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# White-Collar Greenwashing: Criminological Aspects of Green Marketing in Renewable Energy Projects*

**Keywords:** corporate crime, green criminology, informational asymmetry, information manipulation, regulatory policy

**Summary.** This article offers a systematic analysis of white-collar greenwashing, conceptualised as a complex phenomenon operating at the intersection of economic, environmental, and informational pathologies. The study, grounded in an interdisciplinary criminological perspective combined with legal and media discourse analysis, indicates that these practices, particularly within the Renewable Energy Sources (RES) sector, constitute a form of hidden pathology. Greenwashing, by exploiting information asymmetry and mechanisms of moral rationalisation, not only manipulates markets but also erodes public trust and undermines the legitimacy of sustainable development policies. Theoretically, the phenomenon is interpreted through the lens of Rational Choice Theory, Green Criminology, and the concepts of institutional hypocrisy. Findings from case studies conducted in Central and Eastern Europe indicate that key communication slogans (such as "climate neutrality" or "green transition") serve to legitimise harmful activities. The paper highlights the issue of compliance formalism (the superficial satisfaction of legal requirements without genuine adherence to their axiological goals), which contributes to diffused victimisation and the normalisation of damaging practices. The article postulates strengthening cognitive and educational prevention and frames white-collar greenwashing as a hybrid form of economic pathology, where information serves simultaneously as the tool, object, and environment of the offence.

## White-Collar Greenwashing: kryminologiczne aspekty zielonego marketingu w projektach OZE

**Słowa kluczowe:** przestępczość korporacyjna, zielona kryminologia, asymetria informacyjna, manipulacja informacją, polityka regulacyjna

**Streszczenie.** Artykuł podejmuje analizę zjawiska *white-collar greenwashingu* lokującego się na przecięciu patologii o charakterze gospodarczym, środowiskowym oraz informacyjnym. Badanie, oparte

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na interdyscyplinarnej perspektywie kryminologicznej i analizie dyskursu medialnego oraz prawnego, wskazuje, że praktyki te, zwłaszcza w sektorze Odnawialnych Źródeł Energii (OZE), stanowią formę patologicznego ukrytego fenomenu. Greenwashing, wykorzystujący asymetrię informacyjną i moralną racjonalizację, nie tylko manipuluje rynkiem, ale także eroduje zaufanie społeczne i podważa legitymizację polityk zrównoważonego rozwoju. W warstwie teoretycznej zjawisko jest interpretowane przez pryzmat teorii racjonalnego wyboru, zielonej kryminologii oraz koncepcji instytucjonalnej hipokryzji. Wyniki analizy studiów przypadków z Europy Środkowo-Wschodniej wskazują, że kluczowe hasła komunikacyjne (jak „neutralność klimatyczna" czy „zielona transformacja") służą legitymizowaniu działań szkodliwych. Podkreślono problem *compliance formalism* (powierzchowne spełnianie wymogów prawnych), który prowadzi do rozproszonej wiktymizacji i normalizacji działań szkodliwych. Artykuł postuluje wzmacnianie prewencji poznawczej i ujmuje *white-collar greenwashing* jako hybrydową formę patologii gospodarczej, w której informacja jest jednocześnie narzędziem, przedmiotem i środowiskiem popełnienia czynu.

## Introduction

In interdisciplinary scholarship, information has long been recognised as a critical resource shaping the functioning of societies, including their economic dimensions. Within this framework, data and the knowledge derived from it have emerged as fundamental factors of production, alongside labour, land, and capital[1]. Information constitutes both an object of exchange, investment, and speculation, and a strategic asset whose value increases with analytical capacity. Access to data and, crucially, its effective interpretation facilitates the creation of competitive advantage. Detailed insight into consumer behaviour has become as valuable as the material outcomes of their decisions. Information also plays a decisive role in structuring market mechanisms, functioning as a determinant of economic stability and a barometer of social trust. Unlike tangible commodities, it is not depleted through use; indeed, its value may increase with dissemination. Its inexhaustibility, particularly in financial and digital sectors, has enabled the development of economic models driven by artificial reasoning, machine learning, pattern recognition, and autonomous decision-making. The convergence of vast datasets and algorithmic computation, powered by previously unattainable processing capacities, has allowed "machines" to perform tasks once reserved for human cognition[2]. At the social level, information underpins processes of communication, social control, and public opinion formation, thereby becoming an instrument of symbolic power and a mechanism

[1] See F. Machlup, *The Production and Distribution of Knowledge in the United States*, Princeton 1962, p. 321.

[2] See. S. Buczyński, *Konsument wobec internetowej reklamy behawioralnej*, [in:] *Ochrona konsumenta w prawie polskim i Unii Europejskiej*, eds. M. Królikowska-Olczak, B. Pachuca-Smulska Warszawa 2013, pp. 321-345. S. Buczyński, *Działania na zbiorach typu Big Data z perspektywy ochrony praw ekonsumenta*, [in:] *Ochrona konsumenta…*, pp. 119-147; S. Buczyński, *Ochrona dziedzictwa kulturowego a działania na dużych szybkozmiennych zbiorach danych – perspektywa kryminologiczna*, „Studia Prawnoustrojowe" 2020, No. 43, pp. 167-195.

of domination. These attributes mean that information can also produce considerable social harm, including market destabilisation, erosion of trust, and distortion of authority. As a legally protected resource and an instrument of governance, it simultaneously constitutes a domain of deviant and criminal behaviour. As Mark Levi aptly observes, contemporary economic crime is essentially an informational game in which success depends on the ability to falsify, conceal, or selectively disclose data[3]. Information asymmetry may lead to market failure and degradation, resulting in the withdrawal of high-quality goods and the exclusion of honest participants, as actors exploit informational advantage[4]. In this sense, disinformation and manipulation can be understood as forms of information crime: the strategic use of informational asymmetry to achieve economic gain while maintaining the appearance of legality. Moreover, as Sally Simpson, one of the leading scholars of white-collar and corporate crime, has observed, purely material forms of economic offending are increasingly rare; most now contain a cybernetic component. Consequently, scholars analysing such phenomena must possess advanced knowledge of cybercrime and digital infrastructure, or collaborate within interdisciplinary teams that provide the necessary technological and analytical expertise. The unifying thread across these offences lies in the pursuit of illicit advantage, typically achieved through manipulation of information, violation of trust, and calculated disregard for regulatory mechanisms[5]. In information crime, false or selective data operates as the principal instrument of causation.

The development of the renewable energy sector (RES) in Europe, including in Poland, regardless of broader evaluative dimensions (such as its potential to mitigate the climate crisis or facilitate the transition away from fossil fuels) can also be examined as a phenomenon of substantial economic significance. In public discourse, the narrative of green transition is frequently associated with civilisational progress, energy security, and ethical responsibility towards ecosystems and future generations. Yet these same categories may also provide a formal framework for conduct that undermines the rights of those generations. The influx of significant financial resources from EU and national support programmes, accompanied by rising environmental awareness, has also generated undesirable, unethical, and pathological phenomena, most notably, the misuse of ecological rhetoric. Broadly defined economic crime, including white-collar offences classified according to subjective, objective, or mixed criteria, is undergoing dynamic and substantial transformation. Its plasticity, understood as the ability to adapt to evolving social

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[3] M. Levi, *Regulating Fraud: White-Collar Crime and the Criminal Process*, London 2014, pp. 118-127.

[4] G.A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, „Quarterly Journal of Economics" 1970, Vol. 84, No. 3, pp. 488-500.

[5] S.S. Simpson, *Corporate Crime, Law, and Social Control*, Cambridge 2002.

and economic conditions, poses a considerable challenge to both law enforcement agencies and academic researchers. Historically, criminological research has focused primarily on traditional manifestations of economic crime, such as financial fraud, insider trading, and tax evasion. Increasingly, however, there is a pressing need to account for emerging domains where mechanisms of white-collar offending intersect with environmental challenges. The concept of greenwashing[6] entered public debate in the 1980s[7] to describe corporate image practices that create a false impression of environmental responsibility without genuine ecological improvement[8]. In academic usage, operational definitions characterise it as the practice of misleading stakeholders, including consumers and investors, by presenting products, services, policies, or practices as more environmentally friendly than they truly are[9]. Accordingly, greenwashing represents an unethical or unlawful marketing, reputational, or market practice relying on manipulated environmental information[10]. Analyses conducted under the WCC-TRAJECT project indicate that such conduct may take a symbolic form, limited to the use of environmentally coded language and aesthetics in corporate communication, or a structural form, involving mechanisms that perpetuate violations. The latter encompasses falsified environmental reports, data manipulation, and concealment of actual ecological impacts. It also includes pseudo-investments in renewable energy and false legitimisation of environmentally harmful activities, such as hidden trade-offs, lack of proof, vagueness, irrelevance, lesser-of-two-evils claims, and fabrication[11].

Contemporary economic crimes rarely remain purely material, they increasingly involve manipulation of data, reputation, and narrative. In this light, the term white-collar greenwashing (hereinafter referred to as WC-GW), proposed

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[6] In Polish academic and popular-scientific discourse, the term is translated variously as *ekooszustwo* (eco-fraud), *ekokłamstwo* (eco-lie), *zielone mydlenie oczu* (green eyewash), *zielone kłamstwo* (green lie), or *zielone rozmijanie się z prawdą* (green distortion of truth). The author proposes that, considering the characteristics of the phenomenon and the established conceptual framework in legal and criminological language, *greenwashing* should be rendered in Polish as *ekomnipulacja* (eco-manipulation) or, more precisely, as *manipulacja informacją o znaczeniu ekologicznym* (manipulation of information with environmental significance). These terms will be used interchangeably throughout the presentation of the research findings.

[7] See I. Przybojewska, *Greenwashing w kontekście unormowań prawnych*, „Prawne Problemy Górnictwa i Ochrony Środowiska" 2022, No. 1, p. 1.

[8] M.A. Delmas, V.C. Burbano, *The Drivers of Greenwashing*, „California Management Review" 2011, Vol. 54, No. 1, p. 66.

[9] G. Nyilasy, H. Gangadharbatla, A. Paladino, *Perceived Greenwashing: The Interactive Effects of Green Advertising and Corporate Environmental Performance on Consumer Responses*, „Journal of Business Ethics" 2014, Vol. 125, No. 4, pp. 693-707.

[10] See K. Becker-Olsen, S. Potucek, *Greenwashing*, [in:] *Encyclopedia of Corporate Social Responsibility*, eds. S.O. Idowu, N. Capaldi, L. Zu, A.D. Gupta, Berlin, Heidelberg 2013, pp. 1318-1323.

[11] TerraChoice Environmental Marketing Inc., *The Sins of Greenwashing: A Study of Environmental Claims in North American Consumer Markets*, Ottawa 2007, pp. 2-4.

by the author, seeks to capture the specific characteristics of this phenomenon by identifying behaviours that combine the mechanisms of economic crime with the communicative abuse of ecological discourse, rooted in asymmetries of knowledge, language, and symbolic power[12]. This refers to the deliberate deception regarding the true environmental impact of economic activity, products, services, or investments, pursued for economic, reputational, or regulatory gain, while maintaining the semblance of compliance with sustainable development and climate policy principles. The phenomenon is distinguished by the strategic use of corporate communication tools, scientific language, and ecological symbolism to construct a false image of environmental responsibility[13]. Drawing on Edwin Sutherland's seminal 1949 work White Collar Crime, which defined such offences as acts committed by persons of high social status in the course of their professional activities, WC-GW can be viewed as a contemporary, environmental variant of this form of criminality. It should not be regarded as marginal but as indicative of broader socio-economic transformations. Even actions that remain within the boundaries of formal legality may erode social trust and infringe collective goods.

In this sense, the phenomenon exemplifies the instrumentalisation of environmental values within the market economy. Typological frameworks for WC-GW may range from behaviours that excessively emphasise ecological aspects in communication to the deliberate fabrication of data and fictitious environmental reporting. Within this analytical space, attention should be directed both to misleading marketing communications and to complex legitimisation strategies designed to justify actions that substantially violate shared ecological values[14]. Such manipulation may, under certain circumstances, fulfil the statutory elements of fraud or unlawful information manipulation. In particular, so-called "hard" or "black" WC-GW may, in specific factual contexts, meet the criteria of financial fraud, especially where it concerns investment products, influences investors' decision-making, results in the attainment of financial gain, and is based on deliberate misrepresentation or the concealment of material information. In the context of financial markets, the manipulation of environmentally relevant information may constitute a central

[12] For the purpose of this analysis, the term "WC-GW" is interpreted as a contemporary manifestation of criminality that encompasses deceptive acts committed by individuals and corporate entities alike. This broad scope is inherently consistent with the foundational definition of white-collar crime pioneered by Edwin Sutherland.

[13] WC-GW – criminal or quasi-criminal practices involving the instrumental use of environmental discourse to obtain undue economic, reputational, or image-related benefits, while simultaneously misleading the public or regulatory authorities regarding the actual environmental outcomes of the activities undertaken.

[14] See A. Kuzior, A. Lobanova, *Tools of Information and Communication Technologies in Ecological Marketing under Conditions of Sustainable Development in Industrial Regions (Through Examples of Poland and Ukraine)*, „Journal of Risk and Financial Management" 2020, Vol. 13, No. 10, p. 238.

component of a fraudulent mechanism, leading to the undue transfer of financial resources, misallocation of capital, and, in a broader perspective, to the systemic distortion of market decision-making processes.

At the regional level, such practices often emerge at the intersection of public, business, and political sectors, and are linked to mechanisms governing the distribution of supranational and public subsidies. From a legal standpoint, these behaviours may meet the criteria of unfair competition, prohibited market practices, consumer protection violations, investment fraud, or falsification of corporate documentation. Depending on the specific factual circumstances, the phenomenon under analysis may be classified as unethical conduct, give rise to tortious liability, administrative responsibility, or, in certain cases, trigger a response of a criminal-law nature. This very multiplicity of applicable liability regimes constitutes a particularly valuable and analytically compelling field for doctrinal legal inquiry.

Within the scholarly doctrine, greenwashing is conventionally distinguished across several typologies, notably encompassing corporate greenwashing (manipulation of organisational image), product greenwashing (deception regarding product attributes), greenwashing by omission (selective non-disclosure of detrimental information), claim greenwashing (false verbal assertions), and executional greenwashing (misleading visual, graphical, or auditory representations used to create a false ecological perception).

Against this background, the objective of this article is to examine WC-GW through the combined lenses of white-collar crime, corporate green crime, and green criminology, with particular emphasis on socio-technical, neutralisation, victimological, and regulatory mechanisms. The analysis is based on secondary sources, including reports by international organisations, academic studies, legislative acts, and the media-legal discourse surrounding greenwashing in the renewable energy sector.

## Research Methodology

The study of WC-GW requires a methodological framework that integrates criminological, comparative-legal, and socio-media discourse perspectives. The phenomenon is inherently covert, often situated within the "grey zone" between legality and ethics, and operates through language, symbolism, and corporate imagery. This research relied on secondary data analysis and legal and media discourse examination, drawing upon reports by non-governmental organisations, regulatory decisions, academic studies, and press or marketing materials from energy companies in Poland and Central and Eastern Europe. Triangulation of sources was employed to enhance validity and strengthen interpretative reliability.

The qualitative design combined content analysis, critical discourse analysis (CDA), and case study methods. Content analysis identified recurrent linguistic patterns in corporate communication, including references to climate neutrality, the green transition, and zero emissions, while CDA enabled the reconstruction of narratives legitimising environmentally harmful economic practices. The comparative dimension revealed recurring corporate strategies, such as selective disclosure of emission data, symbolic ecological investments, and the manipulative use of legal terminology associated with the green transition (e.g., carbon footprint).

As the study is based exclusively on secondary materials, it cannot fully capture internal decision-making processes or offender intent. Future research might employ in-depth interviews with corporate insiders to address this limitation. While discourse analysis is interpretative rather than causal, criminological inquiry should extend beyond quantifying financial harm to reconstructing offender rationalities and mechanisms of justification.

The strength of this methodological approach lies in its capacity to reconstruct the narrative architectures and perceptual mechanisms underpinning green marketing and corporate communication. However, qualitative methods preclude statistical generalisation; their findings remain context-dependent and contingent upon case selection. Ultimately, this hybrid methodological strategy, situated at the intersection of criminology, law, and communication studies, illuminates how informational manipulation functions as an instrument of corporate environmental deviance.

## Characteristics of the Phenomenon

The phenomenon of information asymmetry constitutes a central concept in the analysis of economic crime, including contemporary forms of white-collar crime, greenwashing, and investment fraud. Its essence lies in the unequal access of market participants to information, creating structural conditions conducive to abuse, manipulation, and cognitive exploitation. This mechanism applies not only in economics but also in criminological analysis, where the offender's informational advantage over the victim becomes a tool of domination and control. In this context, information asymmetry operates as a mechanism enabling offenders to manipulate public narratives. The strategic use of expert language and the appearance of scientific legitimacy transforms technical discourse into an instrument of deception and a component of criminal strategy. Access to information, technical jargon, and the symbolic power embedded in professional authority allows perpetrators to construct persuasive narratives that induce cognitive dependency among audiences. Such communication often employs ritualised ecological vocabulary with blurred definitions, serving as a discursive foundation for legitimacy. Visual semiotics further reinforces this effect, while the prevalence of perceptual micro-communities (informational bubbles) diminishes recipients' capacity for critical reflection[15].

Combined with professional specialisation and accumulated expertise, asymmetry creates a cognitive veil that facilitates the concealment of unethical or criminal practices under a façade of professionalism and legality. Market actors naturally strive for informational monopoly, which in the digital era assumes the form of technological inequality, unequal access to data, algorithms, and analytic tools. This disparity underpins complex systems of manipulation, from microtargeted advertising to automated disinformation campaigns. In criminological discourse, the concept of interpretative asymmetry also emerges, denoting the disparity in the ability to decode and critically evaluate institutional or media messages. Even when recipients have formal access to information, they often lack the epistemic tools necessary for verification.

Within the framework of communicative action theory, such deep intrusion into the autonomy of will renders consumer consent merely illusory, as it is not based on genuine understanding. Consequently, the asymmetry of knowledge and information may necessitate institutional intervention, both legal and extra-legal, to protect the weaker party in market relations[16]. From a criminological standpoint, information asymmetry thus represents one of the structural mechanisms reproducing economic crime, enabling concealment of irregularities, obstructing detection, and reinforcing power imbalances among participants.

The energy market, including the renewable energy sector (RES), is by no means free from these dynamics of cognitive inequality[17]. This domain is dominated by actors with specialised technological knowledge, complex financial architectures, and exclusive access to data inaccessible to consumers or even regulators. Control over information, rendering oversight largely symbolic or ritualistic, facilitates, and at times enables, criminal activity in regulated sectors. Within RES industries, this manifests in communication strategies whereby firms declare compliance with sustainability principles while concealing or obscuring genuine data concerning carbon footprints or environmental impacts. This green informational asymmetry empowers corporations to construct selective narratives that weaken institutional and social reactions to exploitative practices. Knowledge itself (technical, environmental, or regulatory) becomes a tool of power, as seen in corporate marketing campaigns

[15] See C. Sunstein, *#Republic: Divided Democracy in the Age of Social Media*, Princeton 2017, p. 76.

[16] See M. Levi, *The Organisation of Serious Crimes for Gain*, „British Journal of Criminology" 2008, Vol. 48, No. 3, pp. 321-339.

[17] In this context, it is worth referring to the so-called photovoltaic frauds examined within the framework of the WCC-TRAJECT project. Perpetrators of such offences often seek not only financial gain but also the acquisition of victims' personal data.

that rely on selective data disclosure, contextual omission, and methodological obfuscation to shape collective perception. Low levels of institutional transparency and close ties between business and politics exacerbate these distortions. Systemic manipulation thereby becomes a mechanism sustaining informational asymmetry and legitimising the dominance of actors privileged in access to ecological discourse. Greenwashing, viewed through this lens, constitutes a persuasive and disinformative operation, centrally concerned with the construction of perceptual illusions of environmental responsibility.

Existing research on ecological information manipulation underscores the need for further in-depth studies conceptualising the phenomenon as a systemic form of white-collar, corporate, or state-corporate crime. The literature to date predominantly addresses marketing, management, and non-financial reporting-focusing on the impact of environmental communication, reputational risks, and the reliability of CSR/ESG audits. From legal and policy perspectives, supranational and domestic regulatory instruments (e.g., advertising, consumer protection, and environmental disclosure frameworks) occupy a central position. Yet, the symbolic and linguistic nature of manipulation, the opacity of auditing mechanisms, and the absence of transparent verification procedures foster exploitative market practices. Further empirical inquiry should address offenders' decision-making and rationalisation processes, as well as victimological perspectives, including phenomena such as the climate apathy effect, secondary victimisation, or public disillusionment. Equally crucial are studies considering the rapid evolution of communication technologies and the regional context of Central and Eastern Europe, where structural conditions (e.g. state ownership, hybrid energy systems, and limited diversification) intensify the risk of discursive instrumentalisation.

The rise of artificial intelligence, deepfake technologies, and generative tools fundamentally transforms the landscape of environmental disinformation. Despite the vulnerability of sustainable investment markets to image-based manipulation, systematic analyses of how these technologies reinforce the perceived credibility of false environmental claims remain scarce. Such tools enable precision deception tailoring persuasive falsehoods to specific audiences, including institutional investors, policymakers, and ecologically sensitive consumers. Generative manipulation of environmental information redefines classical boundaries of economic crime. Locally, factors such as the involvement of state-owned enterprises, politically connected entities, and regional market structures create fertile ground for the instrumentalisation of ecological narratives. In this sense, manipulative communication within the RES sector may be understood as an expression of post-transformational economic crime, shaped by the intersection of systemic demoralisation and informational inequality.

Future research should address existing gaps concerning the effectiveness of environmental audits, the institutional credibility of ecological reporting, and the transnational dimensions of the phenomenon, including the legitimisation of pseudo-green investments. Filling these gaps holds both theoretical and practical significance enhancing the conceptual framework of white-collar crime and informing the design of more effective control and prevention mechanisms. Interdisciplinary projects combining information criminology, environmental psychology, and digital communication studies employing qualitative interviews (with managers, auditors, regulators), longitudinal content analysis, network mapping, and experimental research on public reactions to exposure of manipulation may prove particularly valuable. Ultimately, greenwashing exemplifies systemic demoralisation, where actors with substantial economic and social capital exploit market dominance to perpetrate deception under the guise of environmental virtue.

## Modus Operandi of Offenders

Information asymmetry may extend beyond the conventional relations between market participants. In interactions with powerful corporate entities, even the state may find itself in an informationally subordinate position, with limited access to the data necessary for effective supervision. As a result, regulatory actions frequently acquire a reactive rather than preventive character, and their effectiveness depends largely on the detection of irregularities by non-governmental organisations or investigative media. Regardless of the actual environmental impact of their operations or the extent of technological innovations introduced to reduce their ecological footprint, corporate actors readily align themselves with consumer trends[18]. They exploit evocative imagery, linguistic cues, and visual symbols associated with nature and sustainability, thereby constructing persuasive narratives of environmental responsibility[19]. An analysis of case studies from Poland, Romania and Hungary demonstrates that common practices include the presentation of incomplete data on product life cycles and references to non-existent or valueless certificates and audits[20]. This indicates that marketing strategies are often grounded in superficial

[18] See E. Mazur-Wierzbicka, *Greenwashing – consumer's perspective*, „Scientific Papers of Silesian University of Technology Organization and Management Series" 2023, No. 164, pp. 283-297.

[19] See J. Karwowska, *Opakowanie zgodne z kryteriami środowiskowymi w komunikacji marketingowej przedsiębiorstw*, Warszawa 2021, p. 58.

[20] The proliferation and incoherence of private eco-certification schemes were intended to be addressed by the Green Claims Directive. This legislative proposal also sought to prohibit the use of generic expressions such as "eco-friendly" or "carbon neutral" unless supported by clear and scientifically substantiated evidence. Conceived as a complementary measure to the existing supranational framework combating the manipulation of environmental information, the Directive was ultimately withdrawn by the European Commission following the unequivocally negative position adopted

ecological attributes, such as the use of environmentally themed packaging, even where the product itself entails a significant environmental burden[21]. Under such circumstances, even bottled water, regardless of whether it is sold in recyclable or reusable containers, can hardly be regarded as environmentally neutral. Similarly, given the current state of technological advancement, the manufacture of any high-performance wind turbine, photovoltaic cell, or energy storage facility cannot be entirely zero-emission. However, this fact does not alter the reality that the overall environmental footprint of different technological solutions can be diametrically opposed, and the misrepresentation of this footprint constitutes a key element of WC-GW.

Corporations often attempt to legitimise their claims through references to carbon offsetting, yet the current structure of the voluntary carbon market favours actors willing to manipulate standards and exploit loopholes in the absence of stringent oversight. In the renewable energy sector, technological innovation has not yet eliminated the environmental costs associated with production, including emissions and the problem of recycling post-operational materials. In Poland, the Office of Competition and Consumer Protection (UOKiK) has repeatedly intervened in cases of misleading environmental marketing[22]. For instance, in 2024 one of Europe's largest online fashion marketplaces was compelled to remove deceptive sustainability icons displayed alongside products. In July 2025, the President of UOKiK charged four major corporate actors with manipulating information concerning the environmental impact of their services, issuing a total of fifteen accusations of consumer deception. The contested claims included phrases such as "green fleet", "zero emission", "eco deliveries", "for the planet", and "environmentally neutral", all of which were based on incomplete or selective data referring to only

by the European People's Party. Proponents of this political pressure argued that the requirement for prior verification of every environmental claim would result in excessive bureaucratisation of the single market and place a disproportionate administrative burden on small and medium-sized enterprises. Within the transnational regulatory context, the most significant instruments therefore remain Directive (EU) 2024/825 of the European Parliament and of the Council of 28 February 2024, together with Directive (EU) 2022/2464 of 14 December 2022. Furthermore, Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024, establishing a framework for ecodesign requirements for sustainable products, constitutes an essential complementary measure in this evolving legislative architecture.

[21] See S. de Freitas Netto, M.F. Falcão Sobral, A.R. Bezerra Ribeiro, G.R. da Luz Soares, *Concepts and forms of greenwashing: a systematic review*, „Environmental Sciences Europe" 2020, Vol. 32, No. 19, DOI: 10.1186/s12302-020-0300-3.

[22] At the international level, from the perspective of consumer protection, the manipulation of information of environmental relevance has become the subject of systematic analysis and coordinated enforcement activities conducted, inter alia, within the framework of the International Consumer Protection and Enforcement Network (ICPEN), which brings together consumer protection authorities from over 70 countries. The network's activities focus in particular on the identification and prevention of cross-border misleading market practices, including corporate greenwashing strategies.

limited aspects of their business activity. Similarly, messages such as "we plant trees" relied on conditions that were not disclosed clearly to consumers, undermining their ability to make informed and autonomous purchasing decisions. In some instances, these communicative strategies exerted psychological pressure on consumers by creating an expectation that failing to select the "green" option was socially undesirable. This phenomenon, often termed eco-shaming, fosters guilt and conformity even when the purportedly sustainable option yields negligible or unverifiable environmental benefits. Consumers were also misled as to the actual scope and scale of corporate ecological initiatives undertaken within specific marketing campaigns. Regulatory authorities have repeatedly emphasised that claims concerning the environmental performance of goods or services must refer to the entire life cycle of the product. Suggesting ecological value while the production process remains resource-intensive or carbon-heavy constitutes a misrepresentation.

In the Polish context, the example of electric vehicle fleets is particularly instructive: under current conditions, it is impossible to operate them in a genuinely zero-emission manner if charging relies on publicly available electricity grids still powered predominantly by fossil fuels. A common technique involves invoking future environmental achievements, hypothetical and temporally distant commitments without clear milestones or implementation frameworks, to justify present marketing claims. Another recurring pattern, referred to as green scaling, consists in the disproportionate promotion of marginal ecological investments, such as small photovoltaic installations, representing only a negligible share of the corporation's actual operations but presented as evidence of comprehensive transformation. As in many other forms of economic pathology, WC-GW operates through the calculated use of expertise, insider knowledge, and institutional inertia. Offenders exploit regulatory ambiguities, interpretative uncertainty, and the limited capacity of oversight institutions, maintaining the formal appearance of legality. Ideally, corporate actors should be able to substantiate their claims through verifiable documentation, environmental certificates, reports, laboratory analyses, or assessments aligned with current scientific standards. Strengthening such evidentiary standards may foster genuine cooperation between research institutions and the private sector, contributing to the development of more transparent and accountable environmental communication. Perpetrators frequently exploit well-documented cognitive mechanisms, particularly the halo effect and the availability heuristic. Marketing images of wind turbines, green leaves or pristine rivers reinforce positive associations and enhance perceived ecological credibility. At the core of these strategies lies organisational self-presentation, a process of constructing a socially desirable identity anchored in expectations of responsibility and sustainability. The academic literature identifies a range of recurring communicative patterns integral to these practices, including green labelling (assigning carbon-neutral or zero-emission labels to products with a significant life-cycle footprint), selective disclosure (emphasising favourable data while omitting social or ecological costs), image transfer (appropriating the rhetoric of sustainability to deflect scrutiny from harmful operations), token projects (symbolic, low-impact ecological initiatives), the bright-future strategy (anchoring marketing claims in aspirational but unsubstantiated long-term plans), safety in numbers (overwhelming recipients with unverifiable data to create an impression of scientific legitimacy), use of absolute claims, green scaling, and carbon-offsetting fraud[23]. The latter encompass the construction of illusory emission reductions through offset projects of limited or unverifiable effectiveness, alongside the creative calculation of actual emissions, functioning as an element of broader creative environmental information management. These mechanisms operate within conditions of pronounced information asymmetry and enable corporate actors to present their activities as environmentally beneficial despite the absence of measurable or substantive ecological outcomes.

A particularly concerning development is regulatory greenwashing, whereby public institutions or state-owned energy enterprises employ the rhetoric of sustainable development to legitimise the continuation of high-emission projects[24]. Doubts of this kind have emerged, for example, in relation to the use of funds from the Just Transition Fund in Romania.

These findings reveal a complex and multi-layered modus operandi characteristic of contemporary environmental offenders. Through the combination of discursive manipulation, regulatory opportunism, and cognitive persuasion, they normalise deception as an element of competitive advantage. Addressing this phenomenon requires a genuinely integrated criminological and regulatory approach, one that recognises greenwashing as a distinct form of systemic white-collar environmental pathology, demanding equally systemic responses at the legal, institutional, and societal levels.

## Victimological Perspective

In the case of greenwashing, victimisation assumes a diffuse and multilayered structure, in which the boundaries between offender and victim become increasingly blurred. Within this framework of collective victimisation, the victims of corporate misconduct, including WC-GW, may encompass entire communities. In

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23 See S. Böhm, M.C. Misoczky, S. Moog, *Greening capitalism? A Marxist critique of carbon markets*, „Organization Studies" 2012, Vol. 33, No. 11, pp. 1617-1638.

24 T. Harlan, *Green Development or Greenwashing? A Political Ecology Perspective on China's Green Belt and Road*, „Eurasian Geography and Economics" 2021, Vol. 62, No. 2, pp. 202-226.

this sense, the phenomenon aligns both cognitively and morally with the category of secondary victims of corporate crime. Individuals who come to realise that they have been deceived experience a form of cognitive dissonance between the declared and actual state of affairs, leading to a profound loss of trust in institutional authority. The foundation of such victimisation lies in epistemic asymmetry, the lack of tools to verify environmental claims that function as simulacra of credibility. Its consequence is a decline in the willingness to participate in pro-environmental initiatives, rooted in both moral disappointment and a sense of instrumental exploitation. The structure of this pathology implies that media coverage and social reactions to corporate misconduct may paradoxically reinforce the victimisation process itself. As moral and cognitive fatigue accumulates, citizens become less inclined to engage in the ecological transition. From the perspective of persuasive influence, the ideal victim is characterised by a strong sense of moral duty combined with low ecological literacy and limited critical capacity. Greenwashing does not affect all social groups equally.

The victimisation dynamics of WC-GW intersect with broader structural inequalities embedded in social and informational hierarchies. Individuals with lower levels of digital competence and reduced access to reliable information are particularly vulnerable to manipulative environmental narratives[25]. The manipulative communication itself, based on issues where an actor overstates its commitment to social responsibility and ethical practices, is referred to in the literature as bluewashing or socialwashing. Such behaviours may therefore be interpreted as diverse manifestations of the same underlying pathology. In the context of Central and Eastern Europe, including Poland, this process is further complicated by the importation of Western ecological narratives that may be poorly adapted to local socio-economic realities. Such dissonance gives rise to symbolic victimisation, wherein externally generated discourses are internalised without reference to indigenous contexts or needs. The internalisation of a distorted image of reality constitutes an additional source of cognitive victimisation.

As the literature emphasises, under conditions of epistemic uncertainty individuals rely on heuristics that simplify decision-making processes. In the case of environmental manipulation, particularly relevant are the affective heuristic (the tendency to evaluate information based on emotional responses), the availability heuristic (overestimating the prevalence of "green" practices due to their media exposure), and the authority heuristic (accepting information as true when it orig-

[25] See P. Seele, L. Gatti, *Greenwashing Revisited: In Search for a Typology and Accusation-based Definition Incorporating Legitimacy Strategies*, „Business Strategy and the Environment" 2017, Vol. 26, No. 2, p. 239-252.

inates from scientific institutions, governmental bodies, or well-known brands)[26]. These psychological mechanisms make recipients susceptible to persuasive ecological messages, even when they lack factual grounding.

In summary, the victimology of WC-GW encompasses several interrelated dimensions. The cognitive dimension involves depriving recipients of the real ability to assess the truthfulness of ecological information, producing a form of false environmental consciousness. The economic dimension relates to illusory environmental benefits or deceptive claims of efficiency. The emotional dimension manifests as helplessness, disillusionment, and moral apathy, while the environmental dimension concerns the reinforcement of harmful practices and the delay of remedial actions. Between the author of the manipulative message and its recipient, a form of symbiotic victimisation arises, referring to the co-participation of both parties in reproducing the ecological discourse and sustaining the illusion of sustainability.

In the author's view, white-collar crimes should not be classified as victimless phenomena[27]. Research on corporate and economic crime suggests that victims of financial fraud may experience a range of emotional reactions that in some respects resemble those reported by victims of conventional crime, including feelings of shock, shame, loss of control, and a sense of powerlessness[28]. From a victimological perspective, particularly adverse consequences of the pathology discussed here include the erosion of trust in state institutions and the legal system in general, a perceived violation of individual autonomy, and mechanisms of victim blaming that further deepen secondary victimisation. In the environmental dimension, including reference to non-human victims, such practices negatively affect society's restorative and corrective capacity by undermining collective engagement in pro-environmental behaviour and weakening normative support for environmental protection. This constitutes another victimological paradox of the phenomenon, namely that the victim's good faith and pro-social or pro-environmental motivations are instrumentally exploited, thereby reinforcing processes that are internalised by the individual as detrimental to their own interests and values.

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[26] D. Kahneman, *Thinking, Fast and Slow*, New York 2011.

[27] See L. Ganzini, B. McFarland & J. Bloom, *Victims of fraud: Comparing victims of white collar and violent crime*, „Journal of the American Academy of Psychiatry and the Law Online" 1990, No. 18(1), pp. 55-63; M. Button, C. Lewis & J. Tapley, *Not a victimless crime: The impact of fraud on individual victims and their families*, „Security Journal" 2014, No. 27(1), pp. 36-54; C. Cross, K. Richards & R.G. Smith, *The reporting experiences and support needs of victims of online fraud*, „Trends and issues in crime and criminal justice" 2016, No. 518, pp. 1-14; R.G. Brody & F.S. Perri, *Fraud detection suicide: the dark side of white-collar crime*, „Journal of Financial Crime" 2016, No. 23(4), pp. 786-797.

[28] Findings from the WCC-TRAJECT project suggest that the dark figure of investment fraud in Poland involving organised Russian-speaking criminal groups may be shaped by several interrelated factors, including victims' feelings of shame, limited confidence in the likelihood of recovering lost financial assets, and concerns about potential retaliation by offenders.

The prevention of victimisation in the context of greenwashing should therefore adopt a cognitive and educational character, focusing on developing cognitive resilience and the capacity for critical evaluation of ecological information. From a criminological standpoint, educational initiatives can be viewed as a form of primary prevention, reducing the risk of victimisation through the enhancement of public awareness and analytical competence. At the same time, the promotion of sustainability literacy, the ability to assess the actual environmental outcomes of corporate actions, is indispensable. Equally important is secondary prevention, involving prompt administrative response and the exposure of misleading public claims. Non-governmental organisations play a crucial role in this regard, conducting systematic monitoring of corporate environmental communication, particularly within the energy sector. In this sense, the victim or potential victim emerges as an active social actor capable of co-creating preventive mechanisms and contributing to the collective resilience of ecological communication systems.

## The Phenomenon in the Light of Selected Criminological Theories

The phenomenon of corporate and economic crime cannot be analysed solely through the prism of legal doctrine but requires an interdisciplinary perspective that integrates social structure, the offender's position within institutional hierarchies, and the normative frameworks legitimising deviant practices, while also incorporating a victimological dimension. Within this context, WC-GW constitutes a distinctive form of hidden criminality, whose social harm derives not only from individual acts of legal violation but also from its long-term erosion of public trust and contribution to systemic disinformation. This phenomenon often escapes social perception, as offenders skilfully operate in the interstices between truth and falsehood, exploiting both informational asymmetry and their own advantage in knowledge, expertise, and social status. The language of corporate communication plays a symbolic and legitimising role: it enables the rationalisation of unethical and unlawful conduct, framing it as part of an ostensibly responsible communication strategy or brand enhancement effort. When the offender operates within a larger corporate structure, whose immediate interests are served by such practices, internal moral restraints are easily suspended. Within the persistent tension between profit maximisation and social responsibility, exaggerated or false ecological communication may thus become a competitive market standard.

From the standpoint of green criminology, as well as related subfields such as climate criminology and blue criminology, manipulative environmental communication represents not merely a reputational distortion but a tangible form of social and environmental harm, even when it does not violate penal norms. It should be emphasised that the majority of ecological harm observed globally arises from non-criminalised behaviours. In this sense, all social actors contribute to environmental degradation through the ecological footprint of daily existence. The harm caused by manipulation is primarily symbolic: it does not directly pollute the environment but undermines the implementation of environmental policies and weakens public support for sustainable transformation. Within this distorted market, secondary victimisation occurs when consumers and communities bear higher costs of transition without achieving its declared benefits. In such a configuration, greenwashing within the renewable energy sector can also impede broader environmental initiatives, distorting the logic of ecological governance. The foundation of corporate crime lies in the abuse of trust, in greenwashing, this trust, placed in science, regulators, experts, and media, becomes a key resource subject to exploitation. Further aligning with this criminological paradigm, greenwashing may be conceptualised as a form of "blocking crime", insofar as it obstructs genuine environmental progress by delaying or displacing effective ecological action. Corporations that publicly declare their commitment to climate protection but fail to implement corresponding measures actively hinder other public and private actors from adopting effective solutions.

From a systems theory perspective, WC-GW creates legitimising mechanisms that sustain the appearance of ecological responsibility while perpetuating exploitative structures. This process gives rise to what may be described as institutionalised hypocrisy, wherein the divergence between declared commitments and actual practices becomes a defining feature of organisational conduct.

Unlike traditional financial fraud, the financial benefit derived from such behaviour is neither immediate nor individual but rather long-term and diffuse, often taking the form of inflated value attributed to goods and services associated with non-existent ecological attributes. In this context, one may also consider unwarranted or dubious public funding awarded under the guise of sustainability.

Within the renewable energy sector, this dynamic manifests through environmental policy capture, a situation in which large corporations shape environmental policies to preserve their economic dominance while minimising regulatory risks. In this model, coal-dependent energy companies may successfully delay the implementation of green policies, all the while promoting ostensibly sustainable investments. Such behaviour erodes collective efficacy, the community's shared capacity to act for the common good, and fosters ecological cynicism. Corporations may also exploit mechanisms designed to support renewable energy as tools for reinforcing market power and consolidating dominance.

Theoretically, WC-GW can be effectively interpreted through the rational choice theory, according to which offenders weigh potential gains against the risks of detection and sanction[29]. Given that the risk of punishment is minimal and potential reputational or financial benefits are significant, greenwashing emerges not as a pathological deviation but as a systemic strategy of corporate risk management, embedded in the structural logic of corporate capitalism. Decisions to employ manipulative environmental communication are frequently made collectively, leading to the diffusion of responsibility within organisational hierarchies. Corporate pathologies thus operate as adaptive strategies within high-pressure market environments[30]. In this sense, greenwashing represents a modus operandi of renewable energy actors who strategically deploy ecological rhetoric and symbolism to secure reputational advantages while continuing high-emission practices. Deviant behaviours become entrenched when organisations reward effectiveness regardless of ethical constraints. Success itself functions as a form of positive reinforcement, including deviant success.

Empirical evidence from Central and Eastern Europe suggests that greenwashing frequently operates as a form of adaptive deviance, enabling corporations to reconcile conflicting regulatory, market, and reputational pressures. The practice thereby exemplifies how systemic contradictions within the sustainability economy can transform deceptive communication into an institutionalised norm of survival within the contemporary corporate order.

## Remarks on Regulatory Policy

In the context of the growing number of environmentally less burdensome investments and the increasingly intensive promotional activity of energy companies, WC-GW within the renewable energy sector must be regarded as a contemporary challenge for regulatory policy. Systems that possess only a superficial capacity to verify corporate environmental claims are inevitably exposed to erosion of legitimacy. In the Polish legal framework, no mechanism of pre-approval, based on the decisions of accredited, independent experts, has yet been introduced. Consequently, it must be concluded that the current regulatory system lacks a coherent set of instruments capable of ensuring reliable monitoring and sanctioning of misleading environmental communication. An effective regulatory architecture would need to address all instances of unfair competition before they exert a market impact. Yet

[29] R.V. Clarke, D.B. Cornish, *Modeling Offenders' Decisions: A Framework for Research and Policy*, „Crime and Justice" 1985, Vol. 6, pp. 147-185.

[30] L. Snider, *The Sociology of Corporate Crime: An Obituary: (Or: Whose Knowledge Claims have Legs?)*, „Theoretical Criminology" 2000, Vol. 4, No. 2, pp. 169-206.

even assuming institutional will and professional competence, the effectiveness of control authorities will always remain a function of the resources and enforcement powers at their disposal. Given this limitation, it is essential to build relational mechanisms linking law enforcement, inspection institutions, and the third sector, particularly consumer and environmental organisations. Within the renewable energy sector, the absence of real, immediate, and dissuasive sanctions for informational abuse contributes to the perpetuation of pathological communication patterns. In regulatory areas heavily dependent on subsidies and public support mechanisms, such as those embedded in the paradigm of green transition there exists a significant risk of compliance formalism. This term refers to situations in which applicants focus on superficial adherence to regulatory requirements while neglecting their axiological objectives. The structure of the grant system incentivises formal compliance (obtaining certificates, preparing ESG reports, and producing environmental impact assessments) rather than achieving genuine ecological outcomes. In the context of corporate and economic crime, such systemic deviation may simultaneously serve as a technique of neutralisation employed by offenders. Manipulation of environmental information can be viewed as an extreme manifestation of this mechanism, wherein corporate actors exhibit full procedural compliance while in practice engaging in activities that violate legally protected interests and mislead the public. In a system burdened by this pathology, one may observe the emergence of a compliance economy, an environment in which the principal value becomes not environmental performance but the ability to demonstrate formal conformity. Beyond creating fertile ground for WC-GW, compliance formalism reinforces informational asymmetry and weakens regulatory legitimacy. Within the renewable energy sector, this leads to a condition in which regulation becomes autotelic, serving to legitimise the *status quo* rather than to transform market practices. In the context of white-collar crime, particular risks arise when regulatory and control institutions are captured by the very actors they are intended to oversee. In the energy sector, such capture may manifest through corruption, illicit lobbying, personal and capital interlocks, or the appointment of industry-linked experts to key advisory positions. The preventive function of law diminishes in the face of phenomena that are dispersed and technically complex. In cases involving misleading environmental declarations, harm often assumes a collective or systemic character, undermining the broader credibility of environmental governance. In markets characterised by significant state ownership, green marketing may further serve as a tool of strategic legitimation, rather than as an instrument of genuine decarbonisation.

One potential response to such corporate pathologies lies in mechanisms of social reputational control. Among these are so-called shaming lists – public registries of companies, institutions, or individuals that have violated ethical standards, labour laws, environmental protection norms, or the principles of fair trade. The declared objective, at least at the theoretical level, is not only general prevention but also social reintegration of the offender. These instruments thus serve a dual function: stigmatising and restorative. The publication of entities engaging in informational manipulation operates as a symbolic form of sanction, combining preventive and educational effects. This type of symbolic penalty may also exert indirect financial consequences through reputational loss. In this context, CSR and ESG reports can serve as mechanisms of public pressure, reinforcing accountability by exposing inconsistencies between declared and actual environmental performance.

## Conclusion

The utilisation of algorithmically assisted or fully automated content-generation tools for the design, formatting, scaling, and dissemination of advertising and informational campaigns based on, or incorporating, manipulated environmental content fundamentally redefines the classical boundaries of economic crime. Algorithmic green deception encompasses the automation of perceptual and emotional manipulation on a scale hitherto unattainable through human means. Crucially, such messages may be behaviourally personalised, presenting distinct narratives to different audience segments, each calibrated to their values, beliefs, and ecological sensitivities. Behavioural profiling enhances the persuasive effectiveness of manipulation while simultaneously obscuring its detection. In this context, digital environmental disinformation emerges not merely as a form of market fraud, but as a threat to the integrity of democratic systems and the legitimacy of climate policy. What thus becomes evident is an evolutionary phase of white-collar crime in which information functions both as the instrument and the object of offending. This dual function erodes the foundations of social trust, a sine qua non condition for the effectiveness of environmental governance. Regardless of the chosen regulatory model, the proportionality and effectiveness of sanctions for the use of manipulated environmental information must be calibrated such that they cannot be internalised by corporate actors as a mere cost of doing business.

From a criminological perspective, reducing informational asymmetry, understood here as the capacity to shape social reality through control over informational flows, requires not only legal instruments but also the strengthening of social oversight mechanisms. This includes expanding access to environmental data, ensuring transparency of decision-making processes, and fostering public competence in critically interpreting corporate communication.

The empirical analysis of cases from Poland and Central and Eastern Europe permits several general conclusions. Firstly, greenwashing in this region frequently assumes an institutional character, often resulting from state policy or the public financing of investments that only nominally pursue sustainability objectives. Secondly, this phenomenon exhibits features that are characteristic of white-collar crime. These include, in particular, the absence of direct violence, a diffuse pattern of victimisation and a specific modus operandi employed by the perpetrators. Taken together, these factors create substantial difficulties for law enforcement and regulatory authorities *sensu largo* in identifying and detecting such practices, as well as in holding both collective and individual actors accountable, including through administrative sanctions and reputational mechanisms. Regardless of its form, the institutional response should be sufficiently dissuasive, also in social terms, to ensure that it cannot be rationalised or factored in as a routine cost of conducting economic activity. Thirdly, the findings corroborate the hypothesis that WC-GW constitutes a form of organised economic pathology, in which the abuse of environmental symbols and information serves to obtain undue financial and reputational advantages.

From the vantage point of critical victimology, greenwashing exposes the structural nature of contemporary relations between capital and social responsibility. Within this framework, corporate green criminology has emerged as a research stream exploring the intersections of climate policy, energy markets, and economic power structures. What we observe, therefore, is a form of victimisation without a classical victim, yet of profound social and moral consequence. The socio-technical and psychological dimensions of WC-GW reveal a morally rationalised manipulation, rooted in the exploitation of emotions, symbols, and cognitive heuristics, whose consequences extend far beyond the marketplace, affecting the ecological identity of contemporary societies. The long-term consequences of dishonest practices employed by actors engaging in WC-GW may include consumer discouragement from choosing products and services that are genuinely more environmentally beneficial, the entrenchment of high-emission economic models, delays in energy transition processes, erosion of trust in climate policies, and the weakening of the legitimacy of environmental regulation. In its most extreme form, WC-GW may contribute to the reversal of socially desirable pro-environmental trends, of particular relevance from the perspective of green criminology, upon which perpetrators strategically capitalise.

From an economic perspective, greenwashing may be interpreted as a fraudulent signalling strategy, wherein information ceases to serve as a medium of transparency and instead becomes a smokescreen concealing the absence of genuine environmental commitment. In this context, the analysed pathology unquestionably undermines constitutional and universal values of a fundamental nature. These include, in particular, the integrity of economic transactions, the right to accurate and truthful information, the principle of sustainable development, the principle of citizens' trust in the state and the legal order it establishes, equality before the law, and the protection of fair competition. The absence of an effective regulatory or reputational response to greenwashing practices contributes to the entrenchment of detrimental market behaviours and the normalisation of conduct that is only ostensibly aligned with environmental policy objectives. At the same time, this phenomenon exerts a discouraging effect on honest and responsible undertakings that invest in genuinely pro-environmental solutions, often at considerable cost, thereby disincentivising further engagement in environmentally sustainable business practices.

The foregoing analysis of WC-GW underscores its hybrid character positioned at the intersection of economic, environmental, and informational pathology. In the renewable energy sector, modern greenwashing represents not only a form of market manipulation but also a violation of public trust, which constitutes a cornerstone of both social order and sustainable development. In this respect, it embodies a contemporary modality of corporate crime, whose repercussions transcend the financial domain and penetrate the social and moral fabric of the community.

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