Lisbon School of Economics & Management
Universidade de Lisboa

MASTERS IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
ENCAVIS AG

JASPER FRANZ LECLERC

JUNE 2025

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SUPERVISOR:
JOÃO ESTEVÃO

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Abstract

Encavis AG is a Hamburg-based independent power producer operating one of Europe's largest portfolios of solar and wind parks under long-term Power Purchase Agreements.

While this Master Final Work applies key methodologies of Equity Research, it deliberately refrains from issuing a trading recommendation. Instead, the analysis is geared towards assessing the fairness of the €17.50 per share takeover offer made by Kohlberg Kravis & Roberts & Co, a global investment firm, in November 2024. The report applies a twofold valuation methodology, consisting of a Discounted Cash Flow model and a Comparable Company Analysis using the SARD peer selection method. The Discounted Cash Flow yields an intrinsic base-case value of €16.34 per share, implying a 7.1% premium from the offer price.

Encavis' key value drivers include its regulated cash flows, favorable capital structure, and its strategic Accelerated Growth Strategy 2027, which targets >5 GW of installed capacity. However, the business model is subject to risks related to high interest rates, capital intensity, and regulatory uncertainty. ESG factors and sector trends, such as grid congestion and evolving subsidy regimes, were also considered in the qualitative assessment.

Given the modest premium and the financial context in which the offer was launched, the transaction is appraised as Fairly Valued, though opportunistically timed. It allows minority shareholders a reasonable exit amid tighter capital markets, but limits exposure to Encavis' potential long-term upside under continued independent operation.

JEL classification: G00; G32; G34; Q42; G38

Keywords: Equity Research; Valuation; Mergers & Acquisitions; Encavis AG

Resumo

A Encavis AG é uma produtora independente de energia com sede em Hamburgo, que opera um dos maiores portfólios de parques solar e eólicos da Europa, sustentados por contratos de compra de energia de longo prazo.

Embora este Trabalho Final de Mestrado adote metodologias centrais da análise de Equity Research, opta deliberadamente por não emitir uma recomendação de investimento. Em vez disso, a análise é direcionada à avaliação da razoabilidade da oferta pública de aquisição de €17,50 por ação feita pela empresa global de investimentos Kohlberg Kravis & Roberts & Co, em novembro de 2024. O relatório aplica uma metodologia de avaliação dupla, composta por um modelo de Fluxo de Caixa Descontado e uma Análise de Empresas Comparáveis utilizando o método de seleção de pares SARD. O modelo de Fluxo de Caixa Descontado resulta em um valor intrínseco de base de €16,34 por ação, implicando um prémio de 7,1% em relação ao preço da oferta.

Os principais fatores de valorização da Encavis incluem fluxos de caixa regulados, uma estrutura de capital favorável e a estratégia de crescimento acelerado até 2027, que visa ultrapassar os 5 GW de capacidade instalada. No entanto, o modelo de negócio está sujeito a riscos associados à alta intensidade de capital, ao aumento das taxas de juro e à incerteza regulatória. Também foram considerados fatores ESG e tendências do setor, como a congestão da rede elétrica e mudanças nos regimes de subsídios.

Dado o prémio modesto e o contexto financeiro no momento do lançamento da oferta, a transação é avaliada como Justamente Avaliada, ainda que oportunista em termos de timing. A oferta oferece aos acionistas minoritários uma oportunidade racional de saída diante de mercados de capitais mais restritos, mas limita o potencial de valorização de longo prazo da Encavis como empresa independente.

Classificação JEL: G00; G32; G34; Q42; G38

Palavras-Chave: Equity Research; Avaliação de Empresas; Fusões e Aquisições; Encavis AG

Acknowledgements

I would like to express my sincere gratitude to my professors at ISEG, in particular, Professor Tiago Gonçalves, Professor Victor Barros, and my thesis supervisor João Estevão. Thank you for the time, knowledge, and guidance you generously shared throughout this Master's program and during the development of this thesis.

A heartfelt thank you also goes to my parents, whose support and encouragement made this academic journey possible. I am deeply grateful for the opportunity they gave me to pursue my Master's degree.

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Glossary

CapEx	Capital Expenditures
CAPM	Capital Asset Pricing Model
CAGR	Compound Annual Growth Rate
CRP	Country Risk Premium
CO2	Carbon Dioxide
DCF	Discounted Cash Flow
DDM	Discounted Dividend Model
E	Expected
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ECB	European Central Bank
EPS	Earnings Per Share
EV	Enterprise Value
EVs	Electric Vehicles
EV/EBITDA	Enterprise Value to EBITDA
ESG	Environmental Social Governance
FCFF	Free Cash Flow to the Firm
FY	Financial Year
GDP	Gross Domestic Product
GRI	Global Reporting Initiative
GW	Gigawatts
IEA	International Energy Agency
IoT	Internet of Things
IPP	Independent Power Producer
IRENA	International Renewable Energy Agency
ITC	Investment Tax Credit
KKR	Kohlberg Kravis & Roberts & Co
LCOE	Levelized Cost of Electricity
MDAX	Mid-Cap-DAX (German stock index)
MF	Monetary Fund
MRP	Market Risk Premium
MW	Megawatt
NAV	Net Asset Value
OCF	Operating Cash Flow
PPA	Power Purchase Agreement
P/E	Price-to-Earnings
PESTEL	Political, Economic, Social, Technological, Environmental and Legal
PV	Photovoltaic
R&D	Research & Development
ROCE	Return on Capital Employed
SARD	Sum of Absolute Rank Differences
TCFD	Task Force on Climate-related Financial Disclosures
TGR	Terminal Growth Rate
TWh	Terawatt-hours
WACC	Weighted Average Cost of Capital

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ENCAVIS
Fairly Valued
Medium risk
30 June 2025
Portugal

Encavis AG: Powering Sustainable Growth with Predictable Returns

1. Research Snapshot

Encavis AG is a leading independent power producer (IPP) based in Hamburg, Germany, with a geographically diversified portfolio comprising over 320 renewable energy parks, approximately 230 solar and 90 wind, across 12 European countries. With an installed capacity exceeding 2.1 gigawatt (GW), the company generated 3.35 terrawatt-hour (TWh) of clean electricity in 2023, avoiding 1.3 million metric tons of CO_2 emissions. Its business model is underpinned by stable, long-term cash flows secured through feed-in tariffs and private Power Purchase Agreements (PPAs).

In November 2024, Encavis was acquired by private equity firm KKR (Kohlberg Kravis & Roberts & Co) and subsequently delisted, following an offer of €17.50 per share (See Figure 1). This represented a 30.3% premium to the unaffected market price of € 13.43 (opening price on March 14, 2024) but only a 7.1% premium over our estimated intrinsic value of €16.34 (Yahoo Finance, 2024). The main objective of the acquisition was to take Encavis private and support its "Accelerated Growth Strategy" through flexible capital deployment and operational independence.

A **Discounted Cash Flow (DCF)** valuation using **Free Cash Flow to the Firm (FCFF)** indicates that the acquisition offer of €17.50 per share is **fairly valued**, with a base-case intrinsic value of €16.34, representing a **premium of 7.1%** over intrinsic value (See Table 1). At the time of the announcement on March 14th, 2024, Encavis' share price stood at €13.43 (unaffected market price), implying that the stock was **undervalued by 21.7%** relative to its intrinsic value. The offer thus effectively aligned the market price with the company's underlying fundamentals.

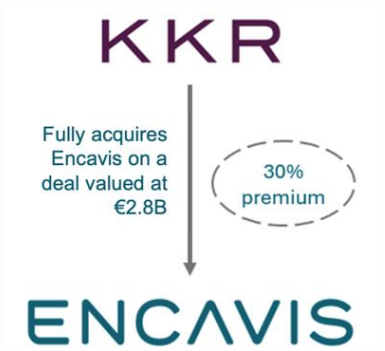
This valuation leads to a **Medium Risk** assessment, driven by execution challenges, regulatory uncertainty, and interest rate sensitivity. However, these risks are partially offset by Encavis' robust operating cash flows, high revenue visibility from long-term contracts, and operations in a sector with a positive environmental impact, which continues to support its investment profile under private ownership.

Financially, Encavis exhibits robust fundamentals: a 71% EBITDA (Earnings before interest, taxes, depreciation and amortization) margin, €234.9 million in recurring operating cash flows (2023), and a net debt/EBITDA ratio of 5.2x. The equity ratio stands at 33.2%, supporting a capital-intensive growth strategy aimed at expanding installed capacity to over 5 GW by 2027. In 2023 alone, the company added over 550 MW of new capacity, exceeding internal targets by 33%.

Encavis shows mixed ESG (Environmental Social Governance) performance according to Bloomberg's 0–10 scale, with an overall ESG score of 3.05. This reflects relatively low scores in Environmental (1.50) and Social (3.10) categories, and a moderate Governance score (6.42). This underlines the importance of strengthening ESG disclosures and initiatives, particularly under private ownership, to maintain investor confidence and access to sustainability-focused capital.

While Encavis' long-term growth outlook remains compelling, the near-term investment thesis is tempered by external headwinds. Accordingly, the transaction is considered fairly priced with limited short-term upside under current assumptions.

Figure 1 – Encavis AG Acquisition



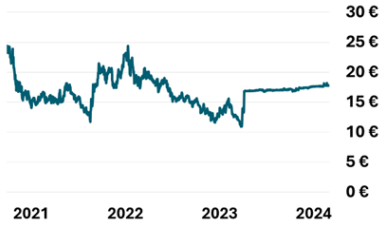
Source: *Author's Analysis*

Table 1 – Encavis AG Overview

Conclusion	Fairly Valued
Date (DCF Discounted as of)	03/14/2024
Acquisition Price	€17.50 per Share
Target Price	€16.34 per Share
Upside	7.1%
Industry	Renewable Energies
Sector	PV and Wind Park Operator
Ticker	ECV GR Equity
Stock Exchange	Frankfurt Stock Exchange and Hamburg Stock Exchange
Shares Outstanding	161,030 mio
Market Capitalization	€2,162 mio (03/14/2024)

Source: *Author's Analysis*

Figure 2 – Encavis AG historic stock price



Source: *Yahoo Finance, 2024*

2. Business Description

Encavis AG, headquartered in Hamburg, Germany, is a leading IPP with a focus on onshore wind and solar parks across Europe. The company operates a diversified portfolio of approximately 230 solar parks and 90 wind parks across 12 countries, including Germany, Italy, France, and Denmark, with a total installed capacity exceeding 2.1 GW (See Figure 3). In 2023, Encavis generated over 3.35 TWh of electricity, contributing to the reduction of approximately 1.3 million metric tons of CO2 emissions annually (Encavis AG, 2023a, 2025a; Pexapark, 2022).

In November 2024, Encavis underwent a significant transformation in its corporate structure, transitioning from a publicly listed entity to a privately held company. This move was executed through Elbe BidCo AG, a special purpose vehicle backed by KKR, with additional investments from Viessmann Group and Abacon Capital, Encavis' long-standing strategic shareholder. The privatization is designed to provide Encavis with greater operational and financial flexibility to accelerate its "Accelerated Growth Strategy 2027," while leveraging KKR's sector expertise and capital strength. The new ownership structure aims to enable more agile decision-making, faster execution of large-scale renewable projects, and enhanced capacity to drive innovation across the company's integrated energy platform (KKR, 2024a; Encavis AG, 2024b).

Previously listed on the german stock index MDAX (Mid-Cap-DAX), Encavis had a market capitalization of approximately EUR 2.8 billion as of December 2023. In the same year, the company achieved an operating revenue of EUR 469.6 million, supported by high-margin operations with an EBITDA margin of 71% and an operating EBIT (Earnings before interest and taxes) of EUR 163.1 million. Despite challenging energy market conditions, Encavis' resilient business model remained underpinned by long-term PPAs and feed-in tariffs, which accounted for the majority of its revenue, ensuring stable cash flows (Encavis 2024b).

Encavis focuses on strategic acquisitions of ready-to-build and turnkey projects as well as operational assets. In 2023, the company acquired projects and rights for an additional 550 megawatts (MW) of generation capacity, representing around 1,000 GWh of annual electricity production potential. Encavis aims to strengthen its leadership in the renewable energy market through its "Accelerated Growth Strategy 2027," emphasizing low-risk investments and efficiency gains across its expanding portfolio (Encavis AG, 2020, 2024c).

Operationally, Encavis is structured into five core segments: **PV Parks, Service, Wind Parks, Asset Management** and **Administration** (See Figure 5). This integrated setup enables Encavis to capture value across the full renewable energy value chain while maintaining strategic and operational agility.

Operational Segments

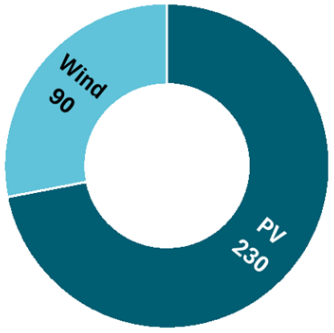
PV Parks | The solar parks segment includes Encavis' portfolio of over 230 solar parks located in key European markets such as Germany, Spain, Italy, France, and Denmark (See Figure 4). In 2023, solar parks contributed approximately 60% of Encavis' total electricity generation, capitalizing on high-efficiency PV technology (See Figure 6). The company's acquisition of an additional 550 MW of solar capacity in 2023 highlights its commitment to scaling this segment. Solar energy remains a cornerstone of Encavis' strategy due to its low Levelized Cost of Electricity (LCOE) and scalability, particularly in Southern Europe, where annual production per MW exceeds industry averages (Wood Mackenzie, 2024).

Wind Parks | Encavis operates approximately 90 onshore wind parks across countries including Germany, France, Denmark, and Finland (See Figure 4). These parks accounted for around 40% of the company's 2023 electricity production (See Figure 6). With a focus on optimizing efficiency, Encavis continues to invest in modernizing its wind assets. The company's wind parks, which contributed significantly to the company's EBITDA margin of 71% in 2023, are strategically located in regions with favorable wind conditions to maximize output and financial performance (Borenius, 2023; Encavis AG, 2024d).

Figure 3 – Encavis AG Active Markets

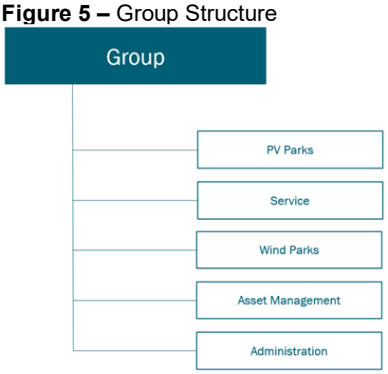
Source: *Encavis AG, 2024a*

Figure 4 – Amount of Parks by Segment



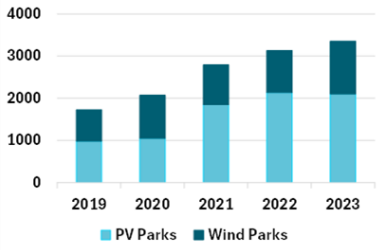
Source: *Encavis AG, 2024a*

Figure 5 – Group Structure



Source: *Encavis AG, 2024a*

Figure 6 – Total Electricity Supplied (GWh)



Source: *Encavis AG, 2024a*

Service | Through its subsidiary Stern Energy S.p.A., Encavis manages operations and maintenance services for both its own assets and third-party installations. Stern Energy operates in five European countries, including Germany, Italy, and the UK, and oversees more than 1 gigawatt (GW) of renewable energy capacity. In 2023, Stern Energy S.p.A generated EUR 55 million in revenue with an EBITDA margin of 11%. Encavis' technical services ensure an average availability rate of over 98% for its solar and wind assets, contributing directly to the reliability of revenue generation. In 2023, the Service segment also expanded its focus to include battery storage solutions and advanced digital optimization, enhancing asset performance and supporting grid stability (EQS, 2025; EuropaWire, 2024).

Asset Management | Encavis Asset Management AG oversees investments in renewable energy for institutional investors, managing over 80 assets, including more than 30 solar parks and 50 wind parks. In 2023, this segment generated EUR 28.9 million in revenue with an EBITDA margin of 51%, driven by fund structuring, ongoing portfolio management, and a focus on long-term, stable returns for clients (See Figure 7). The company's track record of aligning investment products with the high ESG standards demanded by institutional investors has positioned it as a trusted partner in sustainable energy investments (EQS, 2025; EuropaWire, 2024).

Company Strategies

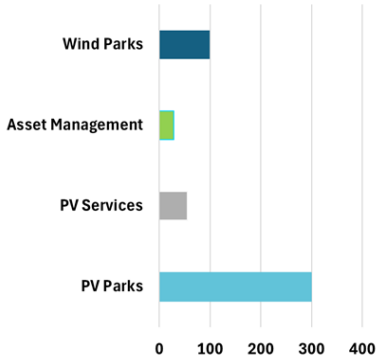
Accelerated Growth Strategy 2027 | Encavis' "Accelerated Growth Strategy 2027" targets an installed capacity exceeding 5 GW, a significant increase from the current 2.1 GW. In 2023, the company acquired 550 MW of new capacity, surpassing its annual target by 33% and adding approximately 1,000 GWh of annual electricity production potential (See Figure 8). With over EUR 375.6 million in available cash by the end of 2023, Encavis is well-positioned to fund its growth pipeline, which includes large-scale projects in Germany, Spain, and Italy, regions that account for 70% of its current capacity. The strategy anticipates annual revenue growth of 7-10% over the next three years (Clean Energy Pipeline, 2023; Encavis AG, 2023a, 2024c, 2024e).

Portfolio Optimization and Modernization | Encavis is strategically optimizing and modernizing its asset base to ensure long-term efficiency and value creation. Through targeted upgrades and repowering measures, the company aims to improve yield performance while maintaining a high portfolio availability rate. In 2023, solar parks alone generated 3.35 TWh, reflecting the growing impact of these initiatives on revenue quality. These efforts underpin Encavis' goal of sustaining an EBITDA margin above 70% (Encavis AG, 2024a; Scope Ratings, 2023).

Diversification Across Technologies and Markets | Encavis' portfolio goal is achieving a balanced 50:50 capacity split between solar and wind assets by 2027 (See Figure 9). Geographically, the company focuses on stable markets like Germany and Italy, which collectively account for more than 50% of its portfolio, while selectively expanding into emerging markets in Northern and Eastern Europe (See Figure 10). This diversification mitigates risks associated with geographic and weather variability (Encavis AG, 2024a).

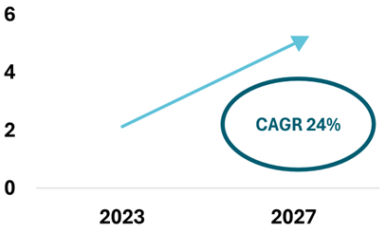
Subsidy-Free Operations Through PPAs | Encavis has strategically shifted toward subsidy-free renewable energy generation by focusing on long-term Power Purchase Agreements (PPAs) with corporate clients. This model supports its goal of stable, scalable, and independent operations across Europe. By aligning with industrial partners seeking reliable green electricity, Encavis positions itself as a preferred supplier for the decarbonization (Encavis AG, 2024f).

Figure 7 - Encavis Revenue per Segment (EUR)



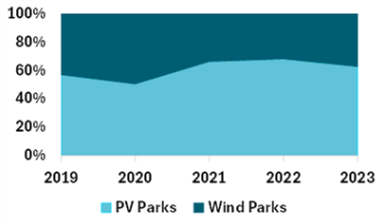
Source: *Encavis AG, 2024a*

Figure 8 - Encavis "Accelerated Growth Strategy 2027" (MW)



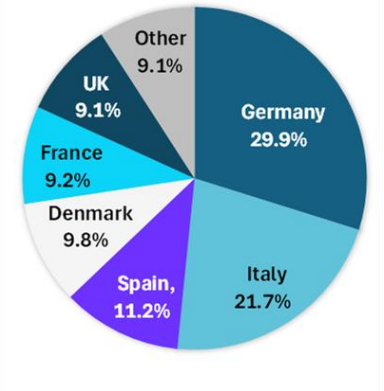
Source: *Encavis AG, 2024a*

Figure 9 – Encavis Load factor per Segment (%)



Source: *Encavis AG, 2024a*

Figure 10 – Geographical Share (FY 2023)



Source: *Encavis AG, 2024a*

Digitalization and Innovation | Encavis integrates advanced digital solutions to improve operational efficiency and cost management. The integration of AI-driven monitoring, predictive maintenance, and digital twin technology has streamlined asset management, leading to significant cost savings and improved uptime. Stern Energy, Encavis' technical services subsidiary, oversees more than 1 GW of assets, including third-party installations, ensuring high performance and cost efficiency. By 2027, Encavis aims to digitize 100% of its portfolio operations, enabling further cost reductions and productivity gains (Encavis AG, 2024f).

Key Drivers of Profitability

High Margin Renewable Assets | Encavis' portfolio of over 230 solar parks and 90 wind parks, with a combined installed capacity of 2.1 GW, ensures efficient production of clean energy. The majority stemmed from solar production, particularly in Southern Europe, where load factors reached up to 1,700 MWh per MW installed. This operational efficiency, combined with a low Levelized Cost of Energy (LCOE) of under EUR 40/MWh, enables Encavis to maintain healthy margins and strong competitiveness in a price-sensitive market (Encavis AG, 2021a; 2024a).

Long-Term PPAs | PPAs are a major driver of Encavis' recurring revenue and margin stability. As of 2023, nearly 60% of newly commissioned projects operate under fixed-price PPAs, contributing approximately EUR 250 million to annual revenue (See Figure 11). These agreements, typically spanning 10–20 years, insulate the company from spot price volatility. By 2027, incremental PPA revenue is expected to exceed EUR 100 million, supporting the forecasted turnover of EUR 600 million (Encavis AG, 2024a).

Operational Excellence and Cost Control | Operational excellence is a key contributor to Encavis' profitability. In 2023, the implementation of real-time monitoring and predictive maintenance reduced downtime by 10%, saving EUR 7 million in operational costs. Stern Energy, the group's technical service provider, managed over 1 GW of assets with a 98% availability rate. Core operating expenses dropped to EUR 32,000 per MW, 5% below the previous year, demonstrating strong cost discipline across the portfolio (Encavis AG, 2024f).

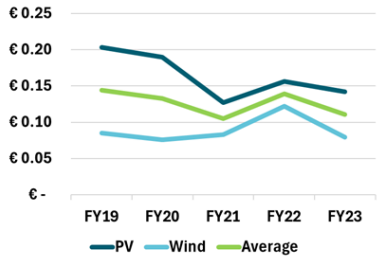
Favorable Regulatory and Market Conditions | Encavis benefits from stable regulatory frameworks in its core markets. Policies such as the European Union's REPowerEU plan, which aims to achieve 45% renewable energy consumption by 2030, align with Encavis' growth strategy. In 2023, regulatory support, including feed-in tariffs and capacity auctions, contributed EUR 150 million to revenue. Additionally, rising corporate demand for renewable energy supports Encavis' pipeline of long-term PPAs, ensuring steady growth in contracted revenues (Encavis AG, 2024a; European Commission et al., 2022).

3. Management and ESG

Management

Encavis' leadership team, composed of Dr. Christoph Husmann (CEO) and Mario Schirru (CIO/COO), has built a reputation for strategic foresight and operational discipline (See Figure 12). Over the past years, they have guided Encavis through a period of sustained expansion and transformation, culminating in the March 2024 agreement with KKR and Viessmann. The transaction marked a turning point: Encavis transitioned from public to private ownership, unlocking new avenues for growth by removing the structural funding limitations typical of a listed entity (Encavis AG, 2024g).

Figure 11 – Encavis Average Selling Price (€/MWh)



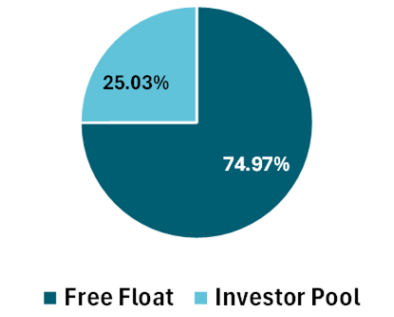
Source: *Encavis AG, 2024a*

Figure 12 – Management Board

Dr. Christoph Husmann
CFO/ Spokesman of the Management Board

Mario Schirro
Chief Investment Office (CIO)/Chief Operating Officer (COO)
Source: *Encavis AG, 2025a*

Figure 13 – Shareholder Structure as of 31/12/2023



Source: *Encavis AG, 2024a*

The deal was supported by key legacy shareholders, including Abacon Capital GmbH, who committed to rolling over their stakes into the newly formed consortium. Collectively, the consortium held around 31% of Encavis' shares at the time of the offer announcement (See Figure 13). This alignment of long-term investors with operational management ensures continuity in strategic vision (Encavis AG, 2024g).

Furthermore, Encavis' Supervisory Board comprises a majority of independent members, thereby strengthening governance transparency and oversight integrity (Encavis AG, 2024a). This independence reinforces the credibility of strategic decisions and mitigates conflicts of interest within the new ownership structure (Tricker, 2019).

Post-transaction, the company's ambitions were significantly raised: Encavis is now targeting 7 GW of installed capacity by year-end 2027, well above the original 5 GW goal (See Figure 14). Backed by KKR's Core Infrastructure Strategy and Viessmann's long-term investment philosophy, the management team is positioned to accelerate growth across all business segments, including digital infrastructure, battery storage, and emerging markets (Encavis AG, 2024g, 2024c).

Encavis' financial governance remains conservative despite its aggressive expansion. As of 2023, the company maintained an equity ratio of 33.2% and held EUR 375.6 million in cash. Management achieved EUR 234.9 million in operating cash flow in a challenging macroeconomic environment, highlighting strong internal financing capabilities. Operational excellence has been further enhanced by digitization efforts, such as predictive maintenance systems and real-time asset monitoring (Encavis AG, 2024a).

Transparent ESG reporting and ambitious goals, such as achieving carbon neutrality by 2040, strengthen Encavis' appeal to institutional investors and underline its role as a leader in sustainable energy (Encavis AG, 2024a).

Despite its strengths, Encavis' management faces challenges. While the current project portfolio remains largely insulated due to long-term PPAs and stable financing structures, rising interest rates and energy price volatility represent potential risks that must be carefully considered in light of future growth ambitions. In particular, the execution of its goal to exceed 5–7 GW of installed capacity by 2027 will require sustained acquisition efforts and operational scaling, which could increase exposure to these external factors. However, the team's proven track record of managing growth, coupled with its focus on financial discipline and innovation, positions Encavis well to navigate these challenges (Encavis AG, 2024g).

In conclusion, the management of Encavis AG has demonstrated exceptional strategic vision, operational efficiency, and financial acumen. By balancing ambitious growth targets with prudent risk management, the leadership ensures the company's continued success in the rapidly evolving renewable energy market. Encavis' management is well-equipped to deliver long-term value to shareholders while contributing meaningfully to Europe's energy transition.

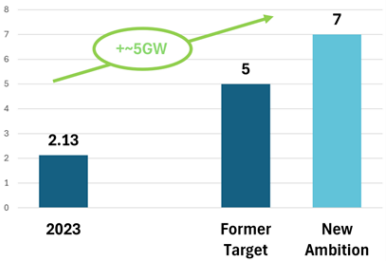
ESG Analysis

Environmental (E) | Encavis AG makes a significant environmental impact by operating renewable energy assets that contribute to reducing carbon emissions. In 2023, its wind and solar parks produced over 5.82 TWh of clean electricity, enough to supply approximately 1.5 million households, and helped avoid 1.3 million metric tons of CO_2 emissions (See Figure 15). Despite this strong operational impact, the company's Bloomberg Environmental Score stands at 1.50, which indicates limited ESG disclosure (see Figure 16).

Encavis has also made tangible progress in reducing its own carbon footprint. In 2023, total emissions declined by 12% (See Figure 17). This reduction was driven primarily by a 22% drop in capital goods emissions. The vast majority of its footprint are largely tied to its supply chain, especially in the manufacturing and installation of wind and solar systems.

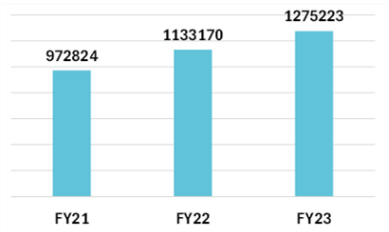
Looking forward, Encavis is committed to expanding its capacity to 5-7 GW by 2027, with a focus on low-carbon technologies like solar and onshore wind. Its projects are strategically located in regions with favorable environmental and regulatory conditions, ensuring both high efficiency and minimal ecological disruption (Encavis AG, 2024h, 2024a).

Figure 14 – Updated "Accelerated Growth Strategy 2027" by KKR (MW)



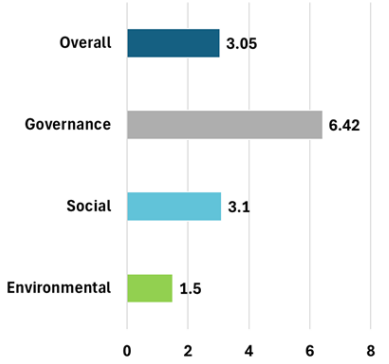
Source: *Encavis AG, 2024a*

Figure 15 – Encavis Carbon Emission Savings (t CO_2e)



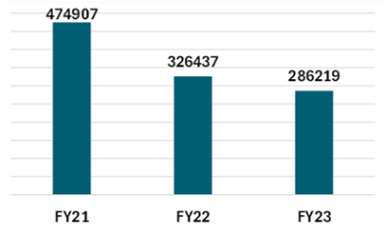
Source: *Encavis AG, 2023a*

Figure 16 – ESG Score Distribution



Source: *Bloomberg (Terminal), 2025*

Figure 17 – Encavis Carbon Emission (t CO_2e)



Source: *Encavis AG, 2023a*

Encavis is also transitioning to a subsidy-free business model, leveraging Power Purchase Agreements (PPAs) with private sector clients to deliver renewable energy directly (Encavis AG, 2022a; Renewables Now, 2021). This reduces dependency on government subsidies while promoting sustainable energy consumption patterns. Additionally, Encavis implements best practices for biodiversity protection and land use at its operational sites, ensuring harmony between energy production and the environment (Encavis AG, 2022b, 2024f).

Social (S) | Encavis AG's social strategy emphasizes stakeholder engagement, workforce well-being, and community development. The company maintains a robust safety record, ensuring that its operational sites adhere to stringent health and safety standards. In 2023, Encavis reported no major safety incidents, reflecting its commitment to providing a secure working environment for employees and contractors (Encavis AG, 2022c). However, the Bloomberg Social Score stands at 3.10, indicating that while certain social practices are in place, Encavis' external disclosure and measurable performance in this area remain limited (See Figure 16).

The company actively engages with local communities in regions where its renewable energy projects are developed. Through collaborations with municipalities, Encavis fosters job creation and regional economic development. Additionally, the company supports educational programs to raise awareness about renewable energy and sustainability among local populations (Encavis AG, 2025b).

Encavis is also committed to diversity and inclusion within its workforce (See Figure 18). As of 2023, women accounted for 30% of management roles, reflecting its efforts to promote gender equality (See Figure 19). The company invests in continuous training programs to enhance employee skills and align them with the evolving renewable energy sector (Encavis AG, 2023a).

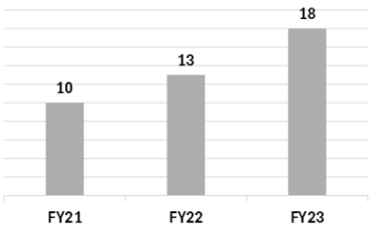
Governance (G) | Encavis AG demonstrates strong corporate governance practices, ensuring transparency, accountability, and alignment with shareholder interests. The company adheres to the German Corporate Governance Code and is overseen by an independent Supervisory Board with clearly defined reporting structures (Encavis AG, 2022d). Bloomberg assigns Encavis a Governance Score of 6.42, indicating an above-average level of governance disclosure and structure (See Figure 16). As firms with strong ESG branding face heightened scrutiny, Encavis' governance structure plays a key role in mitigating reputational risks. Robust internal controls and proactive disclosure practices are essential to maintaining credibility in this environment (Chao et al., 2025).

The board comprises individuals with diverse expertise in finance, energy, and sustainability, ensuring well-rounded decision-making. In 2023, Encavis maintained a 100% compliance rate with governance-related regulatory requirements. The board actively reviews ESG performance and integrates sustainability into strategic decisions, reflecting its commitment to long-term value creation (Encavis AG, 2024i). This governance approach not only secures internal alignment but also contributes to a broader "ESG peer effect," whereby Encavis' standards influence competitors to adopt similar sustainability practices (Feng et al., 2025).

Encavis emphasizes ethical business practices and risk management. The company conducts regular audits to ensure compliance with anti-corruption laws, data privacy regulations, and industry standards. It also provides detailed ESG disclosures in its sustainability report, aligned with the Global Reporting Initiative (GRI) and Task Force on Climate-related Financial Disclosures (TCFD) frameworks. Encavis plans to enhance transparency further by adopting the EU Taxonomy for sustainable activities (Encavis AG, 2024i).

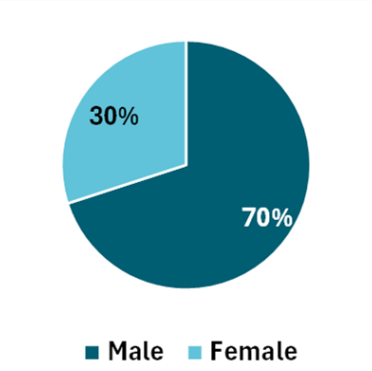
Challenges and Opportunities | Overall Encavis' ESG Score from Bloomberg is a 3.05, which reflects limited ESG disclosure and performance (See Figure 15). Complementary data from S&P Global further underscores this position, Encavis underperforms the industry median across most ESG dimensions, while only excelling in Product Stewardship (See Figure 20). Although the company's core business contributes positively to decarbonization, a more complete and transparent ESG strategy is needed to meet rising investor expectations.

Figure 18 – Encavis Number Nationalities Employed



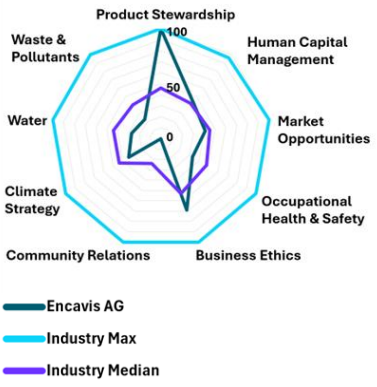
Source: *Encavis AG, 2023a*

Figure 19 – Gender Diversity in Management



Source: *Encavis AG, 2023a*

Figure 20 – Encavis ESG vs. Industry Performance



Source: *S&P Global, 2025*

Research suggests that firms with strong governance and social frameworks are more likely to enjoy valuation premiums (Gonçalves et al., 2023).

However, the pursuit of ESG goals must be balanced against financial stability, as aggressive carbon reduction strategies can increase earnings volatility (Lewandowski, 2017).

4. Industry Overview and Competitive Positioning

Global Economic Outlook

After expanding by a solid 3.3% in 2024, global real gross domestic product (GDP) growth is expected to slow slightly to 2.8% in 2025 and 3.0% in 2026, according to the International Monetary Fund (IMF) (see Figure 21). This slowdown is mainly driven by mounting geopolitical tensions, growing trade fragmentation, and climate-related disruptions (IMF, 2025).

Regional growth patterns are uneven. In North America, the U.S. economy is expected to grow by 2.7% in 2025, before slowing to 2.2% in 2026, reflecting the delayed effects of high interest rates and continued policy uncertainty. In the Eurozone, GDP is projected to rise by just 1.0% in 2025 and 1.4% in 2026, as industrial activity weakens and geopolitical tensions weigh on confidence. In Asia-Pacific, China remains the primary growth driver, with expansion rates of 4.6% anticipated for both years, supported by efforts to stabilize the property sector and strengthen domestic consumption (see Figure 22).

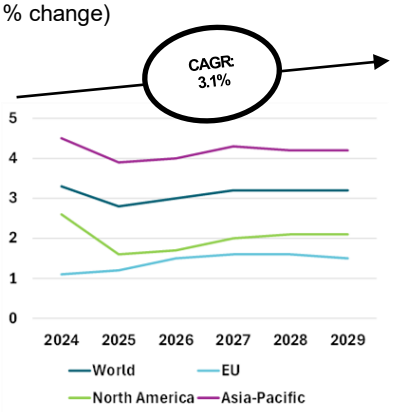
Global inflation continues to decline, with rates expected to fall from 5.0% in 2024 to 3.4% in 2025. Most advanced economies are on track to reach central bank targets of around 2% by year-end (see Figure 22) (OECD, 2024a). The European Central Bank (ECB) recently reduced its key interest rates by 25 basis points on January 30, 2025, setting the Deposit Facility Rate, the Main Refinancing Operations Rate and the Marginal Lending Facility Rate at 2.75%, 2.90% and 3.15% (See Figure 23). Unemployment in the euro area stood at 6.3% in October 2024, unchanged from the previous month and down from 6.6% a year earlier (Eurostat, 2024). These figures suggest a cautious monetary stance aimed at supporting disinflation without derailing labor market stability.

Global electricity demand is set to rise steadily, with the International Energy Agency (IEA) projecting average annual growth of 3.4% through 2026. This reflects ongoing economic recovery and accelerating electrification across sectors. Most of the increase will come from emerging Asia-Pacific economies, where industrial output and infrastructure investment continue to expand (see Figure 24) (IEA, 2024a).

Beyond regional macroeconomic trends, digitalization is playing an increasingly important role in shaping electricity consumption patterns. The sharp rise in demand for computing power—driven by artificial intelligence, cloud services, and blockchain applications—has led to an unprecedented expansion of data center infrastructure worldwide. These facilities are highly energy-intensive, not only due to the operation of servers but also because of the significant cooling requirements (IEA, 2024a). Deloitte (2024) estimates that electricity use by global data centers could double by 2030, placing additional pressure on energy systems and highlighting the urgent need for low-carbon electricity supply (Deloitte, 2024).

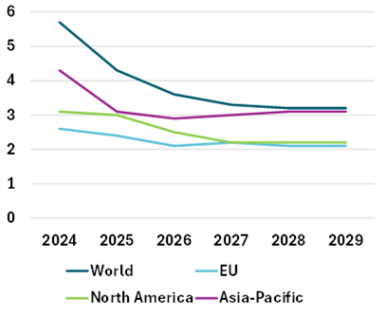
Despite slowing inflation and stable global growth, geopolitical risks and structural shifts continue to shape the macroeconomic landscape. In this context, renewables will be essential in meeting rising electricity needs—particularly as digitalization accelerates across sectors (Deloitte, 2024).

Figure 21 – Real GDP growth (Annual % change)



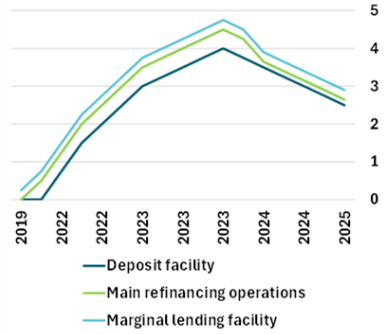
Source: *IMF, 2025*

Figure 22 – Inflation rate, average consumer prices (Annual % change)



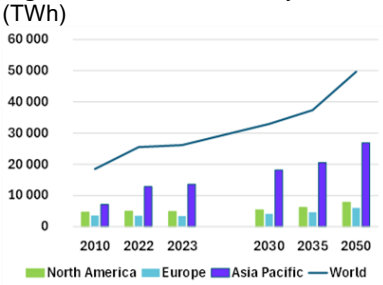
Source: *IMF, 2025*

Figure 23 – Key ECB interest rates (%)



Source: *ECB, 2025*

Figure 24 – Global Electricity Demand (TWh)



Source: *IEA, 2023*

Market Overview

Introduction | What began as a niche segment has evolved into a core component of the global energy mix. The renewable energy sector now holds strategic relevance in achieving long-term climate goals and ensuring stable energy supply. Its expansion is shaped by fast-moving technological progress, binding international climate commitments, and policy frameworks designed to reduce fossil fuel reliance. Renewables are no longer peripheral—they represent a significant share of global power generation, supported by both economic rationale and environmental urgency (see Figures 25 & 26) (IRENA, 2024).

Market Size and Growth | According to the International Renewable Energy Agency (IRENA), solar power reached 1,411 GW of installed capacity in 2023, making it the fastest-growing segment in the global energy market (see Figures 25 & 27). Wind energy follows with 1,017 GW, combining both onshore and offshore installations. With the biggest cumulative capacity historically and slower expansion compared to the seven years before, hydropower is still a steady and mature category with a capacity of 1,265 in 2023 (See Figure 27) (IRENA, 2024).

This expansion is largely cost-driven. Over the past decade, the levelized cost of electricity (LCOE) for onshore wind has fallen by more than 70%, while photovoltaic systems have seen a drop of over 80%. In many regions, these technologies now match or undercut the cost of fossil-based generation, shifting the economics decisively in favor of renewables (IRENA, 2025a; 2025b).

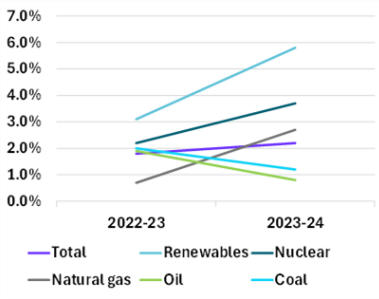
Global Trends | Renewable energy sits at the center of the global shift away from fossil fuels. Across regions, governments have introduced legally binding targets for net-zero emissions, anchored in the Paris Agreement. The Paris Agreement is a landmark international treaty adopted in 2015 that aims to limit global warming to well below 2°C, preferably to 1.5°C, above pre-industrial levels (United Nations, 2015). This has prompted the creation of laws like the US Inflation Reduction Act and the EU's REPowerEU initiative. In Asia, China has emerged as the dominant force in renewable deployment, channeling substantial capital into wind, solar, and emerging areas such as green hydrogen. Corporate demand is also gaining momentum: in 2023, PPAs surpassed 36 GW globally, a 20% increase year-over-year (European Commission et al., 2022; IEA, 2024b).

Technology innovation is essential for promoting growth. New technologies like floating offshore wind platforms, scalable green hydrogen production, and advanced bioenergy systems are moving from pilot to commercial stages. Lithium-ion batteries have become crucial for energy storage systems in order to integrate renewables into grids and solve the intermittent problem that solar and wind power present (IRENA, 2024).

Opportunities | The renewable energy sector continues to open up substantial opportunities for both capital deployment and technological advancement. Hybrid systems that combine solar, wind, and storage are gaining traction for their ability to deliver more stable output and reduce pressure on existing grids. In regions with limited transmission infrastructure, decentralized solutions such as rooftop solar and community-based energy projects are becoming increasingly viable, offering greater energy autonomy at the local level. Green hydrogen has emerged as a strategic component of the energy transition, enabling the decarbonization of hard-to-electrify sectors like heavy industry and transport. At the same time, mechanisms such as carbon credits and emissions trading schemes are creating new financial incentives for project developers, further accelerating the rollout of clean energy infrastructure (Murphy et al., 2021).

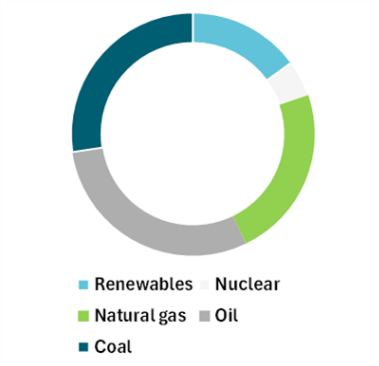
Challenges | Even as the sector grows, it continues to face significant structural and political hurdles. One persistent challenge is the integration of variable sources like wind and solar into power grids not built for intermittent supply. This requires large-scale investment in flexible infrastructure, including storage capacity and smart grid technologies. Large projects are also

Figure 25 – Global energy supply growth rate



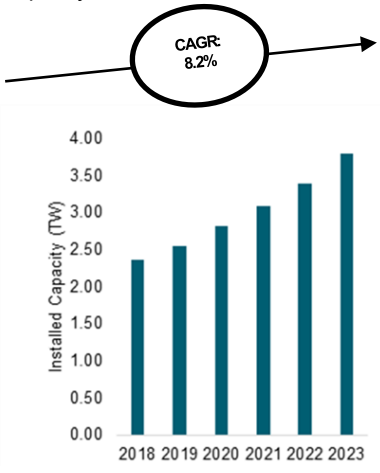
Source: *IEA, 2023*

Figure 26 – Global energy supply by Segment



Source: *IEA, 2023*

Figure 27 – Renewables Installed Capacity Evolution



Source: *IRENA, 2024*

constrained by land use conflicts and environmental concerns, particularly regarding biodiversity and the impact on local ecosystems. Risks in the renewable energy value chain have been brought to light by geopolitical conflicts and supply chain disruptions, especially for crucial minerals like rare earth elements used in solar panels and wind turbines (See Figure 28) (Barth et al., 2024; Breitenbach, 2022).

Financing remains another major bottleneck, especially in emerging markets where political uncertainty and limited access to affordable capital deter long-term investment. While industrialized countries have benefited from supportive regulation and public incentives, many developing regions lack the institutional frameworks needed to scale clean energy deployment at pace (See Figure 28) (IEA et al., 2021).

In the United States, a shift toward more conservative leadership has already signaled a potential reversal in renewable energy policy. Policies that aided in the expansion of renewable energy sources, including tax credits and subsidies, may be reduced or eliminated if the emphasis shifts to less government involvement. A weaker regulatory stance may also ease restrictions on fossil fuels, undermining momentum in clean energy investment. These developments could introduce policy uncertainty, slow project pipelines, and complicate efforts to meet long-term climate targets (See Figure 28) (Holland & Knight, 2025; The White House, 2025).

Figure 28 – Renewable Energy Sector Risks

Source: *EY-Parthenon, 2024*

Policy and Regulation | Policy remains one of the most influential levers behind the global rollout of renewable energy. Many governments have committed to ambitious climate targets under frameworks like the Paris Agreement and the Sustainable Development Goals, translating these into concrete national objectives (See Table 2). Instruments such as tax credits, feed-in tariffs, and carbon pricing have played a major role in reducing investment barriers and attracting capital into the sector. At the same time, efforts to improve grid access and simplify permitting have helped shorten project timelines and increase execution rates (Tryndina et al., 2022; United Nations, 2015).

Companies are accelerating the shift toward renewables, driven by a mix of cost savings, regulatory pressure, and rising expectations from investors and stakeholders around ESG performance. PPAs and on-site generation are becoming standard tools in corporate decarbonization strategies (See Figure 29). Access to finance remains a critical challenge, particularly in emerging markets where high capital costs and political uncertainty continue to discourage long-term investment. While mature markets benefit from clear policy direction and financial incentives, the absence of comparable support structures elsewhere has deepened global disparities in renewable energy uptake (IBM Envizi, 2021; World Economic Forum, 2025).

Policy also shapes how much companies invest in innovation. Although EU regulations promote research and development (R&D) in principle, evidence suggests that broader climate agreements, such as the 2030 targets, have done little to raise R&D intensity in the power sector. This shows the need for more targeted mechanisms to encourage technology development in renewables (Estevão et al., 2024).

Table 2 – Timeline of Key International Climate and Energy Agreements

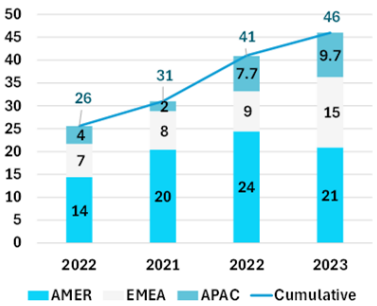
1997	**Kyoto Protocol (UN)**	First international treaty with binding targets for reducing greenhouse gas
2008	**First EU Climate and Energy Package**	The "20-20-20" targets
2015	**Clean Power Plan (USA)**	Regulatory initiative under President Obama aimed at reducing CO?
2015	**Paris Agreement**	Landmark global climate accord adopted at COP21 in Paris
2019	**European Green Deal**	EU strategy to achieve climate neutrality by 2050
2020	**China 2060 Carbon Neutrality Pledge**	China's announcement to become carbon-neutral by 2060
2021	**Fit for 55 Package (EU)**	A legislative package aimed at reducing EU greenhouse gas emissions by 55%
2022	**Inflation Reduction Act (USA)**	The largest climate investment in U.S. history
2022	**REPowerEU Plan**	Introduced in response to the war in Ukraine, REPowerEU aims to end the
2023	**COP28 (Dubai)**	Global agreement to "transition away from fossil fuels"

Source: *Author's Analysis*

Technological Insights | Technological progress continues to expand the potential of renewable energy, making systems more efficient and scalable. Innovations such as offshore wind farms and floating solar installations are enabling deployment in regions where land is scarce or development is otherwise constrained. At the same time, advances in battery storage are playing a central role in managing grid fluctuations and improving the reliability of variable power sources like wind and solar. Ongoing research into materials and manufacturing techniques is helping to cut costs while improving system performance (Estevão et al., 2024).

Green hydrogen is also drawing increasing attention as a versatile energy carrier, particularly for sectors that are difficult to electrify, such as steel production and heavy transport. Backed by public funding and a growing number of demonstration projects, the technology is steadily moving toward commercial-scale viability (Estevão et al., 2024).

Figure 29 – Corporate PPA Volumes by Region (GW)



Source: *BloombergNEF, 2024*

Regional Insights | Europe's renewable energy sector benefits from a strong regulatory foundation and substantial public funding, supported by initiatives like the Green Deal and REPowerEU. The region continues to expand solar PV deployment and holds the largest offshore wind capacity in the world (European Commission et al., 2022). In North America, the Inflation Reduction Act has triggered a rapid rise in clean energy investment, particularly in onshore wind and large-scale solar projects (American Clean Power, 2024). China remains the dominant player in Asia, accounting for the majority of new solar, wind, and hydropower installations. Meanwhile, countries in South America and Africa are increasingly tapping into their natural resource potential, despite persistent challenges related to infrastructure and access to capital (IEA, 2024c).

Conclusion | The renewable energy market is undergoing a transformative shift, shaped by rapid technological progress, favorable policy environments, and a growing global push toward decarbonization. Although the industry has seen remarkable expansion in recent years, challenges such as grid integration, supply chain vulnerabilities, and political uncertainties remain pressing concerns. Even so, developments in storage technologies, hybrid systems, and green hydrogen are opening new paths for strengthening the sector's long-term resilience. The pace and direction of this transition will depend heavily on regulatory clarity, sustained corporate engagement, and access to well-structured financial support. As decarbonization efforts accelerate, maintaining investor confidence and ensuring consistent policy frameworks will be key to staying on course for global climate targets (Estevão et al., 2024; IRENA, 2023).

Demand Drivers

Electricity demand in the energy sector is shaped by a range of factors that influence how power is consumed, priced, and distributed. These dynamics affect every stage of the electricity value chain and are central to the system's performance, stability, and long-term sustainability.

On a global perspective, according to EY-Parthenon in 2024, the main demand drivers are (See Figure 30):

- Expectations of future prices
- Price of Substitute Goods
- Price of Complementary Goods
- Consumer Preferences
- Buyer's Income

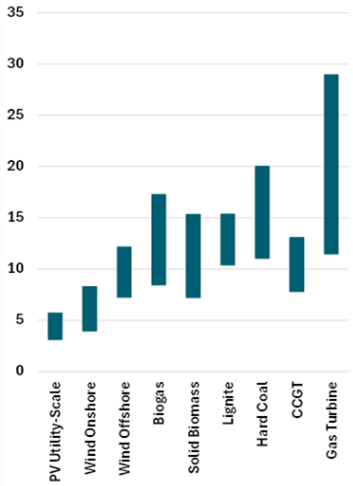
Expectations of future prices | One key driver of electricity demand is price expectation. When consumers or industries anticipate rising electricity prices, they often adjust their behavior accordingly. Households might unplug devices or rely more on natural light, while businesses may delay energy-intensive operations. Conversely, if prices are expected to fall, industrial users in particular may ramp up production to take advantage of lower energy costs and improve overall efficiency (Csereklyei, 2020).

Price of Substitute Goods | In the renewables sector, the main sources of competition remain conventional power generation, through fossil fuels, coal and nuclear power (See Figure 31). With this knowledge, it gets clear that if demand rises and utilities are forced to rely on substitute sources outside of renewables, the cost of electricity typically increases. This can raise prices for end consumers and, in turn, reduce overall demand. Since renewables are not always available on demand, utilities often depend on so-called "base load" power (meaning power on demand services, usually generated from non-renewable sources). This reliance contributes to higher average electricity prices passed on to consumers (ExxonMobil, 2024).

Figure 30 – Renewable Energy Demand Drivers

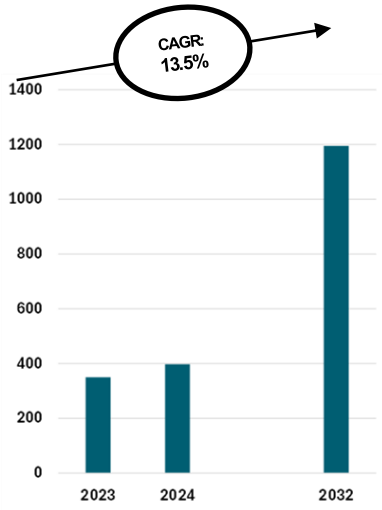
Source: *EY-Parthenon, 2024*

Figure 31 – LCOE (€/kWh) by Technology



Source: *Fraunhofer ISE, 2021*

Figure 32 – Big Data Market Size Evolution ($bn)



Source: *Fortune Business Insights, 2024*

Price of Complementary Goods | The rapid spread of digital technology across all areas of society has become a key driver of electricity demand. The widespread use of computers, smartphones, Internet of Things (IoT) devices and especially data centers is pushing consumption steadily upward (See Figure 32). Cloud computing and big data applications, in particular, have triggered a sharp rise in energy use by data centers. As the cost per unit of computing decreases, the number of data centers is expected to grow further, amplifying electricity demand. The the other hand, if the price of complementary goods increases, the demand of renewable energies will decrease (ExxonMobil, 2024).

Consumer Behavior and Lifestyle Changes | Shifts in consumer behavior and lifestyle have a direct impact on electricity demand. The move toward larger living spaces, greater reliance on electronic devices, and rising demand for air conditioning, particularly in developing economies, are all contributing to higher energy consumption. At the same time, increased awareness of environmental concerns and the push for sustainability are encouraging more efficient energy use, with households and businesses adopting conservation measures and energy-saving technologies (ExxonMobil, 2024).

Buyer's Income | Changes in household income directly influence energy consumption patterns. As disposable income rises, consumers are more likely to increase their electricity use, whether through the purchase of additional appliances, increased use of existing devices, or less attention to conservation. Conversely, a drop in income often leads to cost-cutting measures, including reduced energy use and a shift toward more efficient consumption habits. These behavioral adjustments reflect the close link between economic conditions and household energy demand (Csereklyei, 2020).

Supply Drivers

Electricity supply is influenced by a range of factors that determine how efficiently, affordably, and sustainably power can be produced and delivered. These forces shape every stage of the electricity value chain, which consists of four interconnected phases, each subject to its own set of technical, economic, and regulatory drivers that collectively impact the performance of the broader energy system (See Figure 33) (IEA, 2024a):

- Generation: Responsible for producing energy through fossil fuels, nuclear and renewable sources.
- Transmission: High voltage transfer of electricity from power plants to substations, where the electricity is then distributed, usually a natural monopoly.
- Distribution: Transference of electricity through lower voltage distribution networks to households, businesses, and industries.
- Commercialization: Selling electricity to end consumers. It encompasses billing, customer service, and energy management services.

The spot price of electricity is set in real time through the intersection of demand and the marginal cost of supply. Power plants are dispatched in order of ascending marginal cost, meaning that low-cost sources like renewables and nuclear typically meet the base load. During periods of increased demand, particularly at peak times, higher-cost generation units, such as natural gas and coal-fired plants, are utilized. Consequently, the marginal cost of the last unit required to satisfy demand dictates the spot price, reflecting the most expensive generation source in operation at that moment (Borenstein et al., 2002; Stoft, 2002).

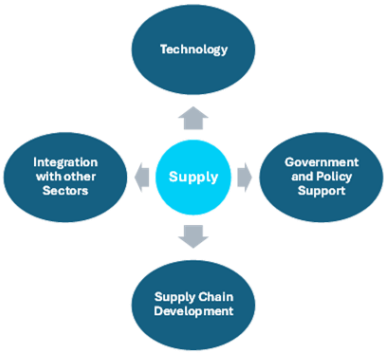
Considering all of this, the key supply drivers currently affecting the renewable energy sector are (See Figure 34):

Technology | Technological progress remains one of the key forces driving growth in the renewable energy sector (IEA, 2023). Innovation has sharply reduced production costs, particularly in solar and wind. Advances in photovoltaic technology have made solar panels

Figure 33 – Value Chain phases (e.g. Germany)

Source: *Author's Analysis*

Figure 34 – Renewable Energy Supply Drivers



Source: *EY-Parthenon, 2024*

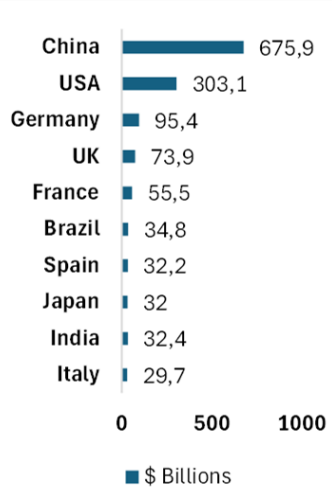
both cheaper and more efficient, while improvements in materials and turbine design have lowered the cost of wind power, especially for large-scale offshore installations. As these technologies continue to evolve, further cost reductions are expected, strengthening renewables' competitiveness against fossil fuels. These developments have also made small-scale energy generation more accessible, enabling households to produce their own electricity through rooftop solar or small wind systems (IEA, 2023; Laurie, 2023).

Government and Policy Support | Public policy remains a decisive factor in driving the expansion of renewable energy and meeting climate objectives (See Figure 35). Within the European Union, the Renewable Energy Directive mandates that at least 42.5% of total energy consumption must come from renewable sources by 2030 (See Figure 36) (European Commission, 2023). In the United States, the Investment Tax Credit (ITC) has been a key mechanism for accelerating solar adoption by providing a 30% tax credit on installation costs across residential and commercial sectors. India has taken an assertive approach, targeting the deployment of 500 GW of non-fossil capacity by 2030 (IRS, 2025). Meanwhile, Brazil, a global leader in hydropower, has introduced policies such as the PROINFA program (Incentive Program for Alternative Energy Sources) which supports wind and biomass energy and encourages public-private partnerships for renewable energy projects (IEA, 2024d). However, any rollback or delay in these support mechanisms could severely slow the sector's momentum, as many projects depend on fiscal incentives to be economically viable. Without this backing, renewables risk being outcompeted by lower-cost fossil fuels, potentially jeopardizing progress toward decarbonization targets.

Supply Chain Development | The supply chain for renewable energy technologies is fundamental to the sector's expansion, supporting cost efficiency and availability at scale. Yet, as the global rollout of renewables accelerates, these supply chains face growing pressure. Challenges include not only scaling production but also ensuring long-term sustainability and resilience. A central issue lies in securing critical raw materials, such as silicon, cobalt, lithium, and rare earth elements, that underpin solar, wind, and battery technologies. Manufacturing capacity must grow in tandem to meet rising demand for solar panels, wind turbines, and energy storage systems, while logistics and transport infrastructure must also keep pace. Energy storage, in particular, is becoming an essential component, with battery development playing a pivotal role in stabilizing renewable power supply. Looking ahead, geopolitical developments, including trade tensions, tariffs, and resource nationalism, will significantly shape how these supply chains evolve. For instance, U.S.-China trade disputes have resulted in tariffs on solar panel imports, contributing to higher prices and a slowdown in deployment (IEA, 2023; Karali et al., 2022).

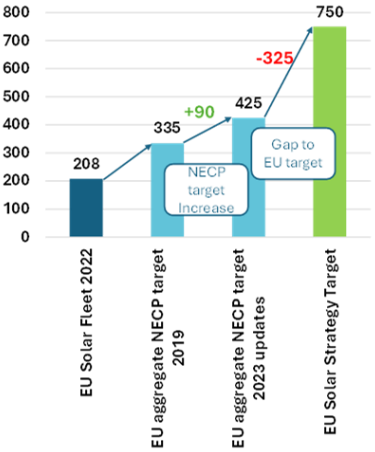
Integration with other Sectors | The integration of renewable energy across sectors plays a pivotal role in accelerating both utility-scale and individual adoption. By linking energy generation with industries such as transport, real estate, manufacturing, and agriculture, these cross-sector synergies promote greater efficiency, enable new business models, and strengthen energy resilience. One of the most impactful intersections is the alignment of renewables with electric mobility. As demand for electric vehicles (EVs) continues to grow globally, coupling clean power generation with transportation infrastructure is becoming increasingly essential (See Figure 37). Energy-efficient buildings represent a vital pillar of the renewable energy ecosystem. By integrating clean energy technologies with advanced efficiency standards, modern residential and commercial structures are increasingly capable of producing more energy than they consume. In parallel, the waste management sector is leveraging renewable technologies to convert waste into usable energy, reinforcing the shift toward a circular economy and reducing overall environmental impact (Jones et al., 2023; N. V. A. Ravikumar et al., 2023).

Figure 35 – Investments in the energy transition worldwide, 2023



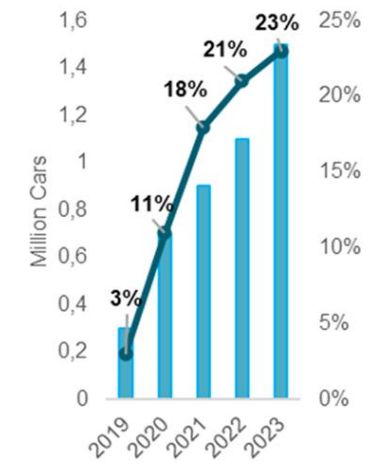
Source: *Statista, 2024*

Figure 36 – National solar ambition vs. EU solar ambition (GW)



Source: *SolarPowerEurope 2023*

Figure 37 – Europe Electric Vehicles (EV) Sales (gross and % total cars)



Source: *European Environment Agency, 2024*

Competitive Positioning

The European energy sector is undergoing a profound structural transformation, shaped by the transition to renewables, evolving regulatory frameworks, and growing geopolitical complexity. The industry is focused on high competition by large players that operate across the value chain, from generation to distribution and retail. The major companies in the region include E.ON in Germany, EDF in France, Enel in Italy, Iberdrola in Spain, and Ørsted in Denmark. Market liberalization has intensified pressure in the retail electricity and gas segments, while transmission and distribution remain natural monopolies under regulatory oversight. At the same time, the global shift toward decarbonization has created room for new entrants, particularly in renewable energy generation and enabling technologies (Busch et al., 2023). The competitive structure of the industry can be evaluated through Porter's Five Forces framework (see Figure 38 and Appendix 1), which highlights the strategic relevance of entry barriers, supplier and buyer power, substitute threats, and inter-firm rivalry. Complementary insights are provided by a SWOT analysis (see Appendix 2), which outlines the sector's internal strengths and weaknesses as well as external opportunities and threats.

Encavis operates as an independent power producer (IPP), focusing on utility-scale solar and wind parks across Western Europe. Unlike vertically integrated utilities such as E.ON or Iberdrola, Encavis specializes in the generation segment, leveraging long-term Power Purchase Agreements (PPAs) and a Buy & Hold strategy (Encavis, 2024a). This narrow focus allows Encavis to maintain a relatively lean cost structure and stable cash flows, but also exposes the firm to concentration risks in regulatory and weather-sensitive markets.

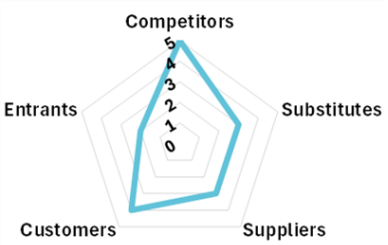
Compared to peers, Encavis' competitive positioning is defined by its strong project execution track record, prudent financial management, and growing strategic partnerships (Encavis, 2021b). However, its scale remains significantly smaller than that of traditional incumbents, limiting economies of scale in procurement and innovation. The company's ESG profile, with an overall score of 3.05, suggests room for improvement relative to best-in-class peers.

A major driver of industry change is the accelerating deployment of utility-scale wind and solar power, supported by decreasing LCOE and ambitious policy frameworks such as the European Green Deal and REPowerEU. Companies with diversified and scalable renewable portfolios are increasingly advantaged in this environment (European Commission et al., 2022; United Nations, 2015). At the same time, technological innovation and research & development in areas like battery storage, hydrogen production and smart grids are becoming crucial for competitiveness (IEA, 2023). The regulatory environment, including instruments like carbon pricing and emissions targets, creates both strategic constraints and new opportunities, particularly for companies agile enough to realign their asset base and operating models. The rise of prosumers generating their own electricity through distributed technologies, coupled with the growing demand for energy efficiency and smart solutions, is also redefining competition. Firms capable of offering tailored, data-driven energy services are increasingly gaining market share (European Commission, 2023).

Meanwhile, a broader analysis of the sector's macroenvironment, as captured in a PESTEL (Political, Economic, Social, Technological, Environmental and Legal) framework (see Table 3 and Appendix 3), reveals a range of external pressures. Among the most significant is the high capital intensity of the industry, which poses structural barriers for smaller actors and limits overall market fluidity. Large-scale investments are not only required for new projects but also for retrofitting legacy systems to comply with decarbonization objectives.

In addition, price volatility, both from fossil fuel markets and the intermittency inherent in renewable sources, challenges revenue stability and complicates long-term planning (European Commission, 2024). The sector is also facing a systemic transformation of its workforce. The transition to renewable energy and digital infrastructures requires significant reskilling, creating organizational and cost-related pressures for both incumbents and

Figure 38 – Porter´s Five Forces



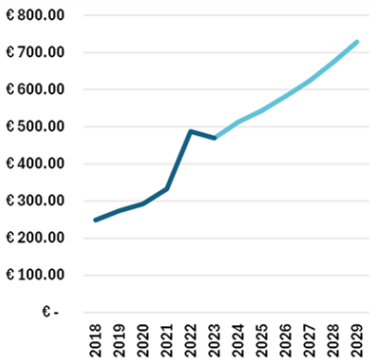
Source: *Author's Analysis; Appendix 1*

Table 3 – PESTEL Analysis

IMPACT	LOW	MEDIUM	HIGH
P	EU Licensing Acceleration		
Political			European Green Deal & REPowerEU Targets
E	Supply Chain Volatility		
Economic			Volatile Fossil Fuel Prices
S	Growing Prosumers / Energy Awareness		
Social			Demand for Energy Efficiency & Decarbonization
T	Grid Digitalization, Smart Meters		
Technological			Battery Storage & Hydrogen Innovation
E	Wildlife Protection Rules		
Environmental	Biodiversity Impact Assessments		
			Climate Change Commitments
L			Taxonomy Regulation & Carbon Pricing
Legal			Emissions Trading System (ETS) Reforms

Source: *Appendix 3*

Figure 39 – Encavis PPA-Driven Revenue Growth (€mio)



Source: *Encavis AG, 2024a*

newcomers (OECD, 2024b). Overall, the European energy market is shaped by a unique combination of regulatory, technological, and structural forces, and its future trajectory will depend on how effectively companies can align with these evolving shifts.

5. Investment Summary

Encavis AG represents a structurally attractive asset in the European renewables sector, underpinned by predictable cash flows and a scalable project pipeline. The Hamburg based IPP, with a focus on solar and wind parks, has built a resilient, scalable platform supported by long-term PPAs, ensuring predictable cash flows over 10-20 years and reducing exposure to spot electricity price fluctuations (See Figure 39). The ongoing transition to subsidy-free revenue streams supported by a roadmap toward 5-7 GW by 2027 positions Encavis as a long-term beneficiary of the decarbonization trend (IRENA, 2024).

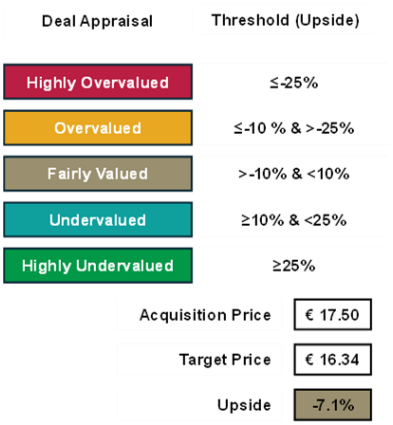
The public takeover offer by KKR at €17.50 per share implies a 30.3% premium to the unaffected market price of €13.43 (03/14/2024) and a 7.1% premium to our intrinsic valuation, of €16.34 per share (See Figure 40). Under German takeover law (WpÜG §31), the offer price must at least match the highest consideration paid by the bidder (or parties acting in concert) during the six months preceding the announcement. In this case, the €17.50 offer equals the highest price paid in the market by the bidding consortium and complies with the legal minimum requirements (Bundesrepublik Deutschland, 2001). The offer falls within the "fairly valued" range, meaning the bid is not based on a significant undervaluation but reflects a price consistent with fundamentals. From a valuation standpoint, Damodaran (2012) stresses that fair value does not imply a single precise number but rather a reasoned estimate within a plausible range, grounded in consistent assumptions. Importantly, KKR's investment thesis likely includes expected synergies with its broader renewables portfolio, leveraging operational efficiencies, shared expertise, and platform scaling, none of which are fully reflected in standalone valuations (KKR, 2024b). This strategic dimension helps justify a premium without suggesting the current market mispriced Encavis materially.

Valuation Methodologies | The intrinsic valuation is built on a DCF model using the FCFF approach, since it's forward-looking and embeds all the assumptions underlying the company and the overall industry. Under the base-case scenario, a weighted average cost of capital (WACC) of 5.2% and a terminal growth rate of 2% is assumed, leading to a fair value estimate of €16.34 per share. Additionally, a Comparable Trading Analysis using the SARD (Sum of Absolute Rank Differences) method. The analysis supports a valuation premium for Encavis, as the company trades at an Enterprise Value to EBITDA (EV/EBITDA) multiple of 12.8x, well above the peer median of 9.8x, driven primarily by its superior cash flow stability and ESG positioning.

Financial Position | Encavis AG's current financial position reflects a solid operational foundation but limited financial flexibility due to its capital-intensive growth strategy (See Figure 41). As of 2023, the company reported €469.64 million in revenue and an EBITDA margin of approximately 71%. Net income reached €58.73 million. However, the balance sheet is moderately leveraged, with a net debt/EBITDA ratio of 5.2x in 2023. While current cash flows comfortably cover operating costs and debt service, the growth trajectory depends heavily on external financing, exposing the firm to refinancing and interest rate risk.

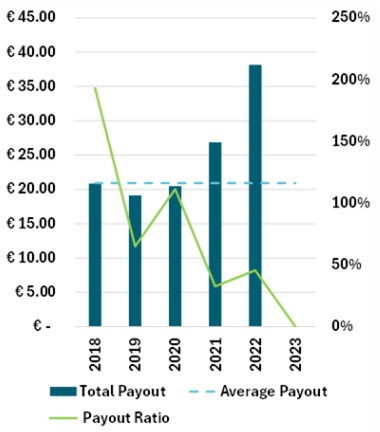
ESG | From an ESG perspective, Encavis AG is strategically positioned. Its low-carbon profile provides a structural advantage in a market increasingly penalizing carbon-intensive peers (Mollick et al., 2024). Encavis received a Bloomberg environmental score of 1.50 and a social score of 3.10, indicating limited disclosure and relatively weak performance in these areas. In

Figure 40 – Appraisal Threshold



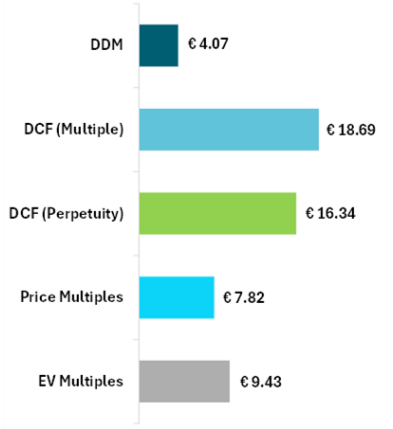
Source: *Author's Analysis; Damodaran, 2012*

Figure 41 – Dividend Payout History (€mio)



Source: *Encavis AG, 2024a; Author's Analysis*

Figure 42 – Summary of methodologies for the share price target



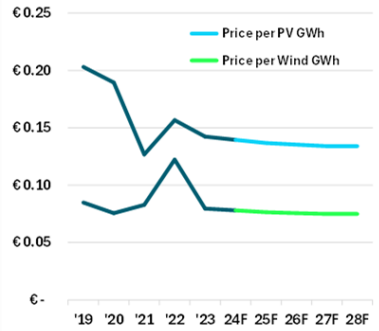
Source: *Author's Analysis*

contrast, the governance score of 6.42 points to institutional maturity and sound oversight structures.

Academic research shows that ESG-aligned firms attract valuation uplifts, but warn that these premiums are contingent upon maintaining governance credibility (Chao et al., 2025; Lewandowski, 2017). Under private equity ownership, this shift introduces risk. KKR must ensure further ESG improvement and transparency to prevent reputational erosion and multiple contraction. Furthermore, it is argued that financing cost optimization is essential to preserving the value benefits of sustainability leadership (Gonçalves et al., 2022).

Key Investment Risks | Despite a compelling long-term outlook, risk factors such as financing constraints, regulatory complexity, and execution uncertainty remain material. These risks could be amplified under a private equity structure, especially if short-term return targets override long-term ESG and capital allocation priorities.

Figure 43 – Price per MWh Development



Source: *Author's Analysis*

6. Valuation

To assess the intrinsic value of Encavis AG, a multi-method valuation approach is applied. The primary valuation tool was a **DCF model** using **FCFF** and the **perpetuity method**, supported by a **trading multiples analysis**. Additionally, alternative methods were considered but excluded from the final recommendation due to their limited relevance in this context (See Figure 42).

Discounted Cash Flow (DCF) Valuation

The DCF analysis evaluates Encavis AG's value using its forecasted future free cash flows, discounted to their present value using the WACC. For this analysis, Encavis' cash flows over a forecast period of 5 years (2024-2028) is projected, based on reasonable growth assumptions and operational efficiency trends (See Appendix 4).

Key assumptions include a renewable energy demand growth rate of 9.1% Compound Annual Growth Rate (CAGR) (IEA, 2024b), reflecting the company's capacity expansion and stable PPA-driven revenues, and an operating EBITDA margin of approximately 70%, in line with historical performance and decreasing Energy Prices (See Figure 43). Capital expenditures (CapEx) are assumed at 35%-45% of revenues (moving average of 5 years) to support the ongoing growth strategy, while a terminal growth rate of approx. 2% reflects a conservative long-term outlook (See Appendix 5).

WACC | The WACC used in the DCF model is 5.2%, reflecting Encavis' relatively low-risk profile and stable cash flows from PPAs. The WACC was derived using a capital structure consisting of 61.3% debt and 38.7% equity, in line with the book values, as market values of debt were not observable (See Table 4).

The cost of equity was calculated using the Capital Asset Pricing Model (CAPM) (See Appendix 7). A risk-free rate of 2.75% (German 10-year Bund as of 31/03/2024), a market risk premium (MRP) of 5.1% (Damodaran, 2023), and a levered beta of 0.97 is estimated (See Table 5 and 6). The beta is derived from an average of comparable companies in the renewables sector (See Appendix 8). The average levered beta of the selected peers stands at 0.46, slightly below the industry beta of 0.47 as published by Damodaran; Encavis, with its stable and long-term secured cash flows from PPAs, is exposed to even lower risk (Damodaran, 2025).

Additionally, the German country risk premium (CRP) of 0% was applied (Damodaran, 2023). The implied **cost of equity** is 6.31%.

The pre-tax cost of debt was estimated at 5.1%, using interest expense in 2023 relative to total debt. Applying a 30% German corporate tax rate, this results in an **after-tax cost of debt** of 3.6% (See Appendix 9).

Table 4 – WACC Calculation

Cost of Equity		
Risk Free Rate		2.8%
Equity Risk Premium		4.9%
Country Risk Premium Germany		–
Cost of Equity		7.70%
Cost of Debt		
Pre-Tax Cost of Debt		5.1%
Tax Rate		30.0%
After-Tax Cost of Debt		3.6%
WACC	**Weight**	**Cost**
Debt Capital	61.3%	3.6%
Equity Capital	38.7%	7.7%
WACC		**5.2%**

Source: *Author's Analysis; Appendix 6*

Table 5 – Equity Risk Premium

Risk Premium for Equity	
Market Risk Premium Germany	5.1%
Average Unlevered Beta	0.46
Levered Beta	0.97
Equity Risk Premium	**4.9%**

Source: *Author's Analysis; Appendix 7*

Table 6 – Beta

Peers	**Levered Beta**	**Unlevered Beta**
EDP SA	0.82	0.40
CEZ AS	1.04	0.68
ERG SPA	0.56	0.20
SCATEC ASA	0.96	0.45
VOLTALIA SA- REGR	0.8	0.75
ENERGIEKONTOR AG	0.7	0.27
AVERAGE	**0.81**	**0.46**

Source: *Author's Analysis; Appendix 8*

These inputs together produce a WACC of 5.2%, which is considered an appropriate discount rate to value Encavis' contracted and development-stage renewable energy portfolio (See Table 6).

Combining the present value of forecasted cash flows and the terminal value, Encavis AG's Enterprise Value (EV) is estimated at approximately €4,367.69 million. After adjusting for net debt of €1,736.38 million, the equity value is derived, which translates to an implied share price of €16.34 per share. (See Appendix 4)

Market-Based Valuation

To complement the intrinsic valuation, a market-based valuation is conducted using trading multiples from a carefully selected peer group. Two commonly used metrics were applied, the **EV/EBITDA** and **Price-to-Earnings (P/E)**. By applying a dual-multiple approach, we derive a triangulated valuation grounded in both operating performance and net income.

Peer Group | The peer group was identified using the **SARD** methodology, which selects companies whose valuation ratios most closely match those of the target company (See Appendix 10). This systematic approach ensures the relevance and comparability of the selected peers. The final group includes EDP SA, CEZ AS, ERG SPA, Scatec ASA, Voltalia SA-REGR and Energiekontor AG. They all are pure-play or near-pure-play renewable energy developers and operators with a focus on solar and wind (Knudsen et al., 2017).

Using the **EV/EBITDA** multiple, and applying the sector average to Encavis' projected EBITDA for FY2023, a fair value per share of €9.43 is derived (Table 7).

Using the **P/E multiple**, applying the median peer value to Encavis' FY2023 earnings per share (EPS), a valuation of €7.82 per share is derived (Table 7).

The Market-Based Approach highlights how Encavis AG is valued relative to its peers, providing a real-world benchmark for comparison (See Table 7).

Alternative Valuation Approaches

Dividend Discount Model | Encavis has a dividend policy; however, its payout ratios vary and do not fully reflect the company's long-term reinvestment strategy (See Figure 41). Therefore, the DDM undervalues Encavis' growth potential and is not considered reliable for strategic valuation purposes (See Appendix 12).

Net Asset Value | NAV based on the book value of Encavis' assets was considered, but it fails to capture the earnings power and value creation from long-term contracted cash flows and project development activities. As such, the NAV significantly undervalues the company from an investor's perspective.

7. Financial Analysis

Revenue and Profitability | Encavis AG has demonstrated strong revenue growth over the last five years, increasing from €248.79 million in FY18 to €487.34 million in FY22 before stabilizing at €469.64 million in FY23 (See Figure 44). The forecasts anticipate revenues to grow steadily to €728.27 million by FY28E, driven by capacity expansions and new PPAs (Appendix 13).

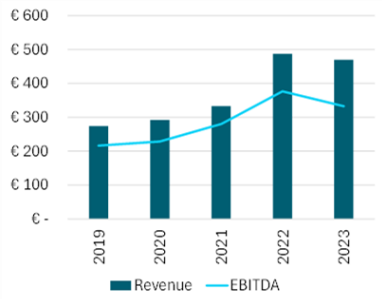
EBITDA grew from €195.33 million in FY18 to a peak of €376.50 million in FY22, with margins remaining robust despite a temporary decline to €332.67 million in FY23 (See Figure 44; for a proportional analysis of income statement trends, see Appendix 14). EBITDA is projected

Table 7 – Share Price Market-Based Valuation

	EV / EBITDA	P / E
Damodaran	€ 11.45	€ 6.29
Average	€ 9.43	€ 7.82
Median	€ 9.98	€ 6.81
Maximum	€ 17.03	€ 15.29
Minimum	€ 0.06	€ 4.54

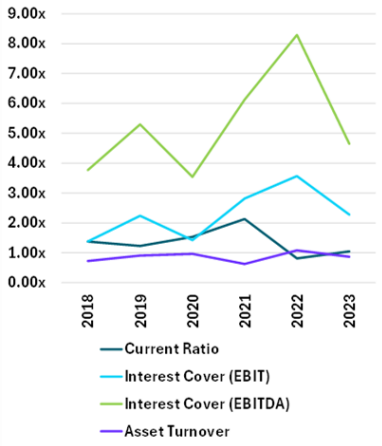
Source: *Author's Analysis; Appendix 11*

Figure 44 – Encavis Revenue and EBITDA Development (€mio)



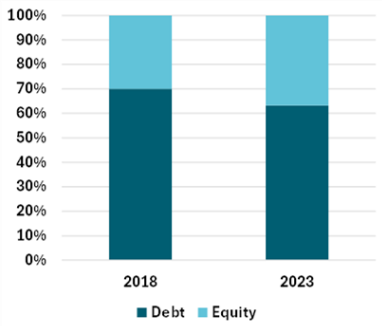
Source: *Encavis AG, 2024a*

Figure 45 – Financial Ratios



Source: *Encavis AG, 2024a; Appendix 14*

Figure 46 – Leverage



Source: *Encavis AG, 2024a*

to recover and reach €521.88 million by FY28E, supported by cost control and economies of scale (Appendix 13).

The Return on Capital Employed (ROCE) improved significantly, rising from 11.76% in FY18 to 17.67% in FY22 before settling at 16.07% in FY23. Projections indicate further improvements, with ROCE expected to reach 23.37% by FY28E, reflecting Encavis' efficient capital allocation and asset performance (Appendix 15).

Operational Excellence and Margin Stability | Encavis demonstrates sustained financial resilience, supported by steady improvements in liquidity and debt metrics. The current ratio is projected to increase from 1.05x in FY23 to 2.19x by FY28E, reflecting a strong balance between short-term assets and liabilities. The acid test ratio follows a similar trajectory, rising to 2.17x by FY28E, indicating robust short-term solvency even without reliance on inventory (Appendix 15).

While debt levels remain elevated, leverage is expected to decline as earnings improve. Net Debt/EBITDA is forecast to fall from 521.95% in FY23 to 356.60% in FY28E, driven by growing operating cash flows and disciplined capital management. Likewise, interest coverage measured by EBITDA/Interest Expense is set to rise from 4.65x to 5.70x over the same period, signaling stronger debt-servicing capacity (Figure 45; see Appendix 16 for the common-size balance sheet).

For a full overview of cash flow developments across operations, investments, and financing activities, refer to Appendix 17.

Capital Structure | Encavis' capital structure reflects its growth strategy, which relies on a mix of equity and debt financing. Total debt increased from €1.60 billion in FY18 to €2.09 billion in FY22 before stabilizing at €2.05 billion in FY23. It is forecast to remain broadly stable, reaching €2.04 billion by FY28E as the company continues to invest in new renewable energy projects(See Figure 46 and Appendix 18).

Despite high debt levels, Encavis' gearing ratio improved significantly, declining from 237.88% in FY19 to 172.32% in FY23. By FY28E, gearing is expected to reach 170.17%, highlighting the company's ability to gradually reduce reliance on leverage while growing its equity base.

The leverage ratio (debt as a percentage of total capital) has also declined from 70.40% in FY19 to 63.28% in FY23, with projections indicating further reductions to 62.97% by FY28E (See Figure 46 and Appendix 15).

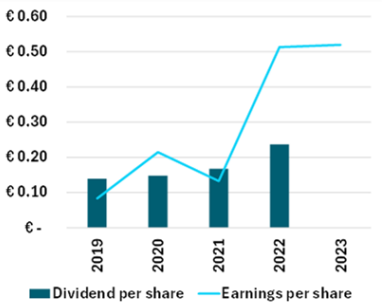
Shareholder Value | Encavis has consistently delivered value to shareholders, with earnings per share (EPS) growing from €0.08 in FY18 to €0.36 in FY23. Projections indicate EPS will rise to €0.71 by FY28E, reflecting improved profitability and operational efficiency. Encavis' dividend policy lacks transparency and shows significant variability, making it an unreliable benchmark for consistent shareholder returns (See Figure 47).

Encavis AG's financial performance reflects a well-executed growth strategy with strong profitability, stable liquidity, and a controlled capital structure. The company's consistent revenue growth, high EBITDA margins, and improving returns on capital highlight its operational strength. While debt levels remain elevated, Encavis' ability to service its obligations and reduce leverage positions it for sustainable long-term growth. Shareholders are set to benefit from rising earnings, robust dividend distributions, and improved valuation metrics over the forecast period.

8. Investment Risks

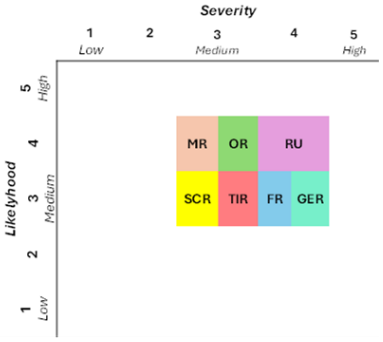
Regulatory and policy uncertainty (RU) | As a company deeply embedded in the European energy transition, its operations depend heavily on government incentives and subsidy frameworks. For instance, electricity price caps implemented in 2023 led to a revenue reduction of EUR 11.5 million, underscoring the potential impact of regulatory measures.

Figure 47 – Encavis´ EPS and DPS



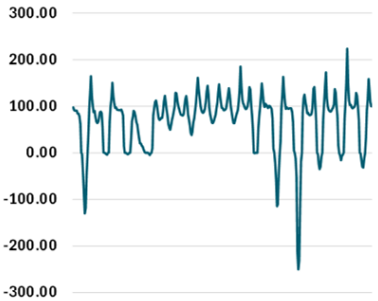
Source: *Encavis AG, 2024a*

Figure 48 – Risk Matrix



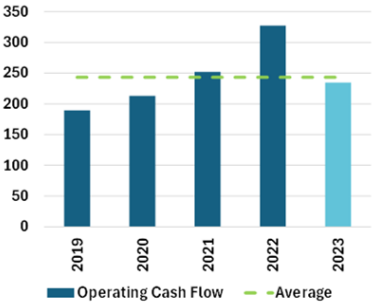
Source: *Author's Analysis*

Figure 49 – Wholesales Prices Germany (€/MWh) from 01/05/2025 – 14/05/2025



Source: *Bundesnetzagentur, 2025*

Figure 50 – Operating Cash Flow Decline 2023 (€mio)



Source: *Encavis AG, 2024a; Appendix 16*

Additionally, operating across diverse jurisdictions, including Germany, Italy, and Spain, exposes Encavis to varying policy frameworks. While the European Union's REPowerEU initiative provides tailwinds for renewables, sudden policy shifts or reductions in support mechanisms could impact profitability. To mitigate this, Encavis has focused on transitioning to private-sector contracts like PPAs, which offer greater independence from regulatory fluctuations (See Figure 48).

Market and price risks (MR) | Volatility of electricity prices (See Figure 49). The company experienced a drop in operating cash flow in 2023 due to a decline in electricity prices following the exceptionally high levels of 2022 (See Figure 50). Additionally, competition in the renewable energy sector is intensifying, with traditional oil and gas companies entering the space. Encavis has countered these risks by securing long-term PPAs, which lock in pricing and ensure more stable revenues (See Figure 48).

Operational risks (OR) | Company's reliance on weather conditions. Renewable energy production, especially from wind and solar parks, is inherently weather-dependent. For example, below-average wind conditions in 2023 led to underperformance in some projects. Furthermore, maintaining an extensive portfolio of 230 solar parks and 90 wind parks presents challenges, particularly with aging infrastructure and a shortage of skilled maintenance personnel. To address these issues, Encavis has invested in digitalization, predictive maintenance, and repowering older assets, which enhance operational resilience and efficiency (See Figure 48).

Financial Risk (FR) | high interest rates pose a challenge to project financing. While higher rates have increased borrowing costs, Encavis has strategically offset this through lower acquisition prices for new projects. In 2023, the company reported a decline in operating cash flow from EUR 327.2 million to EUR 234.9 million, reflecting pressure on liquidity. However, its decision to retain earnings (no dividend payout for 2023) and a strong equity ratio of 33.2% have ensured sufficient financial flexibility for future growth initiatives (See Figure 48 and Appendix 14).

Supply chain risks (SCR) | Procurement of specialized materials and components for renewable energy infrastructure. Disruptions or price volatility in the supply chain could delay project timelines and increase costs. To mitigate this, the company has established long-term supplier agreements and maintains strategic stock reserves to ensure continuity in its operations (See Figure 48).

Geopolitical and environmental risks (GER) | While Encavis' operations in Western Europe minimize direct exposure to global conflicts, indirect effects, such as increased energy price volatility from sanctions or supply chain constraints, remain potential challenges. Additionally, extreme weather events driven by climate change could damage infrastructure or disrupt production. To counter these risks, Encavis invests in climate-resilient infrastructure and diversifies its portfolio geographically. While emission reduction strategies contribute to long-term profitability, they can introduce short-term stock volatility due to market adjustments (Lewandowski, 2017). This dynamic is especially relevant for investors evaluating Encavis' long-term valuation stability under KKR ownership (See Figure 48).

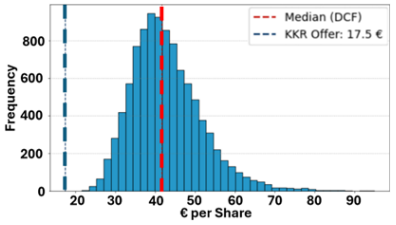
Technology and innovation risks (TIR) | must be carefully managed. The renewable energy sector is characterized by rapid technological advancements, and failure to adopt cutting-edge solutions could leave Encavis at a competitive disadvantage. Furthermore, as competition intensifies for emerging technologies, research and development costs may rise. Encavis has prioritized investments in scalable, cost-effective technologies and operational efficiencies, ensuring it remains at the forefront of industry innovation (See Figure 48).

Table 8 – Monte Carlo Simulation Inputs

Variable	Distribution Type	Parameter Range
Revenue Growth	Normal distribution	Mean: 7.6%, Std. Dev.: 2.0%
EBITDA Margin	Triangular distribution	Min: 64%, Mode: 68%, Max: 72%
WACC	Normal distribution	Mean: 5.2%, Std. Dev.: 0.5%
Terminal Growth	Uniform distribution	Fixed at 2.0%

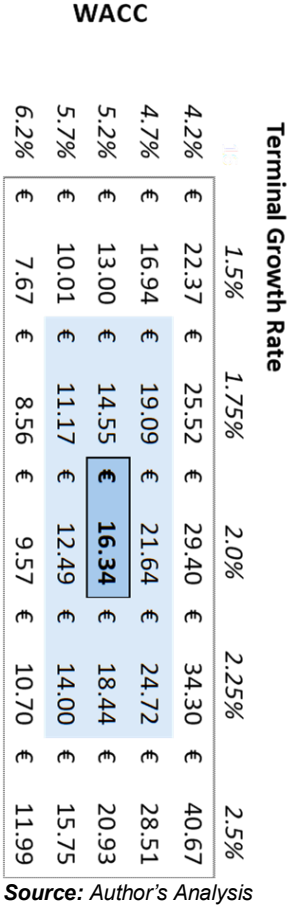
Source: *Author's Analysis*

Figure 51 – Monte Carlo Simulation



Source: *Author's Analysis (Python)*

Figure 52 – Sensitivity Analysis Equity Value per Share



Source: *Author's Analysis*

Monte Carlo Simulation | As part of the risk analysis, a Monte Carlo simulation was conducted to capture valuation uncertainty under variable operating and financial conditions. The model integrated key drivers such as revenue growth (mean 7.6%, σ = 2%), EBITDA margins (ranging from 64% to 72%), and WACC (mean 5.2%). Capital expenditures were assumed to grow annually from €203.65 million in FY24 to €274.44 million by FY29, in line with Encavis' forward-looking capex guidance (See Table 8). The simulation yielded a median intrinsic share price of €37.81 and a 90% confidence interval between €22.61 and €60.06 (See Figure 51). While this result implies significant upside relative to both the offer price (€17.50) and the base-case DCF valuation (€16.34), it should be interpreted with caution.

Several structural factors contribute to the high valuation range:

1. high operating leverage within Encavis' asset-heavy, long-duration renewables portfolio,
2. margin resilience due to largely fixed-cost structures, and
3. the compounding effect of stable cash flows in a low interest rate environment

However, the wide dispersion of outcomes highlights the model's sensitivity to assumptions such as margin stability and WACC. In practice, even moderate deviations in financing conditions or regulatory stability could materially reduce equity value. The optimistic median outcome likely reflects a best-case interaction of multiple favorable factors, many of which are not guaranteed under private ownership. As such, the Monte Carlo result should be seen as an upper-bound scenario rather than a realistic central estimate.

Senstivity Analysis | The sensitivity analysis illustrates how changes in the WACC and the Terminal Growth Rate (TGR) impact the equity value per share of Encavis AG (See Figure 52 and 53). The base case scenario, with a WACC of 5.2% and a terminal growth rate of 2.0%, yields an equity value per share of €16.34. This implies a 21.7% premium over the stock price of €13.43 at Takeover Announcement, suggesting the takeover offer reflects only a modest upside under central assumptions. The analysis shows that the valuation is highly sensitive to changes in both WACC and TGR: at a lower WACC of 4.2% and a TGR of 2.5%, the implied equity value rises to €40.67 (a 202.9% premium), while a more conservative scenario with a 6.2% WACC and 1.5% growth results in a value of just €7.67 (a 42.9% discount). This wide range underscores the importance of financing assumptions and long-term growth expectations when evaluating the fairness of the takeover bid.

Figure 53 – Sensitivity Analysis Premium (Discount) to Stock Price

WACC \ Terminal Growth Rate	1.5%	1.75%	2.0%	2.25%	2.5%
4.2%	66.6%	90.0%	118.9%	155.4%	202.9%
4.7%	26.2%	42.2%	61.1%	84.1%	112.3%
5.2%	(3.2%)	8.3%	**21.7%**	37.3%	55.9%
5.7%	(25.4%)	(16.8%)	(7.0%)	4.3%	17.3%
6.2%	(42.9%)	(36.2%)	(28.7%)	(20.3%)	(10.7%)

Source: *Author's Analysis*

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Appendices

Appendix 1: Porter's Five Forces

Competitive Rivalry in the Market: High (5)

Rivalry among existing companies is high and intense. High exit barriers due to CAPEX requirements and regulations, and high fixed costs mean that prices are determined by demand making it difficult to grow. Few competitors have a large market share and aggressive market strategy. Oil & gas companies shifting to renewable sources, expanding their portfolio, and investing in innovative technologies.

Threats of Substitutes: Moderate (3)

Renewable energy sources such as wind and solar are direct substitutes for fossil fuel energy production. Switching is driven by cost competitiveness, environmental concerns, and regulation. Energy storage solutions increase the viability of renewables as substitutes in addition to government support.

Bargaining Power of Suppliers: Moderate (3)

Suppliers of coal, oil and natural gas hold significant power, particularly in regions heavily dependent on imports. Geopolitical risks and supply chain disruptions can increase their power. In renewables, turbines and solar power manufacturers have more competition, decreasing supplier bargaining power.

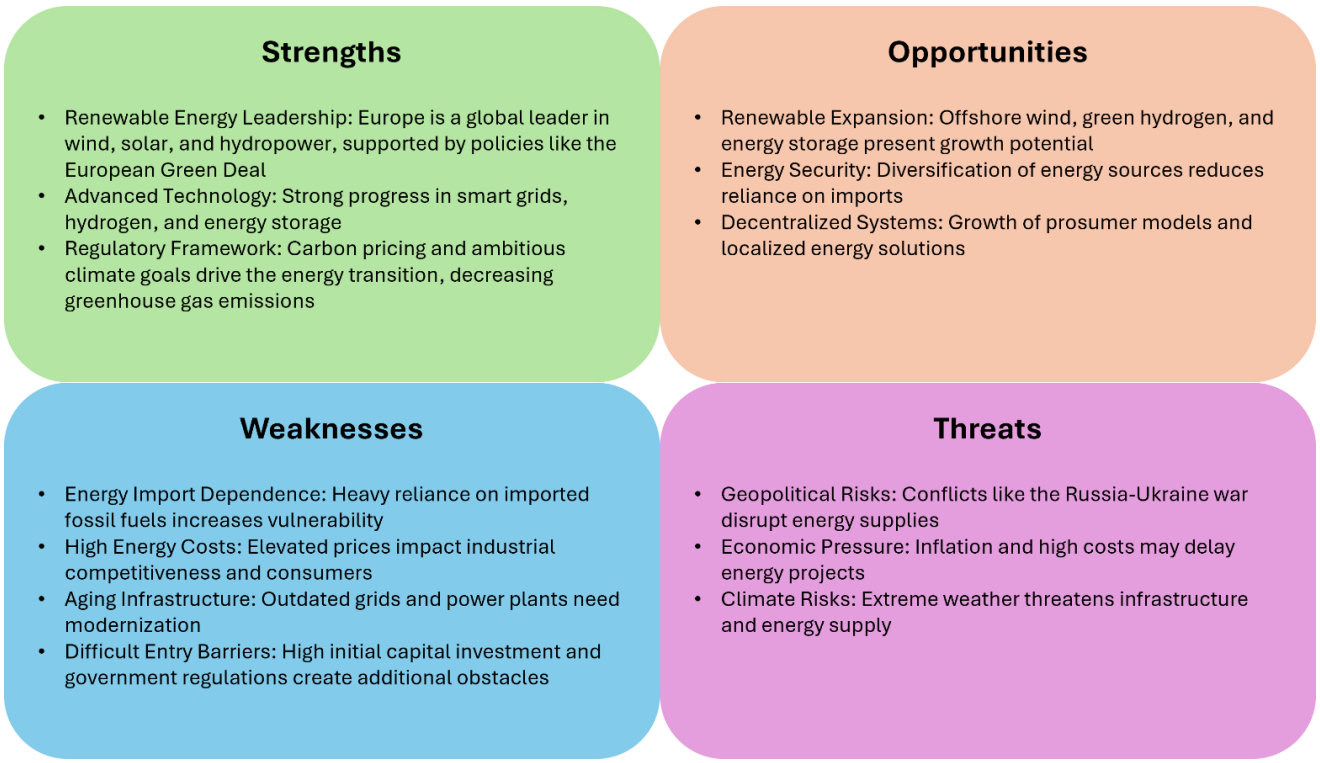
Bargaining Power of Buyers: Moderate to high (4)

Utilities and large industrial buyers wield significant power due to their ability to negotiate competitive pricing and long-term contracts. Retail consumers have less power due to the low quantity of power consumed. However, competition can drive the bargaining power of retail consumers up.

Threat of New Entrants: Low to moderate (2)

High capital requirements for infrastructure development and government regulations. However, newer technologies allow smaller companies to enter the market without large scale investment.

Appendix 2: SWOT Analysis



Source: *Author's Analysis*

Appendix 3: PESTEL Analysis

Political (P)	• Encavis' business model benefits significantly from EU and national renewable energy policies. Regulatory frameworks like the German EEG, the EU Green Deal, and REPowerEU provide a supportive environment for expansion. • However, political uncertainty remains regarding subsidy schemes, grid connection delays, and potential state interventions in electricity pricing (e.g., during the energy crisis). • New ESG and EU taxonomy regulations may increase compliance costs and reporting requirements.
Economic (E)	• Encavis operates on long-term Power Purchase Agreements (PPAs), which offer protection from electricity price volatility. • Rising interest rates increase the cost of capital – a critical factor in a capital-intensive industry like renewable energy. • Structural growth drivers include rising electricity demand from sectors such as e-mobility, heat pumps, and digital infrastructure.
Social (S)	• There is high public acceptance for renewables, especially solar power, which supports Encavis' growth potential. • ESG criteria are becoming increasingly important for institutional investors, giving Encavis a strong appeal as a sustainable asset. • However, a shortage of skilled technical labor may pose challenges for scaling operations.
Technological (T)	• Advances in storage technology (e.g., batteries, hydrogen) and smart grids open new efficiency gains and revenue streams. • Encavis invests in digital operations (e.g., via Encavis Technical Services) to optimize asset performance. • Compared to vertically integrated utilities with in-house R&D, Encavis may face disadvantages in innovation speed or scope.
Environmental (E)	• Encavis' core business – CO_2-free electricity – directly contributes to the energy transition and aligns with climate goals. • However, weather dependency (sunlight, wind variability) creates earnings volatility. • Environmental regulations and biodiversity concerns (e.g., protected species, land use constraints) can delay project approvals.
Legal (L)	• Encavis is directly affected by EU Taxonomy and SFDR regulations – impacting reporting standards and access to green capital. • The KKR takeover is subject to transparency obligations and merger control under EU and German law. • National legal frameworks (e.g., for grid connection, feed-in conditions, or land access) are complex and constantly evolving.

Source: *Author's Analysis*

Appendix 4: Discounted Cash Flow Model

Discounted Cash Flow Schedule: Perpetuity Method *(in € millions, except for share and share price)*

			Valuation	Discrete Forecast					Term
Terminal Growth Rate	2.0%	**Fiscal Year End**	23/12/31	24/12/31	25/12/31	26/12/31	27/12/31	28/12/31	29/12/31
WACC	5.2%	**Cash Flow Timing**	24/03/14	24/12/31	25/12/31	26/12/31	27/12/31	28/12/31	29/12/31
Unlevered Free Cash Flow			€ -	€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 158.26
UNADJUSTED CASH FLOW									
Discrete Forecast			€ -	€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 127.83	
Terminal Value			€ -	€ -	€ -	€ -	€ -	€ 5,008.15	
Total Cash Flow			€ -	€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 5,135.98	
ADJUSTED CASH FLOW									
Partial Period Adjustment			–	79.7%	100.0%	100.0%	100.0%	100.0%	
Discrete Forecast			€ -	€ 69.47	€ 93.09	€ 103.85	€ 111.66	€ 127.83	
Terminal Value			€ -	€ -	€ -	€ -	€ -	€ 5,008.15	
Total Cash Flow			€ -	€ 69.47	€ 93.09	€ 103.85	€ 111.66	€ 5,135.98	
DISCOUNTED CASH FLOW									
Years for Discounting			–	0.80	1.80	2.80	3.80	4.80	
Discrete Forecast			€ -	€ 66.74	€ 85.04	€ 90.22	€ 92.24	€ 100.42	
Terminal Value			€ -	€ -	€ -	€ -	€ -	€ 3,934.19	
Total Cash Flow			€ -	€ 66.74	€ 85.04	€ 90.22	€ 92.24	€ 4,034.61	

ENTERPRISE VALUE

Manual Method	€ 4,368.86
XNPV Function	€ 4,367.69

ENTERPRISE VALUE

PV of Discrete	*10%*	€ 434.66
PV of Terminal	*90%*	€ 3,934.19
Enterprise Value	*100%*	€ 4,368.86

EQUITY VALUE

Enterprise Value	€ 4,367.69
Less: Net Debt	€ -1,736.38
Equity Value	€ 2,631.31

EQUITY VALUE PER SHARE

Equity Value		€ 2,631.31
Shares Outstanding	*(FD 000)*	161,030
Equity Value	*(€/sh)*	16.34

Source: *Author's Analysis*

Discounted Cash Flow Schedule: Multiple Method *(in € millions, except for share and share price)*

			Valuation	Discrete Forecast					Term
Terminal Multiple	10.8x	**Fiscal Year End**	23/12/31	24/12/31	25/12/31	26/12/31	27/12/31	28/12/31	29/12/31
WACC	5.2%	**Cash Flow Timing**	24/03/14	24/12/31	25/12/31	26/12/31	27/12/31	28/12/31	29/12/31
Unlevered Free Cash Flow				€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 158.26
EBITDA									€ 521.88
UNADJUSTED CASH FLOW									
Discrete Forecast		**Terminal**	€ -	€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 158.26
Terminal Value		**Adjustment**	€ -	€ -	€ -	€ -	€ -	€ -	€ 5,615.40
Total Cash Flow		–	€ -	€ 87.14	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 5,773.66
ADJUSTED CASH FLOW									
Partial Period Adjustment			–	79.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Discrete Forecast			€ -	€ 69.47	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 158.26
Terminal Value			€ -	€ -	€ -	€ -	€ -	€ -	€ 5,615.40
Total Cash Flow			€ -	€ 69.47	€ 93.09	€ 103.85	€ 111.66	€ 127.83	€ 5,773.66
DISCOUNTED CASH FLOW									
Years for Discounting			–	0.80	1.80	2.80	3.80	4.80	5.80
Discrete Forecast			€ -	€ 66.74	€ 85.04	€ 90.22	€ 92.24	€ 100.42	€ 118.22
Terminal Value			€ -	€ -	€ -	€ -	€ -	€ -	€ 4,194.78
Total Cash Flow			€ -	€ 66.74	€ 85.04	€ 90.22	€ 92.24	€ 100.42	€ 4,313.00

ENTERPRISE VALUE	
Manual Method	€ 4,747.66
XNPV Function	€ 4,746.39

ENTERPRISE VALUE		
PV of Discrete	*12%*	€ 552.88
PV of Terminal	*88%*	€ 4,194.78
Enterprise Value	*100%*	€ 4,747.66

EQUITY VALUE	
Enterprise Value	€ 4,746.39
Less: Net Debt	€ -1,736.38
Equity Value	€ 3,010.01

EQUITY VALUE PER SHARE		
Equity Value		€ 3,010.01
Shares Outstanding	*(FD 000)*	161,030
Equity Value	*(€/sh)*	18.69

Source: *Author's Analysis*

Appendix 5: Forecasting Assumptions

The financial model is based on a set of assumptions that reflect historical company data, macroeconomic forecasts, and the analyst's judgment. Unless otherwise stated, all figures are in EUR and reflect nominal terms. The projection covers 2024–2028, with a Terminal Value from 2029 onwards. The model aims to provide a consistent, transparent, and conservative basis for the valuation of Encavis AG under a going concern assumption.

Inflation Rate	The inflation rate for the forecast period 2024 to 2026 is based on Bloomberg estimates. For the years 2027 to 2029, inflation is projected to converge toward the European Central Bank's target of 2%, applying a deviation corridor of ±0.5 percentage points to account for macroeconomic uncertainty. This results in a range of 1.5% to 2.5% for the terminal forecast period.

	Given Encavis' operational focus in Eurozone countries, a harmonized inflation assumption is deemed appropriate. Country-specific deviations were not modelled due to the consolidated nature of the projections and the limited availability of segmented cost data.
Revenue Assumptions 1. Electricity Distributed	The revenue forecast is driven by three key components: (1) electricity distributed, (2) pricing development, and (3) inflation. For the PV and Wind Parks segment, revenue is calculated as the product of electricity distributed (in MWh) and the average price per MWh. For PV Services and Asset Management, revenues are projected to grow in line with the assumed inflation rate. Electricity distributed is assumed to grow at a compound annual growth rate (CAGR) of 9.1% until 2030, based on OECD forecasts for renewable energy demand. The total volume of distributed energy (in MWh) is disaggregated by segment, with separate forecasts for PV Parks and Wind Parks. The segmental split is based on the current portfolio composition and reflects Encavis' expected expansion pipeline. Segment-specific growth rates are aligned proportionally with the overall CAGR, assuming a stable share of PV and wind within the total energy mix over time. This structure allows for more granular revenue modeling through segment-level volume and pricing forecasts.
2. Pricing development	Electricity prices are explicitly forecasted per MWh for both PV and wind energy segments. The model reflects a differentiated pricing trajectory, in which prices are expected to gradually normalize following the elevated levels of 2022–2023. The pricing assumptions follow a conservative outlook: • PV price per MWh is assumed to decrease by 2.0% annually in 2024 and 2025, then by 1.0% annually in 2026 and 2027, and remains constant from 2028 onward. • Wind price per MWh follows the same structure of decline, reflecting general market normalization but maintaining segment-specific differences. This pricing decline is embedded directly in the forecast and applied to the respective distributed electricity volumes (MWh) of each segment. The resulting revenues for PV Parks and Wind Parks are thus a direct function of forecasted volumes and forecasted average price per MWh. Prices are modelled in €/MWh with full decimal precision to ensure consistency with volume scaling. The pricing forecast is based on the analyst's assumptions, informed by historical market data, observed price volatility, and expectations of long-term price stabilization above pre-crisis levels. The model excludes ancillary or extraordinary income sources, assuming all revenue is derived from energy distribution and services only. This is detailed in the segment-level breakdown of revenues in Appendix 19.
Cost Assumptions	Operating cost projections are based on historical cost structures and expected developments in operating expenses. The model assumes that operating costs will grow in line with the projected inflation rate throughout the forecast period. This approach reflects a steady cost environment without extraordinary efficiency gains or losses.
Market Conditions	The model is based on the assumption of stable market conditions over the forecast period. This includes consistent customer demand, macroeconomic stability, and an unchanged regulatory framework across core markets. The projections do not incorporate potential disruptions such as adverse policy changes, economic shocks, or significant shifts in energy demand patterns. Any unexpected developments in these areas may materially impact the model's outcomes and valuation results.
Interest Rates and Financing	Interest rates and financing terms are assumed based on current market rates and historical trends. The interest rate on cash holdings is set at 3.5%, reflecting the EURIBOR 12-month rate as of 31 December 2023.

	The interest rate on long-term debt is based on the analyst's assumptions, guided by historical interest expense data disclosed in Encavis' financial statements and expectations of market normalization. After peaking at 5.2% in 2023 (2022: 4.0%; 2021: 3.7%), a gradual decline is forecasted to: • 4.9% in 2024, • 4.7% in 2025, • and stabilizing at 4.5% from 2026 onwards. This reflects a normalization trend that remains structurally above pre-tightening levels. The interest rate on short-term revolving credit lines is assumed at a constant 5.0%, based on prevailing short-term financing conditions. This assumption is also based on the analyst's judgment and benchmark data, and recent short-term financing conditions.
Tax Assumptions	Tax calculations are based on the prevailing corporate tax framework in Germany. The model applies a combined corporate tax rate of 30%, encompassing federal corporate tax, solidarity surcharge, and average trade tax. These assumptions are held constant throughout the forecast horizon.
Working Capital Schedule	The working capital forecast relies on normalized efficiency metrics derived from historical data: • Accounts Receivable Days are fixed at 79 days, based on the median between 2018 and 2023. • Inventory Levels are derived from a 5-year moving average, with Inventory Days calculated as: $(Inventory/Revenue) * 365$ • Accounts Payable is also based on a 5-year moving average, and Accounts Payable Days are calculated using: $(AccountsPayable/Revenue) * 365$ As a renewable energy operator, Encavis does not report traditional cost of goods sold (COGS). Consequently, working capital ratios are referenced to revenue rather than to cost-based measures, which aligns with the characteristics of its business model. The model assumes consistent working capital management and no structural changes throughout the forecast horizon. Working capital changes are included in the free cash flow calculation using the indirect method.
Depreciation Assumptions	All PP&E and CapEx are assumed fully depreciable (no land component), using straight-line depreciation.
CapEx Assumptions	CapEx are forecasted as a constant percentage of revenue, based on the historical average over the last five years (2018–2023). During this period, CapEx averaged 40.74% of revenue, reflecting Encavis' capital-intensive growth model and investment strategy in renewable energy infrastructure. This historical average is applied consistently across the forecast period from 2024 to 2029 to ensure continuity and comparability. No subsidies or tax credits were modeled as part of the capital investment assumptions.
Debt Schedule	The model applies a structured and rule-based approach to forecasting Encavis' financing activities, differentiating between long-term debt, short-term credit lines, and cash holdings:
1. Long-Term Debt Repayment	Calculated using the average residual maturity of Encavis' financial liabilities, reported at 13.4 years (Encavis, 2024a). Accordingly, the model assumes an annual repayment rate of 7.46% of the outstanding balance.
2. Long-Term Debt Issuance	Modeled to cover funding requirements not absorbed by retained earnings. Specifically, new debt issued each year is calculated as: $CAPEX(t) - Change\ in\ Retained\ Earnings(t-1)$ This ensures sufficient coverage of capital expenditures while preserving financial flexibility.
3. Revolving Credit Line Drawdown	Covers short-term liquidity needs arising from upcoming long-term debt repayments in t+1, ensuring that maturing debt is refinanced in a timely manner. Additional short-term refinancing is applied to maintain a minimum cash buffer.

4. Maintenance Cash Balance	Determined using the formula: $Max(-Cash\ from\ Working\ Capital\ Items, 0) + Long\ Term\ Debt\ Repayment\ at\ Maturity(t+1)$ This ensures that the company maintains adequate liquidity to meet short-term working capital volatility and near-term debt obligations.
5. Refinancing to maintain cash	Triggered if the actual available cash falls below the required maintenance level. The shortfall is financed through revolving credit facilities. All assumptions are based on the analyst's judgement, historic company disclosures, and market benchmarks.
Equity Schedule	The model assumes that no new equity issuance will take place over the forecast period. As a result, the number of shares outstanding remains constant at 161 million shares, in line with the FY2023 figure. This reflects the company's historical capital structure stability and the absence of dilutive financing plans.
Dividend Policy	Encavis does not publish a formal dividend policy. However, for modelling purposes, the forecast assumes a payout ratio of 50% of net income, starting from FY2024. This assumption strikes a balance between shareholder returns and reinvestment capacity to support ongoing growth and deleveraging. Dividends are calculated on an annual basis and deducted from retained earnings accordingly. The model does not assume any share buybacks or extraordinary equity-related actions.
Unlevered FCF Schedule	This schedule assumes no deferred taxes in the terminal year.
Terminal Growth rate	For the discounted cash flow (DCF) model, a terminal growth rate of 2.0% was applied, reflecting the long-term expected inflation-adjusted GDP growth in the Eurozone.
Income Tax Schedule	This schedule assumes losses do not carry back to previous periods to reduce taxable income. This schedule assumes that tax losses can be carried forward indefinitely into the future.
Taxes Assumptions	This schedule assumes losses do not carry back to previous periods to reduce taxable income. Tax Rate is a 5-Year Average.
Asset Schedule	Model assumes no dispositions that would impact the PP&E or the Tax Basis.
FX-Rate / Currency Assumption	All figures are reported in EUR, and no material foreign exchange exposure was modelled due to the geographic focus of operations.

Limitations

Data Limitations	The accuracy of the model relies on the quality and reliability of historical data and market information available. Any inaccuracies or incomplete data might affect the model's reliability.
External Factors	The model does not account for unexpected external events, such as natural disasters, geopolitical tensions, or global economic crises, which could significantly impact business operations and financial outcomes.
Forecasting Risks	Forecasting future financial performance inherently involves uncertainties. The model's accuracy is limited by the assumptions made and the unforeseen changes in market dynamics.
Sensitivity Analysis	While sensitivity analysis has been performed to assess the impact of changes in key variables, it may not cover all possible scenarios and combinations, and thus, some risks might not be fully captured.
Complex Interdependencies	The model simplifies complex business interactions and interdependencies. As a result, it might not fully reflect the complex relationships between different variables and their impact on financial outcomes.

Source: *Author's Analysis*

Appendix 6: WACC

Component	Weight	Cost (After-Tax)
Debt Capital	61.3%	3.6%
Equity Capital	38.7%	7.7%

$$WACC = \frac{E}{D+E} \times Cost\ of\ Equity + \frac{D}{D+E} \times Cost\ of\ Debt \times (1 - Tax\ Rate)$$

$$WACC = 0.387 * 0.077 + 0.613 * 0.0026 = 5.2\%$$

Source: *Author's Analysis*

Appendix 7: Cost of Equity – CAPM Assumptions

The cost of equity for Encavis AG was derived using the CAPM, which estimates the return required by equity investors based on systematic risk. The formula applied is:

$$Cost\ of\ Equity = Risk\ Free\ Rate + Levered\ Beta \times Market\ Risk\ Premium$$

Assumptions Used:

Risk-Free Rate	Set at 2.8%, corresponding to the yield on the 10-year German Bund as of March 31, 2024.
Market Risk Premium	Based on Damodaran's historical equity premium for Germany, a value of 5.1% was applied.
Unlevered Beta	0.46 (Appendix 8)
Target Capital Structure	$Target\ debt - to - equity\ ratio = 61.3\% / 38.7\% = 158.2\%$ (Appendix 6)
Corporate Tax Rate	German corporate tax rate of 30%

Releveraging Calculation:

The levered beta was calculated using the following formula:

$$Levered\ Beta = Unlevered\ Beta \times [1 + (1 - Tax\ Rate) \times (Debt/Equity)]$$

$$= 0.46 \times [1 + (1 - 0.30) \times 1.582] \approx 0.97$$

This levered beta reflects Encavis' exposure to financial leverage under the assumed capital structure.

Equity Risk Premium and Final Cost of Equity:

$$Equity\ Risk\ Premium = 0.97 \times 5.1\% = 4.9\%$$

$$Cost\ of\ Equity = 2.8\% + 4.9\% = 7.70\%$$

Thus, the cost of equity is estimated at 7.70%, which is used as an input in the WACC calculation to discount future free cash flows in the valuation model.

Source: *Author's Analysis*

Appendix 8: Beta

To estimate a representative beta for Encavis AG, it is relied on the peer group identified through the SARD approach.

For each peer, the levered beta (equity beta) is collected from Bloomberg and subsequently unlevered it using the standard Hamada formula:

$$\boldsymbol{Unlevered\ Beta = Levered\ Beta / [1 + (1 - Tax\ Rate) \times (Debt/Equity)]}$$

The relevant capital structure figures (debt, equity, tax rate) were sourced from the latest annual reports and cross-checked with market data.

The peer group exhibits an average unlevered beta of 0.46 and a median of 0.43, which is in line with the sector benchmark reported by Damodaran for Green & Renewable Energy (0.47).

Overview Table: Peer Beta Inputs and Capital Structure

	Region	Debt	Equity	Average Tax Rate	Debt/ Equity	Debt/ Capital	Levered Beta	Unlevered Beta
EDP SA	PO	€ 21,247,899,648.00	€ 16,554,394,624.00	20.1%	128.4%	56.2%	0.82	0.40
CEZ AS	CZ	€ 6,861,856,174.12	€ 9,473,115,788.94	26.2%	72.4%	42.0%	1.04	0.68
ERG SPA	IT	€ 2,677,225,984.00	€ 2,187,341,056.00	27.1%	251.9%	55.0%	0.56	0.20
SCATEC ASA	NO	€ 2,307,048,890.43	€ 1,045,714,485.33	27.8%	154.3%	68.8%	0.96	0.45
VOLTALIA SA- REGR	FR	€ 2,181,490,944.00	€ 1,290,731,008.00	96.3%	169.0%	62.8%	0.80	0.75
ENERGIEKONTOR AG	GE	€ 429,316,992.00	€ 180,775,008.00	29.2%	219.1%	70.4%	0.70	0.27
Average				37.8%	165.8%	59.2%	0.81	0.46
Median				27.5%	161.6%	59.5%	0.81	0.43

Source: *Author's Analysis*

Appendix 9: Cost of Debt

Pre-Tax Cost of Debt

The pre-tax cost of debt is based on the company's most recent interest expense in 2023 relative to its total debt reported for 2022. This ratio captures the blended interest rate across all existing borrowings, including bonds, loans, and other financial instruments:

$$Pre\ Tax\ Cost\ of\ Debt\ =\ Interest\ Expense\ (2023)\ /\ Total\ Debt\ (2022)$$

$$5.1\% = €\ 106.17m / €\ 2{,}089.91m$$

(based on total financial result)

Tax Shield Adjustment

To reflect the tax deductibility of interest expenses, the pre-tax rate was adjusted using the German corporate tax rate of 30.0%.

$$After\ Tax\ Cost\ of\ Debt\ =\ Pre\ Tax\ Cost\ of\ Debt\ \times\ (1\ -\ Tax\ Rate)$$

$$=\ 5.1\%\ \times\ (1\ -\ 0.30)\ =\ 3.6\%$$

This results in an after-tax cost of debt of 3.6%, which was used in the WACC calculation to determine the company's weighted average cost of capital.

Source: *Author's Analysis*

Appendix 10: SARD Approach

This analysis employs the SARD Approach, as proposed by Knudsen et al. (2017).

Peer Screening Summary Table

Name	Country	Mkt Cap (EUR)	Size Rank	ROE	Profitability Rank	Net Debt to EBITDA	Risk Ranking	Revenue Growth	Growth Ranking	EBIT/Net Sales	Multiple Ranking	SARD	SARD Ranking	Peers?	Decision
ENCAVIS AG	*GE*	*2510460818*	*14*	*4.95*	*17*	*5.22*	*6*	*0.091*	*9*	*34.72*	*6*	*0*			
EDP SA	*PO*	*18955964416*	*9*	*9.32*	*12*	*3.77*	*8*	*0.071*	*10*	*16.79*	*13*	*0*	*1*	YES	YES
ENEL SPA	*IT*	*68359421952*	*1*	*11.38*	*8*	*3.51*	*9*	*0.025*	*12*	*11.66*	*17*	*5*	*6*	YES	NO
RWE AG	GE	30631372800	*3*	4.9	*18*	1.55	*16*	-0.097	*19*	-1.25	*22*	26	19	NO	NO
E.ON SE	GE	31731650560	*2*	3.44	*20*	6.26	*3*	-0.055	*15*	0.91	*21*	9	11	NO	NO
PUBLIC POWER CORP	GR	4065553920	*13*	9.94	*10*	1.96	*15*	0.127	*7*	14.15	*16*	9	11	NO	NO
NATURGY ENERGY GROUP SA	*SP*	*26179571712*	*5*	*23.33*	*5*	*2.27*	*14*	*-0.034*	*13*	*15.34*	*15*	*0*	*1*	YES	NO
CEZ AS	*CZ*	*20838426414*	*7*	*11.74*	*7*	*1.22*	*17*	*-0.035*	*14*	*25.12*	*8*	*1*	*3*	YES	Yes
VERBUND AG	AS	29200287744	*4*	26.28	*4*	0.4	*21*	-0.356	*22*	33.51	*7*	6	7	NO	NO
SSE PLC	GB	21156892603	*6*	19.3	*6*	2.42	*12*	0.118	*8*	23.85	*10*	10	13	NO	NO
EDP RENOVAVEIS SA	SP	18969194496	*8*	3.08	*21*	4.28	*7*	0.226	*4*	39.06	*5*	7	9	NO	No
TAURON POLSKA ENERGIA SA	PD	1506123048	*18*	9.7	*11*	2.38	*13*	-0.337	*21*	7.65	*19*	30	21	NO	NO
CORP ACCIONA ENERGIAS RENOVA	*SP*	*9245356032*	*10*	*8.94*	*13*	*2.66*	*11*	*-0.087*	*17*	*23.54*	*11*	*10*	*13*	NO	NO
DRAX GROUP PLC	GB	2172731038	*16*	34.26	*3*	1.04	*18*	-0.096	*18*	11.18	*18*	21	18	NO	NO
MVV ENERGIE AG	*GE*	*2029935616*	*17*	*53.97*	*1*	*0.65*	*20*	*-0.308*	*20*	*15.71*	*14*	*20*	*17*	NO	NO
NEOEN SA	*FR*	*4596281856*	*11*	*6.61*	*16*	*5.58*	*5*	*0.573*	*1*	*69.47*	*1*	*18*	*16*	NO	NO
ERG SPA	*IT*	*4246276864*	*12*	*8.55*	*14*	*3.17*	*10*	*0.147*	*6*	*41.05*	*4*	*6*	*7*	NO	YES
BORALEX INC -A	CA	2368675916	*15*	4.71	*19*	6.05	*4*	-0.082	*16*	22.11	*12*	14	15	NO	NO
SCATEC ASA	*NO*	*1166496496*	*21*	*7.41*	*15*	*6.59*	*2*	*0.193*	*5*	*55.60*	*2*	*7*	*9*	NO	YES
VOLTALIA SA- REGR	*FR*	*1368340992*	*20*	*2.37*	*22*	*6.79*	*1*	*0.268*	*3*	*24.09*	*9*	*3*	*4*	YES	Yes
NATURENERGIE HOLDING AG	SZ	1383456256	*19*	10.83	*9*	-0.05	*22*	0.058	*11*	5.46	*20*	29	20	NO	NO
ENERGIEKONTOR AG	*GE*	*1143447296*	*22*	*53.94*	*2*	*0.67*	*19*	*0.533*	*2*	*47.33*	*3*	*4*	*5*	YES	YES

Source: *Author's Analysis*

Appendix 11: Relative Valuation

Peer Companies	Enterprise Value[1]	Market Cap	EBITDA	Net Income	EV / EBITDA	P / E[2]
ENCAVIS AG	*€ 4,246,839,818.00*	*€ 2,510,460,818.00*	*€ 332,670,000.00*	*€ 58,726,000.00*	*12.77x*	*42.75x*
EDP SA	€ 42,587,279,360.00	€ 18,955,964,416.00	€ 4,911,042,048.00	€ 952,348,032.00	8.7x	19.9x
CEZ AS	€ 27,022,572,824.09	€ 20,838,426,414.16	€ 5,147,584,218.56	€ 1,230,555,358.60	5.2x	16.9x
ERG SPA	€ 5,928,844,800.00	€ 4,246,276,864.00	€ 529,040,992.00	€ 178,668,000.00	11.2x	23.8x
SCATEC ASA	€ 3,436,576,092.66	€ 1,166,496,495.95	€ 312,503,677.29	€ 55,018,869.03	11.0x	21.2x
VOLTALIA SA- REGR	€ 3,001,260,032.00	€ 1,368,340,992.00	€ 222,940,000.00	€ 29,632,000.00	13.5x	46.2x
ENERGIEKONTOR AG	€ 1,234,511,232.00	€ 1,143,447,296.00	€ 135,552,992.00	€ 83,321,000.00	9.1x	13.7x
Target Company Valuation						
Damodaran					*10.8x*	*19.0x*
Average					**9.8x**	**23.6x**
Median					10.1x	20.6x
Maximum					13.5x	46.2x
Minimum					5.2x	13.7x

Source: *Author's Analysis*

	EV / EBITDA	P / E
MULTIPLE	9.8x	23.6x
ENTERPRISE VALUE (€mio)	€ 3,254.31	€ 2,995.90
NET DEBT (€mio)	€ 1,736.00	€ 1,736.00
EQUITY VALUE (€mio) (as of 31/12/2023)	€ 1,517.93	€ 1,259.52
NUMBER SHARES (mio)	161	161
EQUITY VALUE PER SHARE	€ 9.43	€ 7.82

Source: *Author's Analysis*

Appendix 12: Discounted Dividend Model *(in € millions, except for share and share price)*

Dividend growth rate	0%
Cost of Equity	7.7%
Net Debt	€ 1,736.38
Shares Outstanding	161,030,200

Discount Years	1	2	3	4	5	6
Discounting Factor	92.85%	86.22%	80.05%	74.33%	69.02%	69.02%
Dividends	€ 19.53	€ 26.74	€ 35.94	€ 45.13	€ 57.14	€ 742.36
DPS	€ 0.12	€ 0.17	€ 0.22	€ 0.28	€ 0.35	€ 4.61
PV of DPS	€ 0.11	€ 0.14	€ 0.18	€ 0.21	€ 0.24	€ 3.18

Implied Share Price	€ 4.07
Equity Value	€ 655,311
Enterprise Value	€ 2,391,690

Main Outputs

	Enterprise Value	Equity Value	Equity Per Share
Best Case	2,606,496	870,117	5.40
Base Case	2,391,690	655,311	4.07
Bust Case	2,199,454	463,075	2.88

Source: *Author's Analysis*

Appendix 13: Income Statement *(in € millions)*

Income Statement	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
Inflation							2.4%	2.1%	2.0%	2.0%	2.0%	2.0%
Revenue	€ 248.79	€ 273.82	€ 292.30	€ 332.70	€ 487.34	€ 469.64	€ 512.60	€ 543.90	€ 582.17	€ 623.39	€ 673.61	€ 728.27
Other Income	€ 17.46	€ 14.84	€ 17.31	€ 38.04	€ 43.28	€ 45.41						
Other Operating Income	€ 17.46	€ 14.84	€ 17.31	€ 38.04	€ 43.28	€ 42.89						
Capitalized Production	€ -	€ -	€ -	€ -	€ -	€ 2.52						
Operating Costs	€ -70.92	€ -72.56	€ -81.21	€ -90.45	€ -154.11	€ -182.38	€ -186.76	€ -190.68	€ -194.49	€ -198.38	€ -202.35	€ -206.39
Raw Materials And Consumables Used	€ -1.76	€ -2.14	€ -3.01	€ -4.31	€ -9.95	€ -30.60	€ -31.33	€ -31.99	€ -32.63	€ -33.28	€ -33.95	€ -34.63
Salaries Wages and Employee Benefits	€ -13.31	€ -17.00	€ -20.66	€ -19.22	€ -27.03	€ -35.29	€ -36.14	€ -36.90	€ -37.64	€ -38.39	€ -39.16	€ -39.94
Other Operating Expenses	€ -55.86	€ -53.43	€ -57.54	€ -66.92	€ -117.14	€ -116.49	€ -119.28	€ -121.79	€ -124.22	€ -126.71	€ -129.24	€ -131.83
EBITDA	**€ 195.33**	**€ 216.10**	**€ 228.41**	**€ 280.29**	**€ 376.50**	**€ 332.67**	**€ 325.85**	**€ 353.23**	**€ 387.68**	**€ 425.01**	**€ 471.27**	**€ 521.88**
Depreciation & Amortization	€ -123.77	€ -124.68	€ -136.58	€ -151.45	€ -152.62	€ -164.11	€ -179.17	€ -189.61	€ -200.69	€ -212.55	€ -225.25	€ -238.97
Impairment losses	€ -	€ -	€ -	€ -	€ -62.02	€ -5.49						
EBIT	**€ 71.56**	**€ 91.43**	**€ 91.83**	**€ 128.85**	**€ 161.87**	**€ 163.07**	**€ 146.68**	**€ 163.61**	**€ 186.99**	**€ 212.46**	**€ 246.02**	**€ 282.91**
Interest	€ -51.78	€ -40.77	€ -64.49	€ -45.73	€ -45.40	€ -71.49	€ -90.86	€ -87.23	€ -84.30	€ -83.53	€ -82.75	€ -81.58
EBT	**€ 19.78**	**€ 50.65**	**€ 27.34**	**€ 83.12**	**€ 116.47**	**€ 91.58**	**€ 55.81**	**€ 76.39**	**€ 102.68**	**€ 128.93**	**€ 163.27**	**€ 201.33**
Tax Expense	€ -8.98	€ -21.26	€ -8.97	€ -0.85	€ -32.88	€ -32.85	€ -16.74	€ -22.92	€ -30.80	€ -38.68	€ -48.98	€ -60.40
Net Income	**€ 10.80**	**€ 29.39**	**€ 18.37**	**€ 82.27**	**€ 83.59**	**€ 58.73**	**€ 39.07**	**€ 53.47**	**€ 71.88**	**€ 90.25**	**€ 114.29**	**€ 140.93**

Source: *Author's Analysis*

Appendix 14: Common-Size Income Statement

Income Statement	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
Inflation							2.4%	2.1%	2.0%	2.0%	2.0%	2.0%
Revenue	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other Income	7%	5%	6%	11%	9%	10%						
Other Operating Income	7%	5%	6%	11%	9%	9%						
Capitalized Production	0%	0%	0%	0%	0%	1%						
Operating Costs	-29%	-26%	-28%	-27%	-32%	-39%	-36%	-35%	-33%	-32%	-30%	-28%
Raw Materials And Consumables Used	-1%	-1%	-1%	-1%	-2%	-7%	-6%	-6%	-6%	-5%	-5%	-5%
Salaries Wages and Employee Benefits	-5%	-6%	-7%	-6%	-6%	-8%	-7%	-7%	-6%	-6%	-6%	-5%
Other Operating Expenses	-22%	-20%	-20%	-20%	-24%	-25%	-23%	-22%	-21%	-20%	-19%	-18%
EBITDA	**79%**	**79%**	**78%**	**84%**	**77%**	**71%**	**64%**	**65%**	**67%**	**68%**	**70%**	**72%**
Depreciation & Amortization	-50%	-46%	-47%	-46%	-31%	-35%	-35%	-35%	-34%	-34%	-33%	-33%
Impairment losses	0%	0%	0%	0%	-13%	-1%						
EBIT	**29%**	**33%**	**31%**	**39%**	**33%**	**35%**	**29%**	**30%**	**32%**	**34%**	**37%**	**39%**
Interest	-21%	-15%	-22%	-14%	-9%	-15%	-18%	-16%	-14%	-13%	-12%	-11%
EBT	**8%**	**18%**	**9%**	**25%**	**24%**	**19%**	**11%**	**14%**	**18%**	**21%**	**24%**	**28%**
Tax Expense	-4%	-8%	-3%	0%	-7%	-7%	-3%	-4%	-5%	-6%	-7%	-8%
Net Income	**4%**	**11%**	**6%**	**25%**	**17%**	**13%**	**8%**	**10%**	**12%**	**14%**	**17%**	**19%**

Source: *Author's Analysis*

Appendix 15: Key Financial Ratios

SUMMARY OF FINANCIAL RATIOS											
Performance ratios	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Return on Capital Employed (ROCE)	11.76%	12.02%	12.68%	13.66%	17.67%	16.07%	18.71%	19.62%	20.78%	21.96%	23.37%
Gross Profit Margin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Asset Turnover	0.73x	0.91x	0.96x	0.62x	1.08x	0.87x	1.29x	1.17x	1.20x	1.22x	1.26x
Return on Equity	1.57%	4.07%	2.44%	7.71%	8.74%	4.95%	3.89%	5.13%	6.63%	7.94%	9.51%
Liquidity and solvency											
Debt/EBITDA	731.68%	719.41%	680.31%	488.80%	478.20%	521.95%	532.93%	489.71%	442.86%	400.53%	356.60%
Current ratio	1.38x	1.23x	1.53x	2.13x	0.81x	1.05x	0.89x	1.05x	1.27x	1.60x	2.19x
Acid test ("Quick ratio")	1.38x	1.23x	1.53x	2.13x	0.80x	1.04x	0.88x	1.04x	1.26x	1.59x	2.17x
Working Capital Investment % sales	37.64%	20.52%	36.08%	85.09%	(21.56%)	5.14%	(9.78%)	4.28%	17.92%	30.81%	43.04%
Trade receivables days	84 days	213 days	166 days	74 days	60 days	74 days	79 days	79 days	79 days	79 days	79 days
Trade payables days	53 days	-3549 days	-3460 days	-4178 days	-2631 days	-629 days					
Inventory days	1 days	-70 days	-41 days	-64 days	-206 days	-63 days					
Interest Cover (EBIT)	1.38x	2.24x	1.42x	2.82x	3.57x	2.28x	1.61x	1.88x	2.22x	2.54x	2.97x
Interest Cover (EBITDA)	3.77x	5.30x	3.54x	6.13x	8.29x	4.65x	3.59x	4.05x	4.60x	5.09x	5.70x
Capital Structure											
Gearing	233.56%	237.88%	229.04%	165.45%	218.42%	172.32%	198.94%	196.78%	189.12%	180.53%	170.17%
Leverage	70.00%	70.38%	69.59%	62.31%	68.58%	63.27%	66.53%	66.29%	65.40%	64.34%	62.97%
Shareholder and market measures											
Earnings per share (EPS)	€ 0.08	€ 0.21	€ 0.13	€ 0.51	€ 0.52	€ 0.36	€ 0.24	€ 0.33	€ 0.45	€ 0.56	€ 0.71
Dividend Cover	1.93x	0.65x	1.11x	0.33x	0.46x	0.00x	0.50x	0.50x	0.50x	0.50x	0.50x
Dividend Yield	2.93%	1.49%	0.69%	1.08%	1.28%	0.00%	0.78%	1.06%	1.43%	1.80%	2.28%
Price to earnings ratio	65.94x	43.78x	160.86x	30.35x	35.61x	42.75x	64.26x	46.95x	34.93x	27.82x	21.97x
Market/book ratio	1.04x	1.78x	3.93x	2.34x	3.11x	2.12x	2.50x	2.41x	2.31x	2.21x	2.09x

Source: *Author's Analysis*

Appendix 16: Common-Size Statement of Financial Position

Balance Sheet	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
ASSETS						**Other Assets Growth Rate**		3.2%	1.4%	1.7%	1.8%	2.0%
Cash	7%	6%	6%	12%	9%	9%	8%	9%	9%	10%	10%	10%
ST investment	*3%*	*2%*	*2%*	*2%*	*2%*	*2%*	2%	2%	2%	2%	2%	2%
Accounts Receivable	1%	2%	2%	1%	2%	2%	3%	3%	3%	3%	3%	3%
Inventories	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Current Assets	2%	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%
Total Current Assets	**13%**	**11%**	**11%**	**17%**	**13%**	**15%**	**12%**	**13%**	**14%**	**14%**	**14%**	**15%**
LT Investments & Receivables	1%	4%	3%	1%	0%	1%	1%	1%	1%	1%	1%	1%
Property Plant & Equipment	58%	61%	67%	68%	68%	68%	72%	70%	70%	69%	69%	68%
Other non-current Assets	28%	24%	19%	15%	19%	16%	16%	16%	16%	16%	16%	16%
Total Non-Current Assets	**87%**	**89%**	**89%**	**83%**	**87%**	**85%**	**88%**	**87%**	**86%**	**86%**	**86%**	**85%**
Total Assets	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
LIABILITIES												
Accounts Payable	1%	1%	1%	2%	2%	1%	2%	2%	2%	2%	2%	2%
Short-Term Debt	7%	7%	5%	6%	13%	12%	11%	10%	8%	6%	4%	1%
Other Current Liabilities	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Total Current Liabilities	**9%**	**9%**	**7%**	**8%**	**16%**	**14%**	**13%**	**13%**	**11%**	**9%**	**7%**	**4%**
Long-Term Debt	54%	53%	56%	49%	48%	46%	48%	49%	50%	51%	52%	53%
Other non-current liabilities	11%	13%	11%	10%	7%	7%	9%	9%	9%	9%	9%	9%
Total Non-Current Liabilities	**65%**	**66%**	**66%**	**59%**	**56%**	**52%**	**57%**	**58%**	**59%**	**60%**	**61%**	**62%**
EQUITY												
Common Equity	5%	5%	5%	5%	5%	5%	5%	5%	5%	4%	4%	4%
Retained Earnings	2%	1%	0%	1%	2%	4%	4%	5%	6%	7%	9%	10%
Other Reserves	16%	14%	16%	19%	14%	18%	15%	14%	14%	14%	14%	14%
Equity Attributable to non Controlling	4%	6%	6%	8%	7%	7%	6%	6%	6%	6%	6%	6%
Total Shareholders' Equity	**26%**	**25%**	**27%**	**33%**	**28%**	**33%**	**30%**	**30%**	**31%**	**31%**	**33%**	**34%**
Total Liabilities & Equity	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: *Author's Analysis*

Appendix 17: Cash Flow Statement *(in € millions)*

Cash Flow Statement	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
CASH FROM OPERATING												
Net Income	€ 10.80	€ 29.39	€ 18.37	€ 82.27	€ 83.59	€ 58.73	€ 39.07	€ 53.47	€ 71.88	€ 90.25	€ 114.29	€ 140.93
Depreciation	€ 123.77	€ 124.68	€ 136.58	€ 151.45	€ 152.62	€ 164.11	€ 179.17	€ 189.61	€ 200.69	€ 212.55	€ 225.25	€ 238.97
Change in Net Working Capital	€ -	€ -117.85	€ 35.08	€ 85.03	€ 5.11	€ -34.04	€ -4.51	€ -0.76	€ -2.13	€ -5.91	€ -6.64	€ -4.32
Other	€ 39.71	€ 153.09	€ 22.91	€ -66.80	€ 85.92	€ 46.08						
Subtotal	**€ 174.28**	**€ 189.32**	**€ 212.95**	**€ 251.94**	**€ 327.24**	**€ 234.88**	**€ 213.73**	**€ 242.33**	**€ 270.44**	**€ 296.89**	**€ 332.90**	**€ 375.59**
CASH FROM INVESTING												
Capital Expenditure	€ -112.55	€ -68.47	€ -38.83	€ -99.79	€ -286.37	€ -203.65	€ -191.33	€ -208.84	€ -221.59	€ -237.18	€ -253.97	€ -274.44
Other	€ -5.87	€ -164.23	€ -55.31	€ 10.33	€ -11.24	€ -1.74						
Subtotal	**€ -118.42**	**€ -232.70**	**€ -94.14**	**€ -89.46**	**€ -297.61**	**€ -205.38**	**€ -191.33**	**€ -208.84**	**€ -221.59**	**€ -237.18**	**€ -253.97**	**€ -274.44**
CASH FROM FINANCING												
Change in Long-Term Debt		€ 89.82	€ 54.31	€ 16.47	€ 63.89	€ -18.03	€ 10.96	€ 66.84	€ 67.41	€ 68.76	€ 71.24	€ 74.36
Change in Revolving Credit Line		€ 24.61	€ -52.12	€ 26.49	€ 261.71	€ -26.51	€ -59.40	€ -11.49	€ -68.32	€ -67.95	€ -79.17	€ -93.15
Change in Common Equity		€ 7.55	€ 1.40	€ 22.03	€ 0.56	€ -	€ -	€ -	€ -	€ -	€ -	€ -
Dividends	€ -20.84	€ -19.11	€ -20.47	€ -26.88	€ -38.13	€ -	€ -19.53	€ -26.74	€ -35.94	€ -45.13	€ -57.14	€ -70.46
Other	€ 16.58	€ -70.20	€ -95.83	€ 24.45	€ -423.00	€ 34.57						
Subtotal	**€ -4.26**	**€ 32.68**	**€ -112.71**	**€ 62.56**	**€ -134.96**	**€ -9.96**	**€ -67.97**	**€ 28.62**	**€ -36.85**	**€ -44.32**	**€ -65.08**	**€ -89.26**
CASH BALANCE												
Beginning of the Year		€ 171.53	€ 161.20	€ 166.87	€ 392.43	€ 286.28	€ 305.96	€ 260.39	€ 322.50	€ 334.49	€ 349.89	€ 363.74
Increase / (Decrease)	€ 51.61	€ -10.71	€ 6.09	€ 225.05	€ -105.33	€ 19.53	€ -45.57	€ 62.11	€ 12.00	€ 15.40	€ 13.85	€ 11.90
Effect of exchange rate fluctuations on c	€ -	€ -	€ -	€ -	€ -	€ -						
End of the Year	**€ 171.53**	**€ 161.20**	**€ 166.87**	**€ 392.43**	**€ 286.28**	**€ 305.96**	**€ 260.39**	**€ 322.50**	**€ 334.49**	**€ 349.89**	**€ 363.74**	**€ 375.63**

Source: *Author's Analysis*

Appendix 18: Statement of Financial Position *(in € millions)*

Balance Sheet	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
							Other Assets Growth Rate	3.2%	1.4%	1.7%	1.8%	2.0%
ASSETS												
Cash	€ 175.56	€ 164.50	€ 167.49	€ 394.23	€ 289.48	€ 309.00	€ 260.39	€ 322.50	€ 334.49	€ 349.89	€ 363.74	€ 375.63
ST investment	*€ 76.93*	*€ 57.98*	*€ 63.51*	*€ 50.41*	*€ 54.92*	*€ 66.64*	€ 61.73	€ 63.68	€ 64.60	€ 65.69	€ 66.85	€ 68.16
Accounts Receivable	€ 36.18	€ 45.28	€ 46.73	€ 47.73	€ 69.82	€ 76.61	€ 88.82	€ 94.50	€ 101.15	€ 108.31	€ 116.72	€ 126.54
Inventories	€ 0.42	€ 0.41	€ 0.33	€ 0.75	€ 5.61	€ 5.31	€ 3.43	€ 4.01	€ 4.74	€ 5.55	€ 5.68	€ 5.81
Other Current Assets	€ 52.72	€ 33.41	€ 25.18	€ 39.74	€ 30.17	€ 81.64	€ 43.81	€ 45.19	€ 45.84	€ 46.62	€ 47.44	€ 48.37
Total Current Assets	**€ 341.81**	**€ 301.58**	**€ 303.24**	**€ 532.86**	**€ 450.00**	**€ 539.20**	**€ 396.45**	**€ 466.20**	**€ 486.23**	**€ 510.37**	**€ 533.58**	**€ 556.35**
LT Investments & Receivable	€ 20.99	€ 114.42	€ 85.63	€ 20.11	€ 10.41	€ 19.00	€ 22.03	€ 23.44	€ 25.09	€ 26.86	€ 28.95	€ 31.38
Property Plant & Equipment	€ 1,548.64	€ 1,749.66	€ 1,901.99	€ 2,174.95	€ 2,304.99	€ 2,431.21	€ 2,443.38	€ 2,462.60	€ 2,483.50	€ 2,508.13	€ 2,536.85	€ 2,572.32
Other non-current Assets	€ 737.63	€ 694.28	€ 532.99	€ 487.97	€ 640.14	€ 584.14	€ 525.86	€ 547.17	€ 557.20	€ 569.12	€ 581.85	€ 596.15
Total Non-Current Assets	**€ 2,307.25**	**€ 2,558.36**	**€ 2,520.61**	**€ 2,683.03**	**€ 2,955.54**	**€ 3,034.35**	**€ 2,991.27**	**€ 3,033.21**	**€ 3,065.79**	**€ 3,104.11**	**€ 3,147.65**	**€ 3,199.85**
Total Assets	**€ 2,649.07**	**€ 2,859.94**	**€ 2,823.84**	**€ 3,215.89**	**€ 3,405.54**	**€ 3,573.56**	**€ 3,387.72**	**€ 3,499.41**	**€ 3,552.02**	**€ 3,614.48**	**€ 3,681.24**	**€ 3,756.20**
LIABILITIES												
Accounts Payable	€ 36.09	€ 20.77	€ 28.43	€ 49.35	€ 71.71	€ 52.75	€ 61.60	€ 68.51	€ 75.41	€ 79.25	€ 83.23	€ 91.30
Short-Term Debt	€ 181.18	€ 205.80	€ 153.68	€ 180.16	€ 441.87	€ 415.36	€ 355.96	€ 344.47	€ 276.15	€ 208.20	€ 129.03	€ 35.87
Other Current Liabilities	€ 30.91	€ 18.82	€ 15.66	€ 20.26	€ 41.51	€ 46.94	€ 29.02	€ 29.93	€ 30.36	€ 30.88	€ 31.42	€ 32.04
Total Current Liabilities	**€ 248.18**	**€ 245.39**	**€ 197.77**	**€ 249.77**	**€ 555.08**	**€ 515.06**	**€ 446.57**	**€ 442.91**	**€ 381.93**	**€ 318.32**	**€ 243.68**	**€ 159.21**
Long-Term Debt	€ 1,423.54	€ 1,513.36	€ 1,567.67	€ 1,584.15	€ 1,648.04	€ 1,630.01	€ 1,640.98	€ 1,707.82	€ 1,775.23	€ 1,843.99	€ 1,915.23	€ 1,989.59
Other non-current liabilities	€ 290.29	€ 378.47	€ 306.84	€ 315.58	€ 245.60	€ 241.56	€ 296.39	€ 305.75	€ 310.16	€ 315.40	€ 320.99	€ 327.27
Total Non-Current Liabilities	**€ 1,713.83**	**€ 1,891.83**	**€ 1,874.52**	**€ 1,899.73**	**€ 1,893.64**	**€ 1,871.57**	**€ 1,937.37**	**€ 2,013.57**	**€ 2,085.39**	**€ 2,159.39**	**€ 2,236.22**	**€ 2,316.87**
EQUITY												
Common Equity	€ 129.49	€ 137.04	€ 138.44	€ 160.47	€ 161.03	€ 161.03	€ 161.03	€ 161.03	€ 161.03	€ 161.03	€ 161.03	€ 161.03
Retained Earnings	€ 41.20	€ 33.43	€ 9.24	€ 46.75	€ 78.31	€ 132.84	€ 152.38	€ 179.11	€ 215.05	€ 260.18	€ 317.32	€ 387.79
Other Reserves	€ 411.77	€ 393.66	€ 448.20	€ 610.40	€ 466.48	€ 639.85	€ 495.06	€ 501.30	€ 504.24	€ 507.74	€ 511.47	€ 515.66
Equity Attributable to non Co	€ 104.60	€ 158.59	€ 155.68	€ 248.77	€ 251.00	€ 253.21	€ 195.31	€ 201.47	€ 204.38	€ 207.83	€ 211.52	€ 215.66
Total Shareholders' Equity	**€ 687.06**	**€ 722.71**	**€ 751.56**	**€ 1,066.39**	**€ 956.82**	**€ 1,186.93**	**€ 1,003.77**	**€ 1,042.92**	**€ 1,084.71**	**€ 1,136.77**	**€ 1,201.33**	**€ 1,280.13**
Total Liabilities & Equity	**€ 2,649.07**	**€ 2,859.94**	**€ 2,823.84**	**€ 3,215.89**	**€ 3,405.54**	**€ 3,573.56**	**€ 3,387.72**	**€ 3,499.41**	**€ 3,552.02**	**€ 3,614.48**	**€ 3,681.24**	**€ 3,756.20**

Source: *Author's Analysis*

Appendix 19: Revenue Forecast Breakdown *(in € millions)*

Revenue Schedule	FY19 Actual	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Actual	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	FY28 Forecast	FY29 Terminal
Sales Volume Growth						9.1%	9.1%	9.1%	9.1%	9.1%	9.1%
Pricing Increases						(2.0%)	(2.0%)	(1.0%)	(1.0%)	–	–
Inflation						2.4%	2.1%	2.0%	2.0%	2.0%	2.0%
Distributed energy (MWh)	1,728,483	2,072,754	2,791,600	3,133,100	3,353,700	3,658,708	3,991,456	4,354,467	4,750,492	5,182,534	5,653,869
PV Parks	985,550	1,047,911	1,851,500	2,136,500	2,105,900	2,297,425	2,506,368	2,734,315	2,982,992	3,254,286	3,550,253
Wind Parks	742,933	1,024,843	940,100	996,600	1,247,800	1,361,283	1,485,088	1,620,152	1,767,500	1,928,248	2,103,616
Price per PV MWh	€ 0.000203	€ 0.000189	€ 0.000127	€ 0.000157	€ 0.000142	€ 0.000140	€ 0.000137	€ 0.000135	€ 0.000134	€ 0.000134	€ 0.000134
Price per Wind MWh	€ 0.000085	€ 0.000076	€ 0.000083	€ 0.000122	€ 0.000080	€ 0.000078	€ 0.000076	€ 0.000076	€ 0.000075	€ 0.000075	€ 0.000075
PV Parks	€ 200.10	€ 198.50	€ 234.70	€ 334.60	€ 299.80	€ 320.52	€ 342.68	€ 370.11	€ 399.73	€ 436.09	€ 475.75
Wind Parks	€ 63.10	€ 77.50	€ 77.90	€ 121.90	€ 99.30	€ 106.16	€ 113.50	€ 122.59	€ 132.40	€ 144.44	€ 157.58
PV Services	€ 4.70	€ 4.60	€ 0.10	€ 6.10	€ 55.00	€ 56.32	€ 57.50	€ 58.65	€ 59.83	€ 61.02	€ 62.24
Asset Management	€ 11.60	€ 16.50	€ 19.00	€ 24.00	€ 28.90	€ 29.59	€ 30.22	€ 30.82	€ 31.44	€ 32.06	€ 32.71
Revenue	€ 273.80	€ 292.30	€ 331.70	€ 486.60	€ 469.70	€ 512.60	€ 543.90	€ 582.17	€ 623.39	€ 673.61	€ 728.27

Source: *Author's Analysis*

Disclosures and Disclaimers

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I disclose that AI tools were employed during the development of this thesis as follows:

- AI-based research tools were used to assist in the literature review and data collection.
- AI-powered software was utilized for data analysis and visualization.
- Generative AI tools were consulted for brainstorming and outlining purposes. However, all final writing, synthesis, and critical analysis are my own work. Instances where AI contributions were significant are clearly cited and acknowledged.

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Jasper Franz Leclerc, 30th June 2025

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