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# GREEN MARKETING MIX STRATEGY IN THE PUBLIC SECTOR TO SUPPORT THE NET ZERO EMISSION (NZE) 2060 TARGET (A CASE STUDY OF PT PERUSAHAAN GAS NEGARA TBK., LAMPUNG AREA)

**Dewi Balkis Chan [1], Intan Fitri Meutia [2], Arif Sugiono [3], Dian Kagungan [4]**

[1,2,3,4] Magister Ilmu Administrasi, Fakultas Ilmu Sosial Dan Ilmu Politik, Universitas Lampung,
e-mail : dewibalkischan8@gmail.com[1],
intan.fitri@fisip.unila.ac.id[2],
arif.sugiono@fisip.unila.ac.id [3],
dian.kagungan@fisip.unila.ac.id[4]

Penulis Korespondensi. Dewi Balkis Chan
e-mail : dewibalkischan8@gmail.com

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**ABSTRACT**

**Objective** The transition to Net Zero Emission (NZE) 2060 requires strategic transformation in the energy sector, particularly through sustainable marketing practices in public sector entities and state-owned enterprises. This study aims to analyze the implementation of the *green marketing mix* (7P) strategy by PT Perusahaan Gas Negara (PGN) Tbk Area Lampung and its implications for supporting the national NZE 2060 target.

**Research Method.** A qualitative descriptive approach was employed, using in-depth interviews, observation, and document analysis. Data were analyzed using Miles and Huberman's interactive model. Informants included PGN staff from sales, customer management, and operations, as well as small business (UMKM) customers.

**Results.** PGN Area Lampung has implemented all seven elements of the *green marketing mix*, but the strategy predominantly emphasizes economic efficiency—cost savings, safety, and operational convenience—rather than explicit environmental values. The environmental benefits of natural gas as a lower-carbon transition fuel remain uncommunicated to customers, and staff lack training in sustainability messaging. The existing infrastructure and processes contribute to emission reductions, yet full potential for behavioral change toward NZE 2060 is constrained by centralized pricing policies and limited promotional focus on environmental narratives.

**Conclusion.** The study concludes that while the current *green marketing mix* supports emission reductions through fuel switching, achieving the NZE 2060 target requires a shift from functional green positioning to a sustainability-led approach. Recommendations include integrating environmental messaging into promotions, equipping staff as green ambassadors, and advocating for policy reforms that enable localized green pricing incentives.



## 1. INTRODUCTION

Climate change has emerged as one of the most significant global issues, fundamentally threatening human survival and the stability of the Earth's ecosystem (Andrian, Wahyudi, &

Leny, 2024). The escalating concentration of greenhouse gas (GHG) emissions in the atmosphere has been unequivocally linked to rising global temperatures, leading to a cascade of environmental and socio-economic crises (Filonchyk, Peterson, Zhang, Hurynovich, & He, 2024). As a member of the global community, Indonesia has acknowledged this urgency and is fully committed to mitigating climate change. The Indonesian government has formalized its dedication to reducing carbon emissions, with a strategic target of achieving Net Zero Emission (NZE) by 2060. This commitment is not merely a political declaration but has been translated into a comprehensive national energy policy framework. Based on the work report of the Ministry of Energy and Mineral Resources of the Republic of Indonesia, these policies form the strategic foundation for the nation's energy and industrial sectors to transition from conventional fossil fuels to cleaner, more sustainable energy sources (Kementerian Energi dan Sumber Daya Mineral Republik Indonesia, 2023).

The push for a global energy transition is paramount, as the energy sector is identified as the primary source of GHG emissions, accounting for approximately three-quarters of the total global emissions (Sani et al., 2022). Consequently, this sector holds the key to mitigating the worst impacts of climate change. Indonesia's commitment to the NZE 2060 target is concretely outlined in its Nationally Determined Contribution (NDC), a core component of the Paris Agreement implementation. This commitment aligns with a growing global coalition, where 107 countries had adopted net-zero pledges by June 2024. Achieving such a profound national target necessitates the active and integrated participation of all sectors, with a crucial role being played by the public sector. Public sector entities are not only responsible for formulating and enforcing regulations but also act as direct providers of services and products that have significant environmental impacts (Weber, 2025).

In Indonesia, state-owned enterprises (BUMN), particularly in the energy sector, are at the forefront of this national strategy. PT Perusahaan Gas Negara (PGN) Tbk, as the gas subholding of PT Pertamina (Persero), has explicitly outlined its roadmap towards the NZE 2060 target. This roadmap involves significant growth in renewable energy initiatives and a strategic shift towards low-carbon energy vectors, such as natural gas and electric vehicles, demonstrating a clear direction for decarbonization (IESR, Agora Energiewende, & LUT University, 2021). PGN's role is crucial as it manages and distributes natural gas, widely recognized as a transition fuel due to its lower carbon intensity compared to coal and oil. This strategic position means PGN's operational and marketing decisions have a direct impact on the pace and scale of Indonesia's energy transition.

The role of public sector entities like PGN in driving the clean energy transition requires a robust theoretical and practical framework. This transition demands a strong collaboration between local and international actors, supported by effective policy frameworks, infrastructure development, and technological adaptation (Kabeyi & Olanrewaju, 2022). In response to these challenges, PGN has actively contributed to national energy security by strengthening its gas infrastructure and expanding access to natural gas across various market segments, including households, commercial entities, and industries (Herawati & Purwanto, 2025). Its strategic approach, known as "Grow- Adapt-Step Out," aims to expand its integrated gas infrastructure, efficiently connecting suppliers with end-users while providing alternative supply options such as Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) (Parwatha, Kusuma, & Indiaryanto, 2022). These operational and strategic responses demonstrate how a public sector entity is translating national policy into actionable business strategies.

This transition towards green energy by public sector entities reflects a complex interplay of technological innovation, policy alignment, and market formation. The fundamental role of public administration is evolving from a mere service provider to an active co-creator of shared value for sustainability (Suherman, Hartutik, & Lastri, 2025). Within this context, green marketing must transcend the communication of product benefits; it must articulate the broader

social value and policy alignment inherent in the energy transition. For instance, PGN's specific initiatives, such as the development of a biomethane business from palm oil mill effluent and investments in LNG infrastructure are not just commercial ventures but are strategic instruments for achieving national decarbonization goals (Mahmod et al., 2020). A key legal foundation for this is the National Energy Policy (KEN), regulated by Government Regulation (PP) No. 79 of 2014, which emphasizes the need for sustainable, secure, and environmentally friendly energy management, further detailed in the National Energy General Plan (RUEN) under Presidential Regulation No. 22 of 2017. These policies explicitly outline the strategic role of natural gas as a cleaner transition fuel.

However, the implementation of these ambitious policies is not without challenges. Despite the clear regulatory framework, data from the National Energy Council shows that the renewable energy mix had only reached 13.29% by the end of 2023, far from the 23% target set for 2025. This significant gap underscores the urgency for all stakeholders, particularly BUMNs like PGN, to accelerate their contributions. Moreover, the existing body of literature on green marketing, while extensive, predominantly focuses on the private sector, where motivations are often profit-driven and brand-oriented. There is a significant gap in research concerning how public sector institutions or BUMNs adopt and implement green marketing strategies, especially in relation to their unique mandate of serving public interests and fulfilling government policy objectives. Furthermore, existing literature rarely integrates the explicit link between national energy policies (such as the KEN and RUEN) and operational-level marketing practices.

This study aims to address this gap by analyzing the implementation of the *green marketing mix* strategy within a public sector context. While the concept of the *green marketing mix* (7P) has been explored in general marketing literature (Booms & Bitner, 1981; Peattie & Crane, 2005), its application as a strategic tool for public sector entities to achieve specific national environmental targets remains underexplored. A bibliometric analysis conducted for this study, using keywords "Green marketing mix," "Public sector," and "Net zero emission," reveals a significant *neglected gap*. The visualization shows that while topics like *sustainable development* and *green marketing* are central, their connection to specific variables like *net zero emission* targets and cross-sector innovation in the public sector is weak. This confirms that the integration of green marketing strategies into public policy frameworks for achieving NZE targets is a high-novelty area with substantial potential for contribution.

This study utilizes the *green marketing mix* (7P) framework. The original 7P framework was developed by Booms and Bitner (1981) for services marketing and was later adapted into the green marketing context by Peattie and Crane (2005). This adapted framework, encompassing Product, Price, Place, Promotion, People, Process, and Physical Evidence, provides a comprehensive lens to analyze how sustainability principles are integrated into every facet of an organization's marketing and operational strategy. In the context of PGN, this framework allows for a systematic examination of how the company translates its commitment to NZE 2060 into tangible, actionable strategies. The implications of these strategies are further analyzed through the lens of the Triple Bottom Line (TBL) theory (Elkington, 2018), which emphasizes the balance between economic, environmental, and social performance, a critical consideration for any public sector entity.

The focus of this research is on the specific segment of small and medium enterprises (UMKM) in Lampung Province, Indonesia. This segment is strategically important for accelerating the adoption of clean energy due to its scale and wide distribution. According to data from the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia, there are more than 65 million UMKM units in Indonesia, absorbing approximately 97% of the national workforce (Antara News, 2024), Moreover, in Lampung Province, 99.5% of the total 492,986 businesses are classified as micro-enterprises (Badan Pusat Statistik Provinsi Lampung, 2024). This segment presents a massive potential market. However, these enterprises

often face barriers such as limited energy literacy, access to gas infrastructure, and a preference for conventional energy sources. Therefore, the *green marketing mix* strategy implemented by PGN Area Lampung for this segment is a critical case study. By focusing on this emerging and economically vital segment, this research aims to analyze not only the implementation of green marketing strategies by a public sector entity but also its implications for achieving the national NZE 2060 target. The novelty of this research lies in its integrated approach, linking macro-level national policy to micro-level marketing implementation within a public sector BUMN, specifically focusing on a strategically important and under-researched customer segment

## 2. LITERATURE STUDY

The global imperative to address climate change has positioned the energy sector at the center of sustainability discussions. As nations commit to reducing greenhouse gas emissions, the role of public sector organizations—particularly state-owned enterprises (BUMN)—in facilitating the transition to clean energy has become increasingly critical (Andrian et al., 2024). In Indonesia, the target of achieving Net Zero Emission (NZE) by 2060 necessitates not only technological innovation but also strategic shifts in how energy services are marketed and delivered to the public (Kementerian Energi dan Sumber Daya Mineral Republik Indonesia, 2023). Within this context, *green marketing* has emerged as a strategic instrument for public sector entities to promote sustainable consumption while fulfilling their mandate of public service (Muttaqien, Murdiyanto, & Sari, 2024).

The theoretical foundation of this study rests on two core frameworks. First, the *green marketing mix* (7P) expands the conventional marketing mix by integrating environmental considerations into product, price, place, promotion, people, process, and physical evidence (Booms & Bitner, 1981; Peattie & Crane, 2005). In the energy sector, natural gas is positioned as a *green product* due to its lower carbon intensity compared to coal and oil while distribution through pipeline networks (*green place*) reduces logistical emissions. Second, the *Triple Bottom Line* framework (Elkington, 2018) provides a lens for evaluating organizational performance across economic (*profit*), environmental (*planet*), and social (*people*) dimensions—a critical consideration for public sector entities balancing commercial viability with sustainability mandates.

Previous empirical studies on green marketing have predominantly focused on the private sector, examining consumer attitudes toward green products (Lam et al., 2016; Desai & Bhatt, 2024), the effectiveness of green promotion, and the role of pricing in shaping sustainable consumption (Kalama, 2011). In the energy context, research has explored the adoption of renewable energy technologies and utility-led green pricing programs (Kabeyi & Olanrewaju, 2022). However, these studies largely concentrate on developed economies and private companies, leaving a significant gap in understanding how public sector entities—particularly energy BUMNs in developing countries—implement green marketing strategies to support national decarbonization targets.

A bibliometric analysis conducted for this study using keywords "*green marketing mix*," "*public sector*," and "*net zero emission*" confirms this gap. The analysis reveals that while *sustainable development* and *green marketing* are central themes in the literature, their connection to *public sector* contexts and specific *net zero emission* targets remains weak. Emerging research trends are shifting toward *cross-sector innovation* and *sustainable development goals*, yet the integration of green marketing into public policy frameworks for achieving NZE remains underexplored. This study addresses this *neglected gap* by providing an in-depth qualitative case study of a public sector energy BUMN in Indonesia.

Based on the theoretical and empirical review, a conceptual framework is developed to guide this study. The framework posits that the implementation of the *green marketing mix* (7P)

by a public sector energy company influences its contribution to the national NZE 2060 target. This relationship is mediated by outcomes across the *Triple Bottom Line* dimensions: economic efficiency (*profit*), environmental sustainability (*planet*), and social equity (*people*). The framework serves as the analytical lens for investigating how PGN Area Lampung implements each element of the *green marketing mix* and how these practices collectively support the national decarbonization agenda.

## 3. METHODS

This study employs a qualitative research approach, which is well-suited for exploring and understanding the meanings individuals or groups ascribe to social or human problems (Creswell & Poth, 2024). A qualitative approach was selected because the research aims to gain an in-depth, contextual understanding of how the *green marketing mix* strategy is implemented by PT Perusahaan Gas Negara (PGN) Tbk Area Lampung and its implications for supporting the *Net Zero Emission* (NZE) 2060 target. This approach allows for an exploration of complex social and organizational phenomena, focusing on processes, interpretations, and the interplay of various factors within their natural setting, rather than measuring quantifiable outcomes (Denzin & Lincoln, 2018).

The research utilizes a case study design, a common and powerful qualitative strategy for conducting an in-depth exploration of a contemporary phenomenon within its real-life context (Yin, 2018). This design was deemed appropriate as it allows for a holistic and nuanced investigation of the specific case—PGN Area Lampung—providing rich, detailed insights into the implementation of its green marketing strategies and their connection to broader national policies. The case study approach is particularly effective for answering "how" and "why" research questions, aligning perfectly with the study's objectives to analyze the process of implementation and its implications .

The informants for this study were selected using a purposive sampling technique. This non-probability sampling method involves intentionally selecting participants based on their knowledge, expertise, and direct involvement with the phenomenon under investigation (Memon, Thurasamy, Ting, & Cheah, 2025). The criteria for selection were designed to ensure a comprehensive understanding of the research focus from both internal and external perspectives. Key informants included: (1) internal PGN Area Lampung personnel with direct responsibility in marketing, customer management, operations, or corporate sustainability, all with a minimum of three years of experience; and (2) active small business (UMKM) customers of PGN Area Lampung who had been using natural gas for at least one year. This strategy yielded a total of five key informants, comprising three PGN staff members from different functional divisions (*Sales, Customer Management & Technical Services,* and *Operation & Maintenance*) and two UMKM business owners, ensuring data triangulation across different roles and perspectives.

**Table 1.** Informant Profile Table

| No | Role/Position | Rationale for Selection |
|---|---|---|
| 1 | Jr. Assistant IV, City Gas Sales | Directly involved in green marketing mix formulation |
| 2 | Jr. Assistant IV, Customer Management & Tech. | Manages sustainability initiatives and customer edu. |
| 3 | Jr. Analyst, Operation & Maintenance | Oversees *green process* and *physical evidence* |
| 4 | UMKM Owner (Laundry) | End-user perspective on price, service, efficiency |
| 5 | UMKM Owner (Food stall) | End-user perspective on price, service, efficiency |

Data were collected through three primary techniques to ensure comprehensiveness and triangulation. First, in-depth, semi-structured interviews were conducted with all informants.

This format allowed for flexibility in probing responses and exploring emergent themes while maintaining a focus on the core research questions (Kallio, Pietilä, Johnson, & Kangasniemi, 2016). Interviews, lasting approximately 45 to 60 minutes, were guided by a pre-developed interview protocol aligned with the 7P framework of the *green marketing mix*. Second, non-participant observation was employed to gain empirical insights into the physical environment, operational activities, and service interactions, providing contextual data that complemented the interview narratives. Observations focused on the distribution infrastructure, office facilities, and customer service points. Third, a documentation study was conducted, involving the collection and analysis of relevant secondary data, including PGN's annual reports, sustainability reports, internal policy documents, customer databases, and official government regulations related to energy transition and NZE.

To ensure the trustworthiness and credibility of the findings, the study employed data triangulation by source. This involved cross-verifying information obtained from different informants (e.g., PGN employees and UMKM owners) and from different data collection methods (e.g., interviews, observations, and documents). Triangulation helps to reduce bias and strengthens the validity of qualitative research by confirming findings from multiple perspectives (Miles, Huberman, & Saldaña, 2018).

The collected data were analyzed using the interactive model of qualitative analysis proposed by Miles et al. (2018). This process involved three concurrent flows of activity: data condensation, data display, and conclusion drawing/verification. Data condensation was the process of selecting, focusing, simplifying, and abstracting the data from interview transcripts and field notes. The condensed data were then organized and presented in a systematic format, such as descriptive narratives and thematic matrices (data display), to facilitate analysis. Finally, conclusions were drawn and continuously verified by revisiting the data to confirm emerging patterns, relationships, and meanings, ensuring that interpretations were grounded in the evidence

## 4. RESULT AND DISCUSSION

### 4.1 RESULT

This section presents the empirical findings derived from in-depth interviews, non-participant observation, and document analysis conducted at PT Perusahaan Gas Negara (PGN) Tbk Area Lampung. The results are organized thematically to address the two primary research questions: (1) the implementation of the *green marketing mix* strategy for small customers (UMKM), and (2) the implications of this implementation for achieving the Net Zero Emission (NZE) 2060 target. Perusahaan Gas Negara, as the gas *subholding* of PT Pertamina (Persero), holds a strategic mandate to strengthen national energy security and support the energy transition agenda towards NZE 2060. Natural gas, with a carbon emission intensity approximately 40% lower than other fossil fuels (Kementerian ESDM, 2023), is positioned as a critical transition fuel. PGN Area Lampung operates a gas distribution network spanning over 514.8 km, including steel and polyethylene pipelines, supported by three main *offtake* stations. This infrastructure serves a diverse customer base, including households, small enterprises (UMKM), and industrial clients. Data from PGN Lampung (2024) shows a notable increase in UMKM customers from 50 to 64 within a year, indicating a positive trend in the adoption of cleaner energy among productive small-scale businesses

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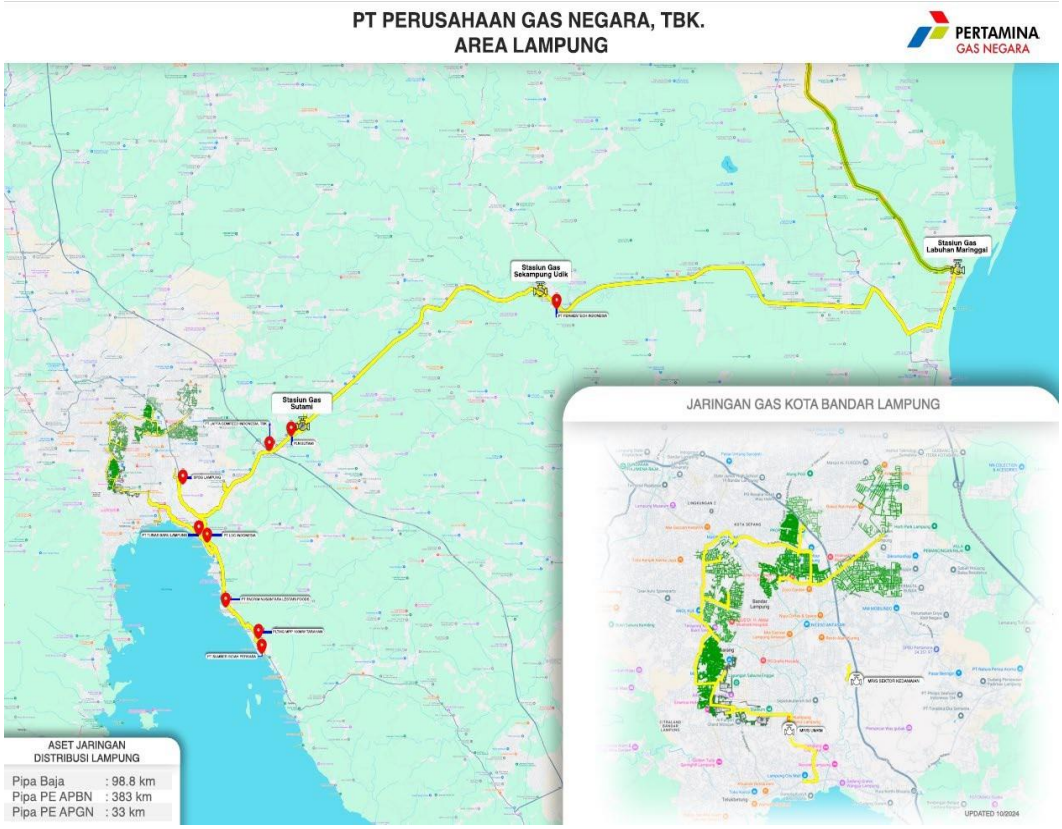


**Figure 1**. **PGN Gas Distribution Network Map for the Lampung Area**

The strategic importance of the UMKM segment is underscored by its dominance in Lampung's economy. With over 97% of the province's active businesses classified as UMKM (BPS Lampung, 2024), this segment is a crucial target for accelerating the clean energy transition. However, initial findings from interviews revealed that the drivers for adopting natural gas among these businesses are predominantly economic, focused on efficiency and cost savings, rather than environmental awareness. An internal PGN sales staff member stated, *"Honestly, UMKM are not aware of green marketing or green energy. They are more focused on the efficiency gained by switching to natural gas"* (Diah Kenanga, personal communication, October 21, 2025). This perception was confirmed by a UMKM owner, who noted, *"As a small business owner, my initial decision to switch to natural gas was profit"* (Hery, personal communication, October 24, 2025).

**Table 2. Distribution of UMKM by Sector in Lampung Province (2024)**

| Business Sector | Number of UMKM | Percentage (%) |
|---|---|---|
| Trade | 5,598 | 18 |
| Culinary | 5,217 | 17 |
| Tourism & Creative Economy | 4,287 | 14 |
| Education | 3,090 | 10 |
| Agriculture & Livestock | 2,987 | 10 |
| Technology Information | 2,799 | 9 |
| Services | 2,341 | 8 |
| Health & Fitness | 2,087 | 7 |
| Transportation & Logistics | 2,084 | 7 |
| **Total** | **30,990** | **100** |

### 4.1.1 Implementation of the Green Marketing Mix (7P)

The following sections detail the implementation of each element of the *green marketing mix* (Booms & Bitner, 1981; Peattie & Crane, 2005) based on the empirical data.

#### 4.1.1.1 Green Product

The natural gas product is perceived by customers primarily for its functional benefits: efficiency, ease of use, and operational safety. A laundry business owner noted, *"The advantage I feel is greater efficiency and convenience"* (Hery, personal communication, October 24, 2025). Similarly, a food stall owner highlighted efficiency and clear complaint-handling procedures as key benefits (Adi Dunday, personal communication, October 24, 2025). Despite its technical advantage as a lower-carbon fuel, the environmental dimension of the product is not communicated to customers. An internal sales representative confirmed, *"Green marketing strategies have not been systematically conveyed"* (Diah Kenanga, personal communication, October 21, 2025).

#### 4.1.1.2 Green Price

The pricing of natural gas is centrally regulated by the Ministry of Energy and Mineral Resources (ESDM), leaving PGN Area Lampung with no autonomy to implement green pricing schemes. While the tariff is set at a central level, customers reported significant operational cost savings, ranging from 10-20% (Adi Dunday, personal communication, October 24, 2025). However, a barrier was identified: the initial connection fee and security deposit. One UMKM owner noted, *"The security deposit is a bit of a hindrance because we, as business owners, have to pay a deposit"* (Hery, personal communication, October 24, 2025).

#### 4.1.1.3 Green Place

The *on-pipe* distribution system serves as the primary embodiment of *green place*. This infrastructure is perceived to reduce logistical emissions by eliminating the need for cylinder transport, enhancing safety, and ensuring stable supply. An operations staff member explained, *"Gas supply is relatively stable, and disruptions are rare"* (Aji Darmawan, personal communication, October 22, 2025). The use of digital monitoring and maintenance systems (O&M) further supports operational efficiency and minimizes the risk of gas leakage. However, the network’s coverage remains limited, preventing many UMKM outside the pipeline corridors from accessing natural gas, highlighting a significant infrastructural constraint to equitable energy access

#### 4.1.1.4 Green Promotion

Promotional activities rely heavily on direct, personal approaches such as door-to-door canvassing, which are considered effective for building trust and rapport with customers. A customer management staff member stated, *"Promotion is done through online media, mass socialization, and personal visits... customers prefer visits because the approach is more personal"* (Idrul, personal communication, October 17, 2025). The content of these promotions, however, focuses almost exclusively on economic benefits, safety, and supply reliability. A UMKM owner confirmed this, saying, *"I haven't seen any PGN promotions highlighting clean energy; they highlight energy that is economical and safe to use"* (Hery, personal communication, October 24, 2025).

#### 4.1.1.5 Green People

PGN staff demonstrated strong technical competence, professionalism, and adherence to *Good Corporate Governance* (GCG) principles. A customer management staff member emphasized, *"We always uphold transparency in every aspect of our work... public trust is expensive. We will continue to maintain it"* (Idrul, personal communication, October 17, 2025). Customers corroborated this, describing staff as responsive and friendly. However, their capacity for environmental communication is limited; they do not actively convey the environmental benefits of natural gas or the company's role in the NZE agenda, which is perceived as the domain of central corporate communications.

#### 4.1.1.6 Green Process

Operational processes are characterized by efficiency, digitalization, and rapid response. Customers reported that complaints are handled quickly, with a standard resolution time of 1x24 hours via the contact center (PCC 135) and responsive field staff. An UMKM owner stated, *"When I interact with sales or field staff, they are very good and respond very quickly"* (Adi Dunday, personal communication, October 24, 2025). The use of digital platforms like the PGN Mobile App and integrated O&M systems enhances service transparency and operational coordination. However, the sustainability report (PGN, 2024) indicates that customer-level carbon footprint measurement is not yet a routine operational indicator.

#### 4.1.1.7 Green Physical Evidence

PGN Area Lampung possesses tangible *physical evidence* of its commitment to sustainability, most notably its underground pipeline network, gas stations, and the Floating Storage and Regasification Unit (FSRU) Lampung, which enhances supply reliability and operational efficiency. Additionally, corporate social responsibility (CSR) programs, such as providing multipurpose garages for local communities, serve as further physical manifestations of the company's social engagement. A customer noted, *"The installation is centralized, so it looks safe, clean, and modern"* (Adi Dunday, personal communication, October 24, 2025). However, these facilities are not interpreted by customers as symbols of clean energy or the energy transition, as there is a lack of visual communication or signage linking the infrastructure to its environmental benefits.

**Table 2.** Summary of Green Marketing Mix Implementation

| 7P Element | Implementation Practice | Key Finding / Gap |
|---|---|---|
| Green Product | Natural gas marketed as efficient, safe, cost-saving | Environmental benefits not communicated |
| Green Price | Centrally regulated tariff; customers report 10–20% savings | No green pricing incentives at local level |
| Green Place | Pipeline network (514.8 km), digital O&M monitoring | Limited coverage; not all UMKM can access |
| Green Promotion | Door-to-door visits, online media; focus on efficiency | Lack of environmental messaging |
| Green People | Technically competent, GCG-oriented staff | No sustainability literacy training |
| Green Process | Digital platforms (PGN Mobile, PCC 135), 1×24h response | Customer-level carbon footprint not measured |
| Green | Modern pipelines, FSRU Lampung, | Not perceived as “clean energy” |

| | | |
|---|---|---|
| Physical Evidence | CSR facilities | symbols |

## 4.2 Discussion

The results of this study reveal a significant and nuanced picture of green marketing implementation within a public sector energy company. The findings indicate that PGN Area Lampung has successfully integrated the principles of the *green marketing mix* (7P) into its operational and service framework. However, a critical analysis shows that this integration is currently dominated by a focus on functional and economic value rather than a holistic internalization of environmental and social values (Elkington, 2018). This discussion synthesizes these findings with established theories and prior research to articulate the study's contributions and novel insights.

### 4.2.1 The Economic Pragmatism of Green Marketing in the Public Sector

The most consistent finding across all 7P elements is that the primary driver for customers and the main focus of PGN's strategy is economic efficiency. This is evident in the *green product* being valued for cost savings, the *green price* being a source of operational savings, and *green promotion* heavily emphasizing efficiency narratives. This aligns with prior research on energy adoption in developing economies, which identifies economic incentives as the primary motivator for UMKM, rather than environmental consciousness (Yaumi, Nataliawati, Hakim, & Majid, 2026).

From the perspective of the *Triple Bottom Line* (Elkington, 1997; 2018), the current implementation of PGN's green marketing mix is heavily skewed towards the economic dimension (*profit*). The social (*people*) dimension is partially addressed through responsive service and community CSR programs like the Garasi Serba Guna (GSG). However, the environmental dimension (*planet*), despite being inherent to the product itself, is not strategically communicated or leveraged as a core value. This creates a *functional green positioning*, where the environmental benefits remain latent and are not internalized by the customer. The success of the strategy, therefore, is driven by market logic (cost savings) rather than a values-driven transition. This represents a missed opportunity for the public sector to use its marketing mix as a tool for ecological education and behavioral change (Petrescu, Tribus, Raducu, & Purcarea, 2021)

### 4.2.2 Structural and Cultural Constraints to a Holistic Green Transition

Several constraints limit the transition from economic-driven to sustainability-driven green marketing. The most significant is the centralized policy framework. PGN Area Lampung has no autonomy over pricing (*green price*) to create specific incentives for green behavior. This finding supports Geels' (2011) *multi-level perspective* on sustainability transitions, where the existing *socio-technical regime* (national energy policy) imposes constraints that limit the ability of *niche-level actors* (regional PGN offices) to innovate in the socio-cultural dimension of the transition. The company is effectively implementing a technological and operational transition but is not empowered to fully enact a socio-cultural one.

Furthermore, the study identified a critical *disconnect* between the strategic sustainability agenda set by PGN's corporate center—as evidenced in its annual reports and public communications—and its implementation at the operational area level. While corporate communications highlight PGN's role as a green energy provider supporting NZE 2060, area-level staff (the *green people*) lack the training and mandate to communicate these environmental messages to customers. This is compounded by the absence of explicit green narratives in *green promotion* and the lack of educational signage in *physical evidence*. This institutional gap echoes

the concept of *functional silos* (Kim, Shoenberger, Kwon, & Ratneshwar, 2022), where a strategic vision is not effectively diffused across all organizational layers, hindering the full realization of its intended impact

### 4.2.3 Implications and the Path to Net Zero Emission 2060

Despite these constraints, the study confirms that the implementation of the *green marketing mix* at PGN Area Lampung has significant positive implications for the NZE 2060 target. The shift of UMKM from LPG to natural gas represents a real-world reduction in carbon emissions at the point of consumption. The *green place* strategy, with its efficient pipeline network, contributes to reducing logistical emissions, a key point in sustainable supply chain management (Çapar, Rump, Sawaya, Mohamed, & Alves (Mysyk), 2025). The *green process*, with its digitalization and focus on leak prevention, ensures that energy is delivered with minimal loss, enhancing overall system efficiency.

However, to maximize its contribution to NZE 2060, PGN must bridge the gap between its economic and environmental value propositions. The findings suggest that the company's *green marketing* is currently operating as a *sustainability-adjacent* practice—the environmental benefits are a co-benefit of a product chosen for economic reasons, not the core driver of adoption. To become a *sustainability-led* organization, the company must integrate the environmental dimension more explicitly across its 7P framework

### 4.2.4 Novelty and Contribution of the Study

The novelty of this research lies in its specific empirical focus on a public sector BUMN in the energy sector and its analysis through the integrated lens of the *green marketing mix* and *Triple Bottom Line* within a national policy context. While prior studies have explored green marketing in the private sector (Bhardwaj et al., 2020; Desai & Bhatt, 2024) or the general concept of public sector marketing, this study provides a granular, case-based analysis of how a state-owned energy company translates a macro-level national target (NZE 2060) into micro-level marketing and operational practices.

This study's contribution is threefold. First, it empirically demonstrates the *disconnect* between high-level sustainability commitments and their operational implementation, highlighting the structural and cultural barriers within a public sector entity. Second, it provides a concrete example of the *economic pragmatism* that currently defines the adoption of cleaner energy in developing economy contexts, underscoring the need for marketing strategies that go beyond functional benefits to internalize environmental values. Third, by applying the 7P and TBL frameworks to a public sector case study, the research provides a replicable analytical model for evaluating green marketing in other state-owned enterprises

### 4.2.5 Limitations and Future Research Directions

This study is limited by its focus on a single case study area (PGN Lampung) and a specific customer segment (UMKM). While the qualitative design allows for rich, in-depth insights, the findings may not be directly generalizable to other regions or customer segments. Future research could employ a mixed-methods approach to quantitatively measure the impact of specific green marketing interventions on customer behavior and emission reductions. A comparative study across different PGN operational areas or between PGN and other energy BUMNs could further elucidate the factors that enable or constrain a successful green marketing transition. Additionally, further research is needed to explore the effectiveness of integrating explicit environmental messaging into promotional activities and its impact on customer loyalty and the perception of corporate legitimacy. This would provide the evidence base needed to

transform the current economic pragmatism into a truly sustainability-driven model that can accelerate Indonesia's path to Net Zero Emission 2060

## 5. CONCLUSION

This study shows that PT Perusahaan Gas Negara (PGN) Tbk Area Lampung has implemented all seven elements of the green marketing mix, but the implementation remains focused on economic efficiency and functional benefits rather than environmental values. Customers primarily perceive natural gas as cost-saving, practical, and safe, while its low-emission advantage is not effectively communicated. A gap exists between corporate-level sustainability commitments and operational marketing practices, resulting in UMKM adoption being driven more by economic considerations than ecological awareness. Theoretically, the study highlights that green marketing in state-owned enterprises is shaped by centralized policies and regulatory frameworks, aligning with sustainability transition perspectives. Practically, PGN needs to integrate environmental values into its marketing, empower staff as sustainability ambassadors, and strengthen education and green incentives to support the NZE 2060 target. As the study is limited to a single case, future research should apply quantitative methods, comparative regional analysis, and digital technologies to enhance green marketing effectiveness.

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