-offs served as a defensive impression management mechanism, indicative of transition-washing practices.

Our results demonstrate a significant decoupling between the company’s transition narrative and its operational reality; despite adopting a "green" identity, the data shows a persistent, absolute increase in Greenhouse Gas emissions, reaching 1.26 million tCO_2e in 2024, along with a sharp rise in hazardous waste production. These findings underscore how fossil fuel firms perpetuate the "treadmill of production," where incremental efficiency gains are nullified by the continued pursuit of maximizing output, driving emissions upward despite transition rhetoric.

Our research contributes to the academic literature on corporate sustainability by establishing that domestic administrative compliance is insufficient to mitigate global climate risks. The extreme legitimacy gap identified has escalated into tangible financial delegitimation, evidenced by the company's exclusion from 143 international financial institutions and the termination of strategic commercial contracts, such as the aluminum supply MoU with Hyundai. This delegitimation reflects the failure of "climate delay" tactics—such as linking renewables with natural gas—to satisfy international stakeholders who are increasingly aware of "carbon bombs" and the need to defuse them. Consequently, 'perception engineering' through spin-offs faces diminishing returns as international markets shift focus from procedural compliance to absolute physical decarbonization metrics.

This study has inherent analytical limitations. First, our empirical evaluation relied primarily on secondary corporate disclosures and external institutional databases without primary interview data. Second, the analytical timeframe was limited to the 2022–2024 restructuring window, which may not capture the long-term operational impacts of the spin-off. Third, as a single-case study on an Indonesian energy giant, the findings may require contextual adaptation before generalization to other emerging markets.

For managers, we recommend prioritizing absolute physical decarbonization and Scope 3 disclosures to regain trust. Local awards cannot buffer against global divestment. Furthermore, firms must address "fossil fuel racism" because externalizing environmental harms is unviable globally. For regulators, national reporting standards must harmonize with global ESG taxonomies to close spin-off accounting loopholes. Future research should use longitudinal primary data, such as investor interviews, to explore global market rejections of domestic transition narratives.

Acknowledgments

This research did not receive any specific grant from funding agencies in the public, commercial, or non-profit sectors. During the preparation of this work, the author utilized an AI-based language model (Gemini) solely for language editing, grammar refinement, and improving manuscript readability. All conceptual frameworks, study designs, data collection, empirical analysis, and final interpretations were conducted independently by the author, who takes full responsibility for the content of this publication.

References

Auditua, H., & Samputra, P. L. (2025). Evaluation of the business performance of PT Adaro Energy Indonesia Tbk before and after business diversification with a competitive intelligence approach. *Asian Journal of Social and Humanities*, *3*(6), 1226–1244. https://doi.org/10.59888/ajosh.v3I6.517

Braga, J. P., & Ernst, E. (2023). Financing the green transition. The role of macro-economic policies in ensuring a just transition. *Frontiers in Climate*, *5*, 1–14. https://doi.org/10.3389/fclim.2023.1192706

Budianto, V. A. (2022, March 23). *Yuk kenali PROPER dan bagaimana proses penilaian PROPER*. Hukumonline. https://www.hukumonline.com/klinik/a/yuk-kenali-proper-dan-bagaimana-proses-penilaian-proper-lt623ae572a9d76/#_ftn3

Chou, C., Yang, K. P., & Schwarz, G. M. (2025). The paradox of increased carbon emissions and firm performance. *Australian Journal of Management*. https://doi.org/10.1177/03128962251319714

Donaghy, T. Q., Healy, N., Jiang, C. Y., & Battle, C. P. (2023). Fossil fuel racism in the United States: How phasing out coal, oil, and gas can protect communities. *Energy Research & Social Science*, *100*, 103104. https://doi.org/10.1016/j.erss.2023.103104

Engin, E., & Akgoz, B. E. (2023). Organizational legitimacy through storytelling. In A. C. Ceylan & S. Batal (Eds.), *International studies in social, human and administrative sciences-II* (pp. 113–127). Seruven Publishing.

Environment Indonesia Center. (2024, December 16). *7 poin penting PROPER hijau dan PROPER emas dalam penilaian lingkungan*. Environment Indonesia Center. https://environment-indonesia.com/7-poin-penting-proper-hijau-dan-proper-emas-dalam-penilaian-lingkungan/

Financial Exclusions Tracker. (n.d.). *Financial exclusions tracker 2024 edition*. Retrieved December 25, 2025, from https://financialexclusionstracker.org/

Geraldina, I., Arieftiara. Dianwicaksih, Meini, Z., & Muktiyanto, A. (2023). *Greenwashing teori dan praktik pada konteks perusahaan di negara ASEAN*. Deepublish.

Greenpeace. (2024). *Masuk daftar Dirty 30, koalisi organisasi masyarakat sipil ucapkan selamat ke Adaro*. Greenpeace. https://www.greenpeace.org/indonesia/siaran-pers-2/58301/masuk-daftar-dirty-30-koalisi-organisasi-masyarakat-sipil-ucapkan-selamat-ke-adaro/

Kim, S., Li, T., & Wu, Y. (2024). Carbon offsets: decarbonization or transition-washing? *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4762799

Kühne, K., Bartsch, N., Tate, R. D., Higson, J., & Habet, A. (2022). "Carbon bombs" - Mapping key fossil fuel projects. *Energy Policy*, *166*(6451), 112950. https://doi.org/10.1016/j.enpol.2022.112950

Lorenc, S., Leśniak, T., Kustra, A., & Sierpińska, M. (2023). Evolution of business models of mining and energy sector companies according to current market trends. *Energies 2023, 16*(13). https://doi.org/10.3390/en16135212

Martus, E., & Fortescue, S. (2022). Russian coal in a changing climate: risks and opportunities for industry and government. *Climatic Change*, *173*(3), 26. https://doi.org/10.1007/s10584-022-03420-0

Megura, M., & Gunderson, R. (2022). Better poison is the cure? Critically examining fossil fuel companies, climate change framing, and corporate sustainability reports. *Energy Research & Social Science*, *85*, 102388. https://doi.org/10.1016/j.erss.2021.102388

Murphy, R. (2024). What is undermining climate change mitigation? How fossil-fuelled practices challenge low-carbon transitions. *Energy Research & Social Science*, *108*, 103390. https://doi.org/10.1016/j.erss.2023.103390

Otoritas Jasa Keuangan (OJK). (2024). *Petunjuk teknis bagi perusahaan pembiayaan dan perusahaan pembiayaan syariah terkait implementasi POJK 51/POJK.03/2017 tentang penerapan keuangan berkelanjutan bagi lembaga jasa keuangan, emiten, dan perusahaan publik*.

Okta, F. D., & Meiden, C. (2025). Evaluation of the implementation of an integrated ESG strategy in support of achieving Gold Proper in 2024: A case study of the implementation by PT Adaro Energy Indonesia. *Return Study of Management Economic and Bussines*, *9*(4), 716–729. https://doi.org/10.57096/return.v4i9.400

Olhoff, A., Bataille, C., Christensen, J., den Elzen, M., Fransen, T., Grant, N., Blok, K., Kejun, J., Soubeyran, E., Lamb, W., Levin, K., Portugal-Pereira, J., Pathak, M., Kuramochi, T., Strinati, C., Roe, S., & Rogelj, J. (2024). *Emissions gap report 2024: No more hot air … please! With a massive gap between rhetoric and reality, countries draft new climate commitments*. United Nations Environment Programme. https://doi.org/10.59117/20.500.11822/46404

PDSI Pusdatinkom. (2025, June 20). *Infografis Bencana Tahun 2025*. BNPB. https://bnpb.go.id/infografis/infografis-bencana-tahun-2025

Peh, G., & Yustika, M. (2025). *Spin-off batu bara Adaro ungkap celah dalam kebijakan divestasi bank*. https://ieefa.org/sites/default/files/2025-02/IEEFA_Spin-off%20Batu%20Bara%20Adaro%20Ungkap%20Celah%20dalam%20Kebijakan%20Divestasi%20Bank.pdf

PT AlamTri Resources Indonesia Tbk. (2025, April 23). *Sustainability report 2024*. https://www.AlamTri.com/files/news/berkas_eng/2328/SR%20ALAMTRI%202024.pdf

Rempel, A., & Gupta, J. (2022). Equitable, effective, and feasible approaches for a prospective fossil fuel transition. *Wiley Interdisciplinary Reviews: Climate Change*, *13*(2), e756. https://doi.org/10.1002/wcc.756

Reuters. (2024, April 2). *Hyundai Motor ends Indonesia aluminium deal after climate campaign by K-pop fans*. Thomson Reuters. https://www.reuters.com/business/autos-transportation/hyundai-motor-ends-indonesia-aluminium-deal-after-climate-campaign-by-k-pop-fans-2024-04-02/

Si, Y., Desai, D., Bozhilova, D., Puffer, S., & Stephens, J. C. (2023). Fossil fuel companies' climate communication strategies: Industry messaging on renewables and natural gas. *Energy Research & Social Science*, *98*(8), 103028. https://doi.org/10.1016/j.erss.2023.103028

van Veelen, B. (2025). A tale of two coals: the politics of time in coal phase out. *Environmental Politics*. https://doi.org/10.1080/09644016.2024.2445409

Varshney, A., & Perotti, C. (2024, November 28). *Adaro's coal spin-off: growing a climate conscience or simple greenwashing?* Banktrack.Org. https://www.banktrack.org/article/adaro_s_coal_spinoff_growing_a_climate_conscience_or_simple_greenwashing

Yin, K., Liu, L., & Gu, H. (2022). Green paradox or forced emission reduction—The dual effects of environmental regulation on carbon emissions. *International Journal of Environmental Research and Public Health*, *19*(17), 11058. https://doi.org/10.3390/ijerph191711058

Yin, R. K. (2018). *Case study research and application design and methods* (6th ed.). SAGE.