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Team B

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Cenergy Holdings S.A. (Hereafter "Cenergy", the "Company" or the "Firm") is a Greek industrial company, engaged primarily in the production of cables and steel pipes, with a strong presence in the Greek and European markets.

Figure 1: Cenergy's Overview

Key Figures	
Target Price	€ 8.81
Last Close (26/1/2024)	€ 7.43
Dividend Yield 2024F	0.74%
Total Upside	19.33%
Shares Outstanding ('000s)	190,163
Market Cap (€ '000s)	1,412,909
52-Week Low	€ 3.50
52-Week High	€ 7.53
P/E 2024F	15.00
EV/EBITDA 2024F	10.00
Free Float (%)	20.22%

Source: Team Analysis

INVESTMENT SUMMARY

We issue a **BUY** recommendation on Cenergy Holdings with a **target price of €8.81**, representing a **total return of 19.33%**, which breaks down in an **18.60% upside potential on the closing price of €7.43** on 26/01/2024 (Figure 2), plus a **dividend yield of 0.74%** (Figure 1). Our valuation relies on a 59.35% / 40.65% mixture of a Discounted Cash Flow Model and a Comparable Companies Analysis. The target price we suggest translates into a 2024F P/E of 15.00x, which is below the historical average of 17.44x (average 2018A-2022A). We are confident that the Company will achieve a robust five-year EPS CAGR of 18.15%, (FY23-FY28), driven by: **(1) The significant backlog of more than €3B that Cenergy possesses, (2) The substantial share that Cenergy holds in the highly concentrated markets of cables and steel pipes, (3) The revitalizing Growth in the Steel Pipes Industry, (4) the Company's healthy financial position.**

Soaring Backlog and Global Dominance on the Horizon

Cenergy has achieved an impressive increase in its backlog from €2B in October 2022, to more than **€3B in September 2023**. This is attributed to the Company's high specialization and the robust demand for both cables and pipes, especially for cables. Given Cenergy's investment in cables and the upcoming doubling of submarine cable production (Late 2024F) (Figure 3), the company is positioned to strengthen its backlog. In addition, the Company has established a **global presence** (indicative: cables project in a wind farm in Taiwan and a pipeline project in Chile), with Greece being the dominant region, contributing to less than one-third of the firm's revenues.

Navigating Concentrated Markets for Sustainable Growth

The markets of cables and steel pipes are both highly concentrated according to our Herfindahl-Hirschman Index analysis (Figure 9, Figure 10), supported by the high barriers to entry (Appendix – 4.1 Porter's five forces), empowering the Company to **be a catalyst in the shift toward sustainable energy**. Considering its favorable position, Cenergy is capable of implementing **strong pricing**. The Company's competitive position is maintained and enhanced by its strategy, leading to strong single-digit revenue growth and, therefore, **wider profit margins**.

Revitalizing Steel: Cenergy's Triumph over Challenges

Steel pipes constitute around one-third of the Company's total revenue in 2022. However, the industry has **confronted challenges due to disruptions** such as the COVID-19 pandemic and geopolitical influences affecting oil and gas prices, which are highly correlated with the demand for projects in steel pipes, from 2019A to 2022A, freezing the demand for steel pipes. We expect **demand to be back to higher levels in 2024F** (2018A levels), with prospects underpinned by the demand for hydrogen-certified pipes. We are positive that shortly, Cenergy is going to reach the **peak of the plant's utilization** supported by the fast-growing backlog and the increasing demand for steel pipes.

Cenergy's Promising Financial Outlook

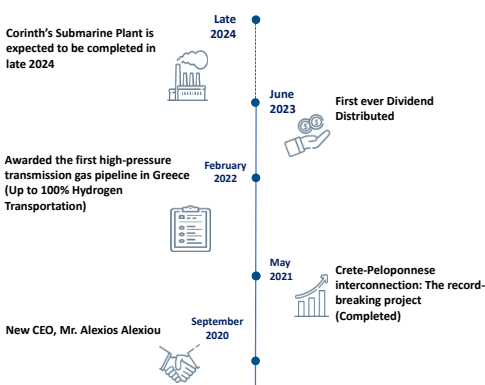
We maintain an optimistic perspective that Cenergy will present a sound financial position with an average EBITDA margin of 13.46% for the years 2024F to 2028F, pointing to the continuation of the double-digit EBITDA growth trend established in recent years, which depicts the **improvement in the Company's operational efficiency**. Additionally, with an average expected ROE of 20.83% (2024F-2028F) compared to 14.85% (2019A-2023E), we anticipate the firm to be more profitable. The blend of higher profitability and strong cash flow generation leads to a **decreased Debt/Equity** ratio from 1.68 (2019A-2023E) to 0.798 for 2024F to 2028F. Finally, the average CFO/CAPEX for (2024F-2028F) is forecasted to be 236.77% based on our analysis, which will provide Cenergy the opportunity to **finance its future CAPEX investments mainly with its cash flow generation**, confirming the management assumption.

Figure 2: Cenergy's Relative Share Performance



Source: Team Analysis

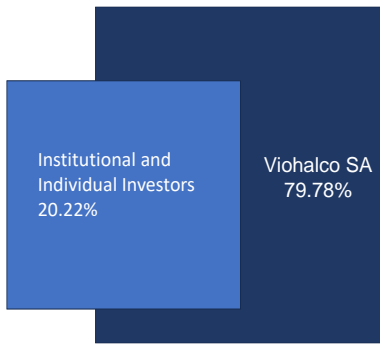
Figure 3: Cenergy's Corporate Highlights



Source: Team Analysis

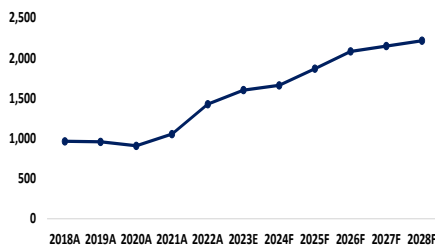
Key Financial Metrics	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Revenues (€ '000s)	1,054,203	1,426,008	1,602,077	1,660,862	1,868,363	2,083,492	2,150,054	2,216,880
EBITDA (€ '000s)	91,216	135,524	204,859	215,923	243,624	281,205	294,005	312,449
EBITDA Margin (%)	8.65%	9.50%	12.79%	13.00%	13.04%	13.50%	13.67%	14.09%
Net Profit (€ '000s)	29,220	67,200	82,419	111,740	135,646	165,355	175,187	188,926
Net Profit Margin (%)	2.77%	4.71%	5.14%	6.73%	7.26%	7.94%	8.15%	8.52%
EPS	0.12	0.32	0.43	0.59	0.71	0.87	0.92	0.99
EPS Growth	-10.88%	173.65%	36.41%	35.58%	21.40%	21.90%	5.95%	7.84%
ROE	10.53%	19.67%	20.02%	22.05%	22.05%	22.12%	19.74%	18.19%
ROIC	5.43%	8.66%	9.38%	11.33%	12.92%	14.40%	14.49%	14.49%
P/E (x)	21.43	9.74	12.74	15.00	12.36	10.14	9.57	8.87

Figure 4: Shareholders Structure



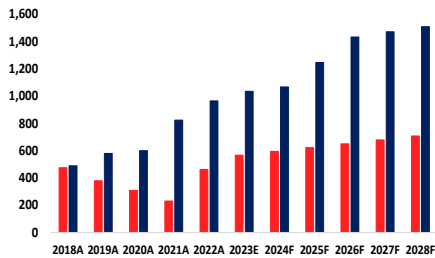
Source: Company

Figure 5: Total Revenues (in € millions)



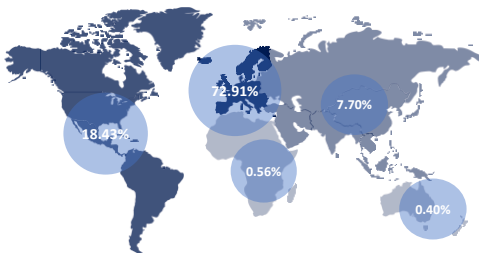
Source: Team Analysis

Figure 6: Revenues Breakdown by Segment (in € millions)



Source: Team Analysis

Figure 7: Geographical Breakdown by Continent



Source: Team Analysis

BUSINESS DESCRIPTION

Cenergy Holdings S.A. is a Belgium-based Company, with most of its productive activity in Greece, publicly listed on Euronext Brussels and Athens Stock Exchange. Cenergy operates as a subsidiary of Viohalco S.A., a holding company for various prominent metal processing firms throughout Europe, employing more than 2,600 specialized people. Viohalco S.A. holds 79.78% of the Company's voting rights while the remaining 20.22% is publicly traded and owned by institutional and individual investors (Figure 4). Since its establishment in 1949, **Cenergy has become a leading player in the manufacturing and selling of cables, steel pipes, and other high-added-value products with a global reach.**

Diversified Excellence: Cenergy Holdings' Product Portfolio

Cenergy Holdings is divided into two distinct segments; Cables, through Hellenic Cables, and Steel Pipes, through Corinth Pipeworks. The cables segment delivers the majority of Cenergy's revenue stream (68% in 2022A) and is expected to further grow its contribution based on the project backlog (Figure 6). **Hellenic Cables** offers a wide range of **cable products**, both underwater and terrestrial, with critical applications including energy transmission, telecommunications, or construction, among others. A remarkable aspect of its fully vertically integrated operations is that Hellenic Cables has the capacity to deliver "**Turnkey Solutions**". This allows the firm to participate in a wide range and number of public tenders and offer tailored business solutions. At the same time, the company caters to energy transition through **renewable energy solutions (RES)**, while the ongoing advancement of its products and services ensures **high productivity in a cost-efficient manner.** Hellenic Cables is also diversified in production as it has set up five manufacturing plants in Greece, Romania and Bulgaria. **Corinth Pipeworks** maintains a portfolio of onshore and offshore pipeline projects, while it also offers casing services for transmission pipelines (oil, gas, and hydrogen). Operations are housed in a state-of-the-art industrial plant in Thisvi, Viotia, Greece, while a substantial amount is set aside refinanced to maintain its high standards. Currently, the Company evaluates wind energy and assesses the potential entry into projects and offshore foundations. The Company's investments in Research and Development mainly focus on the **efficient transportation of hydrogen and Carbon Capture and Storage technology**, expecting to make a meaningful contribution to climate change.

Global Revenue Landscape: Cenergy's Customer Distribution

In 2022, the Company achieved a total revenue of €1,426M as indicated in Figure 5. Regarding geographical distribution, a predominant share of approximately 73% of Cenergy's revenue was generated from the European market amounting to €1,040M in the same fiscal year. American market contributed 18% to the Company's overall revenue, totaling €263M, followed by Asia with 8%, corresponding to €110M. In contrast, both Africa and Oceania individually contributed less than 1%, approximately €7M each. (Figure 7), (Figure 8).

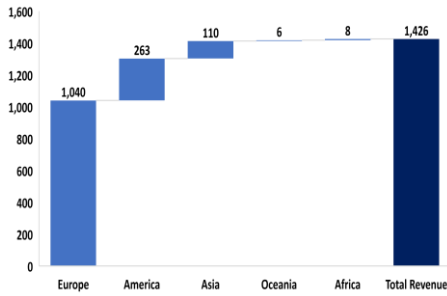
INDUSTRY OVERVIEW & COMPETITIVE POSITION

Regarding the cable sector, wires and cables have an expected CAGR from 2023 to 2028 of about 5.5%, reaching the value of \$282.97B by 2028, while in the power cables sector, the CAGR for the period from 2024 to 2032 is about 6.4%. Concerning the steel pipe market size, there is an expected growth, reaching \$142B by 2033, from \$97.8B in 2023. An event that corresponds to an overall revenue growth of CAGR to 3.8% from 2023 to 2033.

Cables: Empowering Europe's energy future

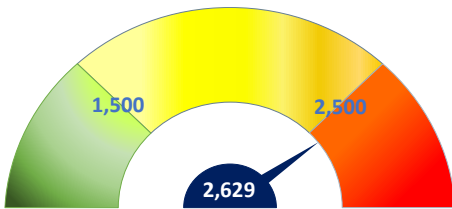
The rising worldwide demand for energy translates to greater requirements for modern transmission and distribution networks in Europe. Accordingly, this surge results in a growing expansion of wire and cable goods in the region. **High-performance cables, crucial to supporting major infrastructure initiatives,** are driving the growth of the wire and cable industry. More specifically, it is expected that the **high-voltage cables market will generate more than \$12.45B from 2023 to 2028.** Another driving force behind the development of the telecommunications industry is the extensive internet adoption, 5G and the enhancement of communication networks. These developments need fiber optic cables and high-speed data transmission lines. Additionally, **the floating power plant market in Europe is expected to reach \$7.4B by 2027,** due to the rising demand for clean energy sources, lack of power infrastructure and need for secondary power sources. The cable market is distinguished in low, medium, and high-voltage cables. The first category is expected to experience an increase of \$32.78B from 2023 to 2028. The forecasts for Europe's Medium Voltage Cable Market suggest an increase of \$2.76B from 2023 to 2028, while the high voltage cables are anticipated to account for \$12.49B in 2027. Finally, the submarine cables are expected to increase from \$12.9B in 2023 to \$22.3B by 2028 a CAGR of 11.5%. That means a growth of CAGR of 11.5%. from 2021 to 2028.

Figure 8: Cenergy's Revenue Breakdown by Continent in 2022 (in € millions)



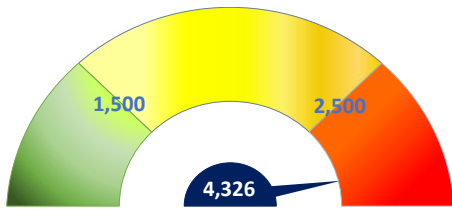
Source: Team Analysis

Figure 9: HHI Cables



Source: Team Analysis

Figure 10: HHI Steel pipes



Source: Team Analysis

Figure 11: Porter's Five Forces



Source: Team Analysis

Steel Pipes Renaissance: Green Journey in Europe

The steel pipes sector is expected to reach a market value of \$6.2B by 2028 with a CAGR of 2% from 2023 to 2028. Steel pipes constitute a vital component for various industries including **industrial manufacturing, fluids transportation, the oil and gas industry, and water supply** among others. The **driving force** behind the growth of the entire sector in the European region stems from **investments** in the two industries. However, it is crucial to focus on the intensified environmental concerns. Responding to this challenge, Cenergy has implemented a strategy of **Carbon Capture and Storage (CCS)**, a technology designed to mitigate the release of carbon dioxide (CO₂) into the atmosphere, particularly from large industrial sources such as power plants and industrial facilities. The Company's steel pipes are destined mostly for the transportation of petroleum and natural gas. By developing innovative solutions and leading the manufacturing of high-pressure gas pipelines, certified to **transport up to 100% hydrogen**, Cenergy is working towards achieving net zero carbon emissions and advancing the hydrogen era. Notably, it stands as one of the first companies, globally, to participate in the European Alliance for Pure Hydrogen (Hydrogen Alliance) as well as in Hydrogen Europe.

Connecting Continents: America Unleashes Billions in Growth

The wire and cable industry both in South and North America is facing tremendous growth. Regarding the South, **smart city projects combined with infrastructure development**, and the demand for **data and speed connectivity**, have resulted in a predicted rise of \$3.73B from 2023 to 2028, including all types of cables (high voltage, medium, low, and optical fiber). The submarine power cables market is estimated to reach \$372.11M by 2028. In North America, the demand for cables has increased due to the ongoing **replacement and rebuilding of electrical infrastructure in the region**, while the increasing production of renewable energy and government efforts to enhance transmission and distribution systems play a crucial role. The industry is expected to achieve a \$55.52B market size, registering a CAGR of 5.8% during the forecast period. The submarine power cable market in the North American region is forecasted to reach the level of \$2.63B by 2028.

The steel pipes' market size in America is estimated at \$24.8M in 2023, with a projected CAGR of approximately 3.6% between 2023 and 2033, corresponding to a value of \$35.3M, which depicts a propitious growth. The estimates are a result of the multiple uses of steel pipes, including but not limited to construction, mining, industrial applications as well as the transportation of oil and gas.

Technological Momentum: Asia Pacific Markets

The wire and cable markets in the Asia-Pacific regions are forecasted to grow to \$107,264M by 2028. This outcome is derived from **the fourth industrial revolution** which includes the **industrial Internet of Things and smart manufacturing**, with various aspects such as machines, products, and processes influenced by new technological advancements. On a similar note, the submarine cables market is estimated to reach a value of \$1,310M by 2028.

Regarding the pipeline market, a CAGR of more than 2.2% is anticipated throughout 2024 - 2029 in the region, indicating a moderately fragmented market. It is forecasted that the pipeline repair and maintenance segment is going to have a significant market share, while the natural gas pipeline infrastructure is expected to witness growth mainly driven by China's public investments.

Cenergy's Dominance Fuelled by Strategic Advantages

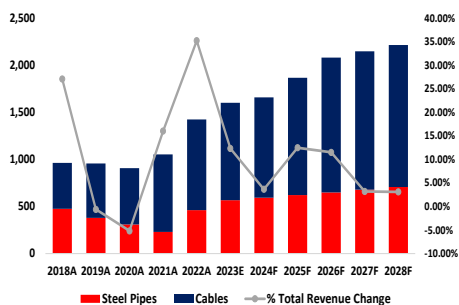
Cenergy Holdings constitutes a considerable force both in the cables and the steel pipes sectors. In the **cable market**, the Company holds approximately 3.31% of the global market share, **positioning itself as the sixth largest among its competitors**. Meanwhile, in **steel pipes**, Cenergy's market share stands at 2.06%, **securing the fifth position in the sector**. The main competitive advantages of the Company are the exclusive access to a nearby port in Thisvi resulting in lower freight costs, rapid shipments of raw materials, and exports for products due to minimal delay. The Company's diverse product portfolio enables operations in a range of dynamic markets such as energy transfer, renewable energy sources, telecommunications, gas, and liquid fuel, as well as construction. However, the key advantage of the Company resides in the signed Contracts for Projects, allowing it to perform better production and financial planning.

Turnkey Projects and Vertical Production enable Cenergy to have full control over the design, manufacturing, supply, and installation of the cable system. Looking ahead, the Company plans two investment projects regarding the cables segment, with a strategic focus on both capacity expansion and product research, aiming to establish a clear competitive advantage.

Cenergy's Competitive Landscape

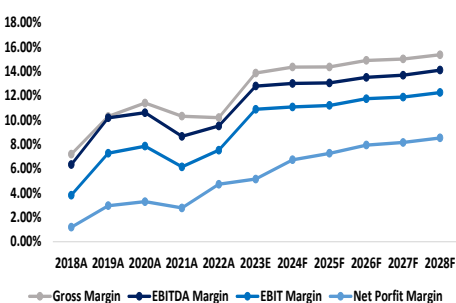
The cables and steel pipes industries are **highly concentrated**, as evidenced by the Company's margins and the Herfindahl-Hirschman Index. In the cables market, the HHI is about 2,629.07 (Figure 9), and in steel pipes 4,326.00 (Figure 10). The individual competitive forces range from Low (1) to very High (4). According to our analysis (Appendix – 4.1 Porter's Five Forces), the sectors' high expertise and product complexity set the threat of new entrants, and the bargaining power of buyers as Low (1). Simultaneously, the companies' difficulty in diversifying their supplier base results in a moderate (1.5) bargaining power of suppliers. The threat of substitutes is considered medium (2) due to electrical equipment's application in various domains including solar and wind energy. Additionally, the imbalance between **the limited supply and heightened demand** intensifies the competition and classifies the rivalry among the existing competitors as very high (4) (Figure 11). Cenergy faces distinct competitors within each sector, and as a result, the positioning of the Company differs in each segment. **The Company consistently outperforms industry peers in terms of profitability**. Specifically, Cenergy secures the 2nd place in both EBITDA margin and Return on Equity (ROE). However, its standing drops to the 8th position in liquidity and capital structure ratios. This can be

Figure 12: Revenue Breakdown per Segment (in € millions)



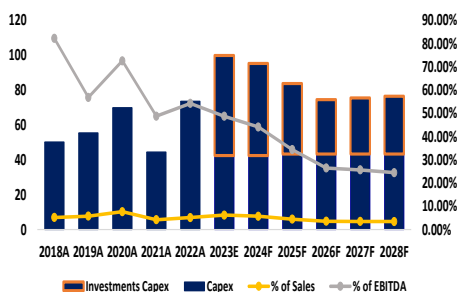
Source: Team Analysis

Figure 13: Key Profitability Margins



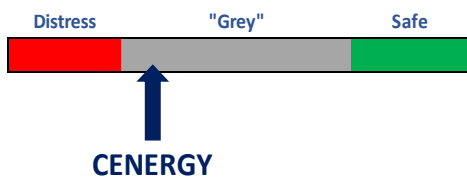
Source: Team Analysis

Figure 14: Capex (in € millions)



Source: Team Analysis

Figure 15: Altman Z-Score (2023E-2028F)



Source: Team Analysis

attributed to the substantial short-term debt, as reflected in the current and quick ratios for liquidity, and the Debt/Equity ratio for capital structure. Additionally, the notable increase in Euribor further impacts Cenergy's position, placing it in the same rank for coverage ratios, particularly with the lowest Interest Coverage Ratio (ICR). These factors collectively contribute to Cenergy's performance relative to industry benchmarks ([Appendix – 4.3 Competition Ratios Analysis](#)).

FINANCIAL ANALYSIS

Revenues Increase in a Shifting Landscape

Cenergy's revenues are forecasted to grow by an estimated **CAGR of 6.71% (2023E – 2028F)** ([Figure 12](#)). The Company's revenue streams are primarily cables and steel pipes. For the **cable segment**, the **demand drivers are the green energy transition** based on goals for net zero emissions. The **high specialization in cables for offshore wind farms** is leading to a growing backlog, resulting in the forecasted **CAGR of 7.83%** for the period 2023E-2028F. For the **steel pipes segment**, the **demand for projects is primarily correlated with the prices of oil & gas** and influenced by the **emerging sector of Hydrogen transition and Carbon Capture & Storage (CCS)**, where Cenergy is increasing its market share and establishing a leadership position. The CAGR forecast for steel pipes is **4.53%** for the period 2023E-2028F ([Appendix 1.1 – Assumptions](#)). Historically, revenues from a geographical aspect are highly concentrated in Europe (including the UK) with a 3-year average of 82.12% of total revenues and in America with 8.78% but Cenergy has a global presence in all continents. Considering the backlog, the revenue distribution is expected to shift slightly on a more global scale. Cenergy sells its products, for both segments, retailing or turnkey projects. Due to the increasing backlog and the future investment plans, Cenergy is **reforming its strategy focusing more on turnkey projects**, where profit margins are wider than retailing. Historically revenues deriving from projects represented 64.61% of the total revenue (2022A) and we forecasted a further increase up to 69.90% in 2028F, reflecting major changes in margins.

Profitable Horizons: Cenergy's Projected Margin Growth and Financial Optimism

Cenergy is witnessing a **steady and significant increase in its margins** ([Figure 13](#)). We forecasted that the Company will continue to grow consistently its gross margin as a result of the considerable backlog it possesses, leading to **stronger pricing**. In addition, the main expense of the Cost of Sales, which mainly consists of **raw materials**, is **increasing at a slower pace** ([Appendix 1.1 – Assumptions](#)). The aforementioned result in a mean gross margin for the period 2023E - 2028F of 14.63% (gross margin of 2018A - 2022A, 9.87%). Given that, the gross margin is increasing and Opex as a percentage of revenue is remaining stable. The increase in the production capacity of submarine cables (an increase of 50,000 tons of high-voltage cables, late 2024F), leads to undertaking more submarine cable projects, where Cenergy can achieve higher profitability related to other types of products. As a consequence, both EBITDA and EBIT margins are expected to grow in the next 5 years compared to 2018A-2022A with a CAGR of single digits around 2% annually. The average rate of EBITDA margin for 2023E-2028F is 13.35% and for EBIT margin is 11.50%. The de-escalation of interest rates in the next five years will lead to a decrease in net finance cost and consequently reflects the increases in EBIT margin to the net profit margin ([Appendix 5.1 – Ratios Analysis](#)).

Investing for Tomorrow: Cenergy's Capital Expenditure Roadmap

Cenergy's current **2-year major investment project of €80M**, is expected to be completed by the end of 2024F. This investment aims to double the production of submarine cables. By this time **Corinth's plant will have reached a production capacity of 100M tons per year**, while additional storage space and an extensive upgrade of the plant's port facilities will occur. The second investment project is expected to be completed by the end of 2025F. Cenergy has also made a **strategic acquisition of land**, to initiate the production of low and medium-voltage cables and create a center of excellence for onshore cables. The total amount of **this project does not exceed the amount of €50M**. The CAPEX of 2023E is complemented by investments of single-digit millions aimed at small improvements in the production of steel pipes. It is essential to highlight that the Company spends slightly less than €45M for maintenance purposes each year. Cenergy Holdings' intention for the future is to ensure that **Capital Expenditures will remain above €70M** ([Figure 14](#)). As a result, the CAPEX/sales ratio in 2023 will reach 6.24% and will face a steady decrease ending up at 3.46% in 2028.

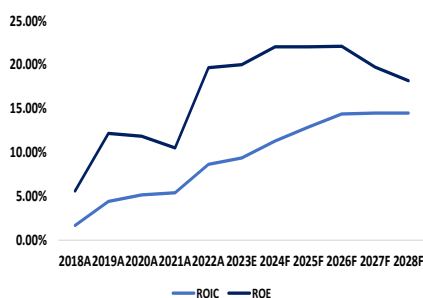
Unveiling Cenergy's Cash Flow Patterns and Strategic Predictions

While Cenergy's operating activities demonstrated fluctuations, leading to both positive and negative cash flows, they consistently present a negative correlation with financing cash flows. However, a change in this pattern is foreseen. As increasing needs for working capital will result in borrowings, **cash flows from operating activities are anticipated to continuously increase**. Regarding cash flows from investing activities, they remain above 4% of capital expenditures during the examined period, a trend that is expected to persist in the following years.

Financial Fortitude: Cenergy's Strategic Debt Management and Solvency Outlook

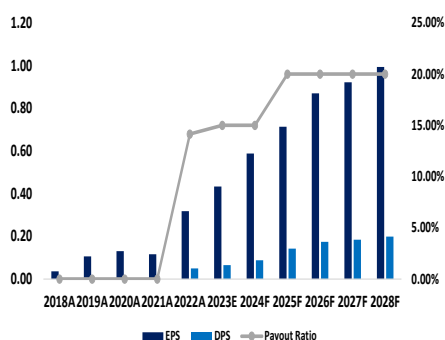
Cenergy Holdings has strategically maintained a conservative Debt/Equity ratio, standing at 1.76 in 2022A, and anticipates a consistent decrease below 1 until 2028F. Based on the Company's Altman Z-Score Analysis ([Appendix – 5.4: Altman Z-Score Analysis](#)), whose average score is 1.94 (FY2023-FY2028) and is placed in the "Grey Area" ([Figure 15](#)), a **stable financial state** is indicated for the projected period. The **Net**

Figure 16: ROE - ROIC



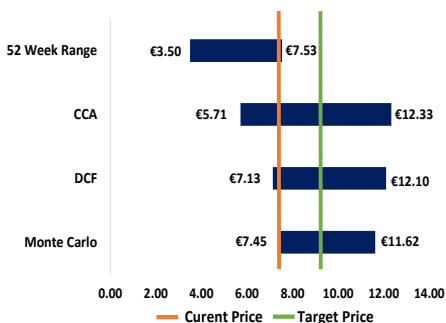
Source: Team Analysis

Figure 17: Dividend Policy - EPS



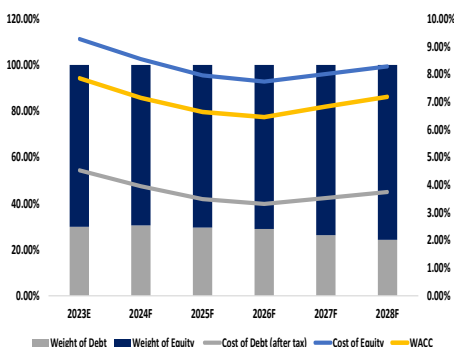
Source: Team Analysis

Figure 18: Football Field



Source: Analysis Team

Figure 19: WACC Components



Source: Team Analysis

Debt/EBITDA ratio is calculated at 3.23 in 2022A and for the period 2023E-2028F is **forecasted to remain under 3**, verifying the management intentions. The aforementioned reflect Cenergy's intention to **finance its investment activities from its operating cash flow and cash reserves**. It is crucial to mention that the vast majority of Cenergy's debt is short-term (over 70% of total debt), due to the need to finance its Working Capital.

Rewarding Shareholders with High Returns and Dividends

Historically, Cenergy's strategic approach and financial conditions have not supported the distribution of dividends. Cenergy **outperformed its peers** with an average ROE of 11.97% vs 7.45% and an ROIC of 5.08%, slightly lower than the industry average of 5.80% for FY2018-FY2022. Based on our projections, we anticipate a **steady increase in these key profitability metrics**, averaging 20.83% and 13.53% in the 2023E-2028F period (Figure 16). This notable performance led the Company's Board of Directors to approve the **first distribution of a gross dividend of €0.05 per share**, a decision foreseen to persist. As per the management guidelines, the Company is **willing to maintain its dividend policy**, and the amount of dividends that will be shared depends on the future performance of the Company and the future share price (Figure 17).

VALUATION

We issue a **BUY** recommendation on Cenergy Holdings (CENER.AT) with a **target price of €8.81**, representing an **18.60% upside** from the closing price of €7.43 per share on January 26th. Our target price derives from a **combination of a Discounted Cash Flow Model (DCF) and a Comparable Company Analysis (CCA)**. We contend that these approaches are highly suitable as they take into account both the growth attribution and the valuation profiles of comparable companies. We applied **59.35% weight to DCF and 40.65% weight to the CCA model** (Appendix 6.7 – Corporate and Valuation Weighting Approaches). The decision to assign lower importance to the CCA methodologies is driven by the limited availability of comparable companies that closely resemble Cenergy, primarily attributed to its **distinct holding portfolio**. At the same time, the weight of the DCF method captures the expected strong growth rate in EBITDA due to widening margins and the revenue increases of the Company. However, to further enhance our analysis, we examined **different weight scenarios on the valuation methods** with a 40% - 80% range on DCF and a 20% - 60% range on CCA, which would yield a target price range of **€8.69 - €8.94**, almost the same as our current target price of €8.81. A **multivariable sensitivity analysis** was also performed (using the 25th and 75th percentile), resulting in a price range of **€7.13 - €12.10** (Figure 18).

Discounted Cash Flow (DCF)

We used a **two-stage DCF model (Decelerating Growth - Stable)** for Cenergy. In general, we consider that a two-stage model is more appropriate for the Company, given that Cenergy is currently **experiencing a high growth phase**, and we anticipate a transition to a mature growth phase. We estimate that Cenergy will generate **strong single-digit growth rates until 2028** when the Company will shift to a mature phase, where the terminal growth rate is used. The high barriers to entry in the industry further secure our projections for the 1st stage of DCF (Appendix – 4.1 Porter's Five Forces). Hence, the risk of new competitors impeding the Company's growth opportunities is relatively low. The forecasts are the outcome of a thorough bottom-up analysis, drawing upon the Company's past performance, guidance from management, and our evaluation. After subtracting Net Debt from Enterprise Value, the **implied price from DCF is €9.07, a 22.10% premium** from the current price, and reveals that the Company is currently undervalued. (Figure 18). Additionally, we conducted a **rigorous multivariable sensitivity analysis**, evaluating the two key inputs in our DCF model: the **Weighted Average Cost of Capital (WACC)** and the **long-term growth rate**, implying a **price range of €5.59 - €18.63**. Below, we analyze the most critical factors influencing our model (Appendix – 6.2 Discounted Cash Flow Model).

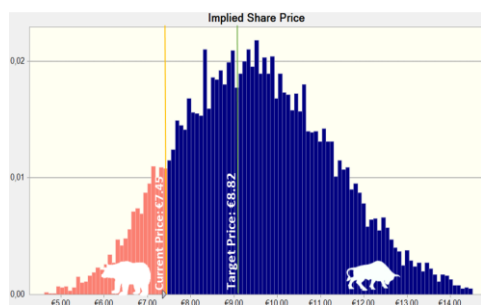
Bottom-Up Beta

We decided to estimate Bottom-Up Beta, which is determined by Professor Aswath Damodaran, as a more business-oriented beta, so that we could apply more effective assumptions. We reached this decision because the regression betas have a strong tendency to be significantly influenced by the selected time series. The sample size of businesses we used is 26, 10 of which operate in the steel pipes sector and 16 in the Cables sector. The median unlevered beta for the steel pipes sector was at 0.79 and for the cables was 0.62. After we subtracted the influence of cash, we obtained a Pure-play Beta for the steel pipes sector of 0.75, while the respective figure for cables is 0.72. To end up at pure play beta we used the Cash to Firm value of each industry, which currently is at 11.56% for steel pipes and 12.05% for cables. The impact of risk-free cash positions is mitigated by calculating the pure play beta. This type of beta is unaffected by idiosyncratic factors, decisions regarding capital structure, or cash holdings. Consequently, it evaluates the relative risk associated with the Company's operations for its shareholders. Afterward, we weighted the median pure-play betas of each sector according to the revenues that Cenergy generates from each sector. Finally, we levered up and re-cashed the weighted pure-play beta to estimate **Cenergy's bottom-up beta of 1.04**. (Appendix – 6.6 Bottom-Up Beta)

Weight Average Cost of Capital (WACC)

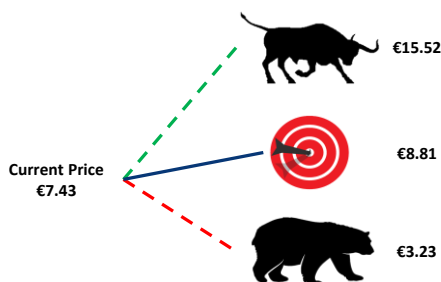
In our valuation, we calculated a **WACC of 7.86%** (Figure 19). This measurement is based on a Cost of Equity of 9.27% and an after-tax Cost of Debt of 4.53%. A **3-year Revenue Weighted average between the real Risk-Free-Rates** among all the regions that Cenergy reported at annual statements' revenue by geographic region, was considered as the most appropriate risk-free-rate for Cenergy. In our valuation, as

Figure 20: Monte Carlo Simulation



Source: Team Analysis

Figure 21: Scenario Analysis



Source: Team Analysis

Figure 22: Comparable Companies Analysis

	EV/Revenue (x)		EV/EBITDA (x)		P/E (x)		KNN Weights
	2023E	2024F	2023E	2024F	2023E	2024F	
Cables							
NEXS.PA	0.54	0.54	6.29	6.26	14.2	13.77	27.84%
NKT.CO	1.08	0.94	10.85	8.86	32.46	24.86	22.08%
PRY.MI	0.88	0.87	8.63	8.78	14.74	15.35	15.24%
4142.SE	2.01	1.93	20.68	19.03	30.09	25.9	12.79%
006260.KS	0.41	0.39	7.47	7.02	7.43	6.07	12.53%
603606.SS	3.49	2.67	17.65	12.71	23.04	16.04	9.53%
							100%
Steel Pipes							
1320.SE	2.23	2.12	11.02	10.93	14.36	16.03	54.02%
WGSR.NS	1.47	0.96	29.69	9.67	25.41	15.57	24.71%
TENR.MI	1.14	1.26	3.49	4.56	5.13	6.86	11.60%
JIND.NS	1.21	1.05	12.75	7.71	7.59	12.72	9.67%
							100%
Target Company							
Cenergy Holdings S.A.	1.17	1.30	9.19	10.00	17.14	14.99	
Median	6.86	6.34	8.84	7.45	6.97	9.03	
Weighted KNN	9.28	8.39	10.68	8.32	8.05	9.57	
Weightings of Multiples	20%		40%		40%		
Weighted Implied							€ 8.43

Source: Team Analysis

Figure 23: K-Nearest Neighbours



Source: Team Analysis

a real risk-free rate for every country, we designated the **10Y Treasury Bond yield minus the corresponding default spread**, which is based on Moody's ratings. We arrived at an **Equity risk premium of 6.55%** which was calculated by weighting the 3-year average revenue by region with the corresponding risk premium by region. The **pre-tax cost of debt is 5.74%**, following the Company's financial statement. When it comes to the **Pre-taxed Cost of Debt of 4.53%**, we calculated it by summing up the risk-free rate plus a premium that the Company pays. The **Levered Bottom-Up Beta we calculated is 1.04** and the **effective tax rate is 21%**. During the analysis period, it is considered that the Weighted Average Cost of Capital (WACC) will vary, and as a result, the weightings applied in WACC projections rely on the anticipated Market value of Equity and Debt. Moreover, to preserve a concept of seasonality, we projected the risk-free rates to follow the expected Federal Funds Rate yearly BPS changes, based on the Federal Funds Rate Futures.

Federal Funds Rates Futures: Navigating Interest Rate Dynamics

We assume that the **risk-free rate will mirror the trajectory** of the respective bond yields in the United States, while the future bond yields will fluctuate, during the examining period. In line with their predominant factor which is interest rates. To account for expectations of the market, we used the monthly average of the Federal Funds Rate Futures for each year. These variations arise because interest rates do not consistently follow a stable path indefinitely. Instead, they adjust in response to the cyclical patterns of the economy, a phenomenon reflected in the Federal Funds Rate Futures. ([Appendix – 6.5 Federal Funds Rates Futures](#))

Terminal Growth

We anticipate the **terminal growth rate to stabilize at 1.67% after 2028**. We ended up with this result based on the weighted average among the **European Union's long-term** forecasted growth rates from the International Monetary Fund and the **US long-term** forecasted GDP from the Federal Open Market Committee (FOMC). Europe is expected to have a growth rate of 1.60% and the USA of 1.90%. After weighting them according to Cenergy's Backlog distribution we estimated the 1.67% terminal growth rate.

Monte Carlo Simulation

We implemented a Monte Carlo simulation to validate our valuation ([Figure 20](#)). Taking into consideration our assumptions ([Appendix – 6.3 Monte Carlo Simulation](#)), we deployed a wide range of scenarios and inputs. After performing 10,000 iterations of the simulation the principal scenario was the **BUY signal with a probability of 87.70% that the price will surpass the current one**, while on the contrary there is only a 12.30% chance that the sell signal will be verified. In an extension of the above, we deduced that a more considerable effect on the output of our model is possessed by the EBIT Margin, and the Terminal WACC, subsequent to Capex, taxes, WC, D&A, Revenue and finally Terminal growth, which **confirms the DCF and the company's growth phase**.

Scenario Analysis

Aside from our base analysis, we performed comprehensive analyses for both Bull and Bear scenarios ([Figure 21](#)), taking into account our three investment theses. In our **Bull scenario analysis, we identified a potential target price of €15.52**. On the contrary, the **Bear scenario pointed to a potential target price of €3.23**. An overall breakdown of our assumptions and the corresponding target prices for each case can be found in [Appendix – 1.1 Assumptions](#).

Comparable Companies Analysis (CCA)

Cenergy has a distinct holding portfolio, operating in both the cables and steel pipes sector. Although there are no identical companies to Cenergy listed, in our analysis, we made **two separate groups of peers**, for cables and steel pipes ([Figure 22](#)). The criteria for the selection of peers were (i) **product portfolio**, due to its unique product characteristics, (ii) **revenue based on projects**, focusing on the operational structure and (iii) **market capitalization**. Regarding each peer group separately, we approach the multiples with **median and weighted average approach** (based on a machine learning algorithm, **K-Nearest Neighbours** ([Figure 23](#)), ([Appendix 6.8 K-Nearest Neighbours](#))), weighted the two approaches equally. The sectors of cables and steel pipes were weighted based on revenue segment breakdown. The multiples analysis resulted in a **relative valuation of €8.43** per share, derived from the average of FY23E and FY24F multiples of 7.71x EV/Revenue, 8.82x EV/EBITDA, 8.41x P/E using a 40% weight on each EV/EBITDA and P/E and a 20% for EV/Revenue. We conclude that Cenergy's share is undervalued with a **13.52% premium** to the current trading price ([Figure 24](#)) ([Appendix 6.4 Comparable Companies Analysis](#)).

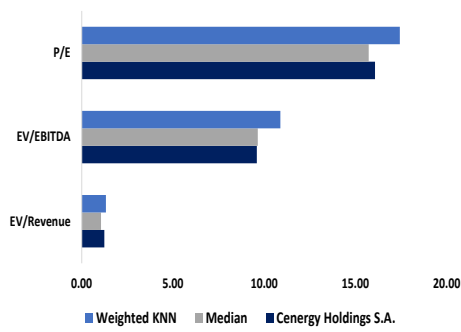
INVESTMENTS RISKS

Business Risks

Operation interruption risk (Product failure, lack of key resources) (BR1)

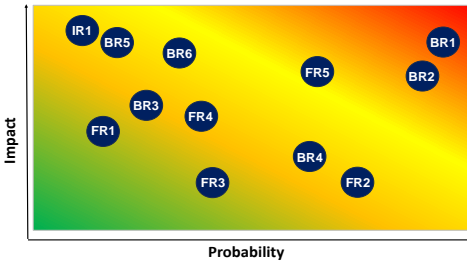
Deterioration in the supply of energy and metals is observed due to geopolitical uncertainty. At the same time, there is a challenge in locating qualified human resources because of economic growth in Southeast Europe. Moreover, Cenergy's responsibility has expanded beyond supply through turnkey projects and the operation of subsidiaries can be threatened by performance-related failures and non-compliance with contractual terms. **Valuation impact:** The Company will be unable to fully utilize the capacity of the plans, leading to negative effects, especially during critical periods that require maximum output. **Mitigation: (1)** Appropriate measures include diversifying the supply base and essential resources as well as establishing

**Figure 24: Multiples Representation
(Revenue weighted, Averages 2023-2024)**



Source: Team Analysis

Figure 25: Risk Impact - Probability plot



Source: Team Analysis

Figure 26: Risk – Mitigation Summary

Risks	Mitigation
Operation Interruption Risk	Supply base diversification and employees' fair compensation
Project Execution Risk	Favorable contracts' terms and proaction for the disruption of the projects.
Channel Effectiveness Risk	Employment commercial professionals per each project
Technological risks	The extensive research and development (R&D) in security auditing
Compliance Risk	Continuous monitoring and alignment with local, European and international laws
Competitor risk	Competitive pricing strategy and annual financial planning
Interest Rate Risk	Hedging with interest rate swaps
Industry Price Risk	Hedging with future contracts and favorable agreements
Foreign Currency	Utilization of forward contracts
Liquidity Risk	Application of debt to uphold its cash reserves above designated level
Credit Risk	Tighter credit policy
Limited Free float	Informed Shareholders about latest strategic movements

Source: Team Analysis

specialized maintenance departments to minimize the risk of obsolescence. **(2)** The Company's human resources management focuses on employees' fair compensation, safety and welfare.

Project Execution Risk (BR2)

Projects are distributed worldwide and have an execution horizon of 2-3 years to complete, provoking an execution risk posed due to macro-environment uncertainties. unanticipated events could lead to the interruption of the proper timeline execution, which results in delayed or total loss of incoming installments. **Valuation Impact:** The non-smooth project execution could lead to unexpected cash flow levels and the need for extra financing, adding extra costs. The finance cost or the total loss of the installments is lowering cash flows which negatively affects the valuation of the Company. **Mitigation:** The Company should make agreements with favorable contract terms and act proactively for the disruption or the dilation of the projects.

Channel effectiveness risk (BR3)

Companies' access to current and potential customers is contingent on distribution channels. **Valuation impact:** Inefficient channels may threaten the smooth distribution of products and the execution of turnkey projects, which increases costs and negatively impacts the Enterprise Value. **Mitigation:** This risk is monitored through regular financial reviews and is addressed by employing commercial professionals for each project/market.

Technological risks (Innovation, Competition, and Cyber-security) (BR4)

As capital-intensive companies, Cenergy's subsidiaries integrate rapidly advancing technology into businesses while managing and enhancing their operations through IT systems. **Valuation impact:** Companies with ineffective monitoring or insufficient investment in the technological framework are threatened by competition as well as Cyber-attacks. This presents a risk to corporate data, smooth operation and legal issues, affecting the operating income and the free cash flow to the firm levels. **Mitigation:** **(1)** The extensive Research and Development (R&D), along with global leaders providing technical support and knowledge transfer are the key drivers for effective risk management. **(2)** By employing the latest technologies in security auditing, the subsidiaries assess potential vulnerabilities and mitigate their exposure.

Compliance Risk (BR5)

Subsidiaries' operational sectors are subjected to local, European, or international laws and regulations that represent the fundamental regulatory areas. **Valuation Impact:** If the legal product requirements change, Cenergy must spend firstly on extra R&D and then in Capex to be aligned. This will decrease the Enterprise value of the Company. **Mitigation:** Cenergy must develop its procedures concerning these matters and be entirely responsible for adhering to them.

Competitor risk (BR6)

Cenergy, as a Company operating in globalized markets is facing various threats mainly with Asian competitors increasing their presence in EU project offers. **Valuation Impact:** The increasing competition will lower the pricing and decrease the Company's profit margins and Enterprise Value. **Mitigation:** Dedication to inclusive and high-margin products is combined with a pricing strategy that responds to market conditions. Additionally, all subsidiaries' annual financial planning evaluates strategic issues derived from competitors' moves.

Financial Risks

Interest Rate Risk (FR1)

The swift rise in the 3M Euribor to 3.43% on average (Figure 27), following the tightening monetary policies by Central Banks, has significantly increased borrowing costs over the last year compared to its previous zero levels. **Valuation Impact:** Interest rate fluctuations are reflected in risk-free rates, part of the pre-tax cost of debt, which affects the WACC. **Mitigation:** To alleviate the risk the Company has recently started hedging the risk by utilizing interest rate swaps to secure fixed loan rates.

Industry Price Risk (FR2) / (Commodity, Raw Materials Price)

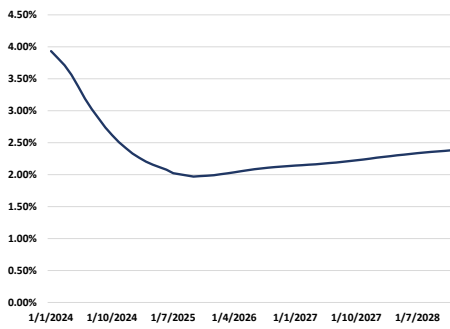
The international geopolitical situation exposed Cenergy Holdings to fluctuations in metal prices, especially copper, aluminum and steel. The Metal Price Lag renders the Company's P&L vulnerable, as the timing between the pricing of metal from its procurement phase until the sale of the finished product deviates. **Valuation Impact:** An increase in raw materials prices will tighten the profit margins, reducing the operating income and decreasing the Free Cash Flow to the Firm. **Mitigation:** To hedge against risk, the Company can safeguard its margins by entering into future contracts and by making better budgeting, combined with favorable agreements for the tactical payments from the customers of the projects.

Foreign Currency (Foreign Exchange) Risk (FR3)

Engaging in international production and commercial activities, Cenergy Holdings is subject to potential losses from foreign currency fluctuations, particularly the USD, GBP and RON. Although the USD appears to be relatively stable, it holds 90% of Cenergy and its companies' total currency risk, making them highly susceptible to the currency's volatility. **Valuation Impact:** The forex fluctuations are reflected in the P&L and asset evaluation, affecting finally the cash flows of the firm. **Mitigation:** The use of financial instruments, in

particular, forward contracts with external partners will help offset the Company's exposure to the volatility of FX rates.

Figure 27: EURIBOR 3-months forecast



Source: Chatham Financial, Team

Liquidity Risk (FR4)

This type of risk pertains to the Company's ability to maintain sufficient cash and cash equivalent to fulfill its obligations. The adequacy of cash & cash equivalents levels is closely tied to Cenergy's performance. During unstable periods, the Company may encounter difficulty in converting its inventory into cash, posing a significant risk of falling below a sustainable level. **Valuation Impact:** A decrease in cash levels has a negative impact on the Enterprise Value of the Company. **Mitigation:** Cenergy must utilize debt to uphold its cash reserves above a specific level. In addition, they should safeguard the cash flows as effectively as possible from any unexpected fluctuation.

Credit Risk (FR5)

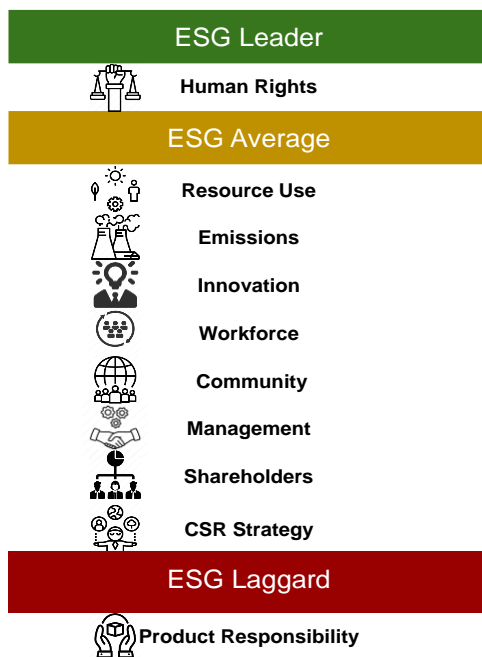
Despite customer diversification efforts, undertaking large projects inevitably leads to revenue concentration. While projects take years to complete, turnover deriving from specific markets being dispersed across time introduces challenges related to credit risk and customer default likelihood. Persistent z-score levels below the critical threshold of 1.81 between 2018A and 2022A, indicate financial distress and may raise concerns about the financial stability of the Company among lenders and investors. **Valuation Impact:** A credit default could lead to lower incoming cash flow, resulting in lower valuation and lower profit margins. **Mitigation:** To prevent customers' default, the Company should employ a tighter credit policy, incorporating credit insurance and monitoring their credit risk.

Investors Risks

Limited Free float (IR1)

Viohalco owns 79.78% of Cenergy's shares, posing a risk of selling off a number of stocks, under certain circumstances, which significantly increases the number of shares outstanding. **Share price impact:** If the increased number of shares offered is mismatched with an increase in demanded shares, then the price of Cenergy will fall rapidly. **Mitigation:** Shareholders must stay informed and watch the latest strategic initiatives of the major shareholder.

Figure 28: Relative ESG



Source: Team Analysis

ENVIRONMENTAL SOCIAL & GOVERNANCE (ESG)

After carefully examining Cenergy Holdings' ESG (Environmental, Social, and Governance) profile, **we propose an "average" rating** for the company compared to its industry peers, particularly lagging in governance aspects (Figure 28). We also developed an Importance-Influence matrix in order to identify the Key ESG metrics for the industry. (Figure29) In this research, we support with strong confidence that Cenergy will enhance shareholders' trust in its brand beyond the balance sheet.

Environmental

Climate Change and Energy (CCE) Importance: High Influence: Medium

Cenergy Holdings and its subsidiaries are fully committed to sustainable development (having invested €2.3M in 2022) and have integrated it into their strategy and decision-making processes. The cable sector has entered into a **renewable energy supply contract** for the second consecutive year decreasing by 14% the total greenhouse gas emissions (Figure 30). Hellenic Cables has already committed to the **Science-Based Target Initiative (SBTi)** to achieve short-term (by 2030) and long-term carbon emission reduction goals **that align with the 1.5°C pathway**, aiming for net-zero emissions before 2050. Corinth Pipeworks is in the final stages of securing renewable energy purchase agreements, which are expected to provide at least 80% of the energy from renewable sources by no later than 2025. As part of its commitment to decarbonization, Corinth Pipeworks has publicized its targets for a 50% reduction in Scope 1 and Scope 2 emissions by 2030, **in line with the Paris Agreement**. The greatest challenge remains in reducing emissions originating from the supply chain (Scope 3), which represents the vast majority of the emissions integrated within the final products. The existing technological and economic resources are not sufficient to accomplish the comprehensive transformation needed in industrial manufacturing.

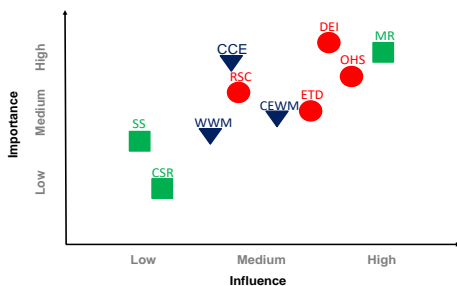
Circular Economy and Waste Management (CEWM) Importance: Medium Influence: Medium

Cenergy Holdings' subsidiaries actively promote the circular economy through the **utilization of recycled materials and the provision of recyclable products and services**, with a strong focus on reducing waste production. The amount of waste recovered and recycled in both divisions increased further in 2022. The Company has implemented the necessary safety precautions and has obtained certification in accordance with the international ISO standard 14001:2015 for the environmental management system it implements.

Water and Wastewater Management (WWM) Importance: Medium Influence: Medium

Water is of critical importance to Cenergy Holdings subsidiaries, therefore the Company implements various strategies to ensure **responsible water usage**. Key measures include reducing water intensity through water conservation technologies, continuous consumption monitoring, evaluating water availability and the

Figure 29: Importance – Influence Matrix



Source: Team Analysis

Figure 30: ESG Key Metrics

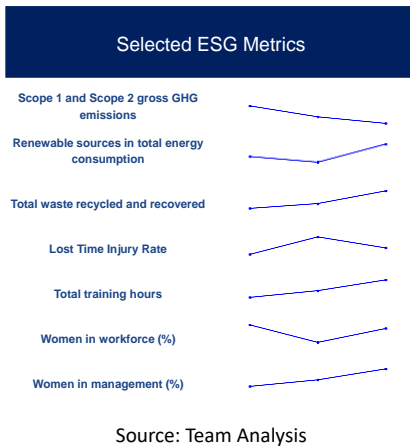
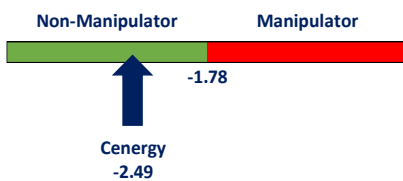


Figure 31: Corporate Governance



Figure 32: Beneish M-Score



Source: Team Analysis

Figure 33: ESG Evaluation Scoring Scale

ESG Evaluation Scoring Scale	
A+	A: Strong Compliance with ESG criteria
A	
A-	
B+	B: Medium Compliance with ESG criteria
B	
B-	
C+	C: Weak Compliance with ESG criteria
C	
C-	
D+	D: Minimum Compliance with ESG criteria
D	
D-	
F	F: No Compliance with ESG criteria

Source: Team Analysis

quality of treated wastewater. It is worth noting that none of the subsidiaries operate in water-stressed or ecologically sensitive areas.

Social

Occupational Health and Safety (OHS) Importance: **High** Influence: **High**

Cenergy Holdings and its affiliated companies invest substantial resources (€3.4B 2022) in enhancing workplace conditions and establishing a safer working environment. In 2022, the initial year of a **five-year health and safety improvement plan**, the Company secured ISO 45001:2018 certification and maintained ongoing oversight. Additionally, a strong focus is placed on the regular fulfillment of third-party health and safety programs (DSS+) to ensure transparent and unbiased evaluations. Notably, the cable segment saw a decrease in its LTR (Lost Time Injury Rate) compared to the previous year, whereas the steel pipes segment witnessed an increase. Another primary metric, the SR (severity rate), experienced a rise in both sectors. Every incident has undergone a comprehensive investigation to determine the underlying causes and implement all necessary safeguards to prevent similar occurrences in the future. **The improvement plan for 2023** includes infrastructure enhancement, safety education, and a strategic focus on specific risk areas.

Employee Training and Development (ETD) Importance: **Medium** Influence: **Medium**

Under the ESG strategy, **Cenergy Holdings' subsidiaries have introduced new educational programs** for their workforce, focusing on business ethics, and combating bribery and corruption. This training had a completion rate of 83%, while the diversity, equity and inclusion training rate was 84% for the managers and 52% for the employees. The goal remains to achieve a 100% completion rate in 2023. **The training hours for employees significantly increased** in both segments in 2022. Especially, in the cables segment the total training hours amounted to 35,769 (16.4 per employee) and in the steel pipes segment amounted to 7,822 (13.6 per employee).

Diversity, Equity, and Inclusion (DEI) Importance: **High** Influence: **High**

Cenergy Holdings is actively engaged in promoting equity, diversity, and inclusion. The policies and procedures of the Company are in full compliance with the relevant national laws. Employees are included in private insurance and retirement programs as part of their benefits package while receiving at least what is mandated by the labor laws of each country. The percentage of women in the workforce and management increased in both segments in 2022, **as companies have implemented various measures to support and promote women presence**. Cenergy Holdings and its subsidiaries have indicated a reporting mechanism with the establishment of an **"Integrity Hotline"** and an online reporting platform. Providing communication channels for employees and business partners to report incidents of misconduct or unethical behavior anonymously, while securing confidentiality and preventing any potential reprisals against the individuals making the report.

Responsible Supply Chain (RSC) Importance: **High** Influence: **Medium**

The Company intends to ensure that its suppliers, contractors, consultants and business associates (business partners) share and promote its fundamental values. Therefore, Cenergy has established a **Supplier's Code of Conduct (SCoC)**, mandating their business partners to adhere to it. This code places significant emphasis on ensuring the welfare and safety of workers, as well as upholding and safeguarding environmental standards. The Company conducts a systematic evaluation of its primary suppliers through the utilization of the **EcoVadis platform** or relevant assessment questionnaires and undertakes a rigorous examination of their compliance with EU Directives. Additionally, certain key suppliers of essential raw materials are subjected to on-site inspections, and in the event of performance issues that cannot be rectified, continuous reviews are carried out. It is noteworthy that the Company conducted its own EcoVadis supplier assessment and achieved a **silver rating** meaning that it has scored in the top 25% of companies assessed.

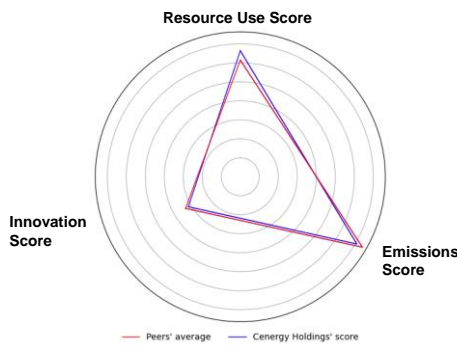
Governance

Cenergy Holdings, as a Company operating under Belgian law and listed on Euronext Brussels, is dedicated to upholding elevated benchmarks of corporate governance. Placing reliance on the principles outlined within the 2020 Belgian Corporate Governance Code.

Management Review (MR) Importance: **High** Influence: **High**

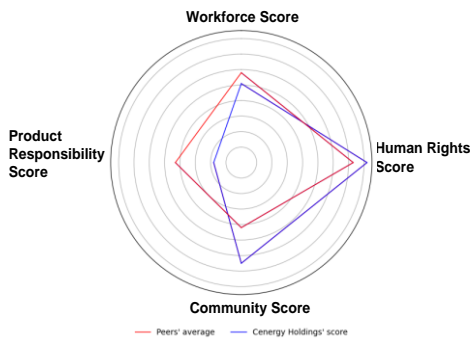
The members of the Board are elected by the General Meeting of the Company's Shareholders, following a proposal by the Board. **The Board consists of 10 members, including 3 independent Directors and 3 female Directors, representing roughly 30% of the overall Board composition.** Cenergy Holdings employs specialized and experienced personnel without any discrimination and endeavors to ensure diversity in terms of nationality, age, religious beliefs, and ethnicity. The current **compensation policy** is based on prevailing market conditions among comparable companies, ensuring competitive market-level remuneration achieved through comparative assessments, considering competencies, experience, and required skills. **Two Board Committees have been established** by the Board: the Audit Committee which provides guidance on accounting, audit and internal control matters and the Nomination and Remuneration Committee primarily advises on matters concerning appointment and remuneration (Figure 31). **The Nomination and Remuneration Committee lacks alignment with Principle 4.19**, as the majority of its members do not comprise independent non-executive board members; among the four appointed Board members, only two are independent.

Figure 34: Environmental Evaluation



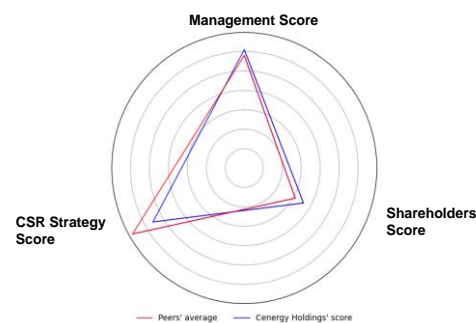
Source: Analysis Team

Figure 35: Social Evaluation



Source: Analysis Team

Figure 36: Governance Evaluation



Source: Team Analysis

Shareholders Structure (SS) Importance: **Medium** Influence: **Low**

Regarding ownership structure and management, Cenergy is principally owned by Viohalco S.A. holding 79.78% of the voting rights. All shares of the Company belong to the same category of movable assets and can be either nominative or bearer shares. The Company's Articles of Association do not restrict the transfer of shares, therefore, all shares are freely transferable, and each share grants one vote to its holder. Maintaining **high transparency levels** with its shareholders and engaging in frequent communication through shareholder gatherings is a significant aspect of the Company's policy (Figure 32).

Corporate Social Responsibility (CSR) Importance: **Low** Influence: **Low**

Cenergy Holdings operates with Social Responsibility by delivering inclusive, sustainable products and creating shared value for stakeholders. The Company contributes to UN Sustainable Development Goals, **having signed 9 out of 17 goals**. To enhance its social responsibility efforts, the Company has established an ESG Working Group to keep the Audit informed about recent developments and each subsidiary has appointed an ESG coordinator to oversee various departments, provide guidance on ESG, and report progress on a semi-annual basis.

ESG Peer Group Comparison

Drawing upon our observations derived from the K-Nearest Neighbors algorithm (Appendix 6.8 K-Nearest Neighbours), we selected three competitors in the cable segment; (Nexans S.A., NKT A/S, Prysmian S.p.A) and three competitors operating in the steel pipe sector; (Welspun Corp LTD, Tenaris S.A., Saudi Steel Pipes Company) (Figure 37).

Regarding Cenergy Holding's ESG score due to the lack of available information, we proceeded with the calculation of our own. Therefore, we evaluated the data provided by Refinitiv for the peer companies with the data presented in the Company's reports. We rated each qualitative data with a score of "1" if it was valid and a score of "0" if it was invalid. For each quantitative factor, we employed a min-max normalization, assigning a score of "0" to the minimum value among the peers and a score of "1" to the maximum value. Cenergy's value was accordingly scaled to a decimal between 0 and 1. Following this, we aggregated all factors' scores and converted them into a percentage. Using this percentage and considering the weights assigned to sub pillars we calculated the final score and converted it into a rating from A+ to F (Figure 33). Concerning the **Environmental** approach, Cenergy is falling behind in the Innovation factor. However, it exhibits a higher score in Resource Use and Emission elements attributed to the energy transition and the emission reduction targets (Figure 34).

Cenergy's **Social** strong presence can be explained by its stringent commitment to welfare and safety and its outperforming in Workforce, Human Rights, and Community. However, indications of improvement can be shown in Product Responsibility (Figure 35).

Regarding the **Governance** perspective, Cenergy's misalignment with three principles of Belgian Law and unsigned UN Sustainable Development Goals have a negative effect on Management and CSR Strategy scores. In terms of the Shareholders' score, Cenergy can be rated as "average" yet there is a prospect for improvement regarding the Company's low public ownership (Figure 36).

Figure 37: Cenergy Holdings vs Competitors ESG Scores

ESG Factors	NEXANS SA	NKT A/S	Prysmian S.p.A.	Cenergy Holdings SA	WELSPUN CORP LTD	TENARIS SA
Resource Use (Weight 7.6%)	A+	A	A	A-	B+	A-
Emissions (Weight 8.5%)	A-	B+	B+	A-	A	A+
Innovation (Weight 18.0%)	A-	C+	C+	B+	D-	C-
Workforce (Weight 7.6%)	A	B+	A	A-	C+	A+
Human Rights (Weight 11.4%)	A+	A+	A+	A	B+	B+
Community (Weight 9.5%)	B-	B-	A	A-	C+	A+
Product Responsibility (Weight 8.9%)	B+	B-	B-	C+	B	A
Management (Weight 19.0%)	A	C	A+	B+	A+	C+
Shareholders (Weight 5.7%)	B	B-	A+	B	B-	B-
CSR Strategy (Weight 3.8%)	A+	B+	A	A-	B+	A+

Source: Team Analysis, Refinitiv

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Appendix 1: Assumptions

Appendix 1.1

Assumptions

<p>DCF Base Case</p> <p>Revenues: For Cables and Steel Pipes separately, the assumptions were based on (1) Volume increase from the enhancement of utilization, (2) % adjustments of raw materials' variance, based on revenue percentage fueled from projects and retailing (3) a decreasing mark-up reflecting the competitive position (Cables, 1.50% 2024, Steel Pipes 1.00%, decreasing 0.10% each year)</p> <p>Cost of Sales: Analyzed in the components as reported in the financial statements. (1) Cost of Sales Recognised as Expense: Bottom-Up approach, starting from the raw materials that are needed for cables and steel pipes separately, total capacity and utilization of each plant, and future prices from LME and Research. (2) For the rest components, inflation or a fixed % of Sales was used.</p> <p>Administrative/Selling expenses: Analyzed in the components as reported in the financial statements. Every component was forecasted separately using inflation or as a percentage of Sales or Cost of Sales</p> <p>CAPEX: Includes the maintenance Capex (40M-45M, each year, management guidance), investment plans (company's press releases) and minor improvements in production (% of Sales, management guidance)</p> <p>D&A: Projected as % (historical) of Tangible and Intangible Assets</p> <p>Terminal Growth Rate, weighted 50% FOMC, 50% ECB</p> <p>Effective Tax Rate 21%, weighted average (company data)</p> <p>Shares Outstanding remaining stable</p> <p>Bull Scenario</p> <p>The assumptions remain constant, apart from the following exceptions:</p> <p>Utilization in Cables increases 0.50% faster each year until full utilization</p> <p>Utilization in Steel Pipes increases +0.50% faster each year until full utilization</p> <p>Mark-Up Cables starts from 2.50%</p> <p>Mark-Up Steel Pipes starts from 1.75%</p> <p>WACC decreases each year by 0.50%</p> <p>Bear Scenario</p> <p>The assumptions remain constant, apart from the following exceptions:</p> <p>Utilization in Cables decreases 0.50% each year</p> <p>Utilization in Steel Pipes decreases 0.50% each year</p> <p>Mark-Up Cables starts from 0.50%</p> <p>Mark-Up Steel Pipes starts from 0.25%</p> <p>WACC increases each year by 0.50%</p> <p>Monte Carlo Assumptions</p> <p>The assumptions remain constant, apart from the following exceptions:</p> <p>All Variables were stretched +/-15%.</p> <p>PERT distribution was used to emphasize the base case which is most likely to occur.</p>

Appendix 2: Financials

Appendix 2.1

Income Statement

	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Turnover	963,797	958,016	908,417	1,054,203	1,426,008	1,602,077	1,660,862	1,868,363	2,083,492	2,150,054	2,216,880
COGS	894,553	859,502	804,924	945,530	1,280,694	1,380,190	1,422,574	1,600,250	1,773,246	1,827,299	1,876,547
Gross Profit	69,244	98,514	103,493	108,673	145,314	221,888	238,288	268,113	310,246	322,754	340,333
Operating Expenses	36,979	36,998	37,281	51,031	44,954	55,556	54,511	58,956	65,575	67,376	68,632
EBITDA	61,028	97,505	96,279	91,216	135,524	204,859	215,923	243,624	281,205	294,005	312,449
Depreciation & Amortization	24,237	27,893	24,980	26,433	28,384	30,615	32,146	34,468	36,534	38,627	40,748
EBIT	36,791	69,612	71,299	64,783	107,140	174,244	183,777	209,157	244,672	255,378	271,701
Net Finance Result	-32,211	-34,625	-31,640	-28,985	-36,462	-71,587	-44,022	-39,157	-37,083	-35,362	-34,311
Share of profit of equity-accounted investees	654	1,600	838	1,855	6,059	1,671	1,688	1,705	1,722	1,739	1,756
Profit Before Tax	5,234	36,587	40,498	37,654	76,737	104,328	141,443	171,704	209,310	221,755	239,147
Income Tax	6,180	-8,315	-10,638	-8,434	-9,536	-21,909	-29,703	-36,058	-43,955	-46,569	-50,221
Profit for the year	11,414	28,272	29,859	29,220	67,200	82,419	111,740	135,646	165,355	175,187	188,926

Appendix 2.2

Balance Sheet

	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Non Current Assets	455,306	496,812	538,921	559,765	620,582	686,558	749,796	800,604	839,466	871,225	907,447
Tangible Assets	405,330	422,066	457,937	476,458	526,156	595,323	658,027	707,900	747,345	785,966	823,743
Intangible Assets	22,284	24,773	29,323	31,255	31,957	33,207	33,770	33,273	31,897	30,250	28,329
Investment Property	5,837	764	764	764	155	155	155	155	155	155	155
Equity Accounted - Investees	11,929	34,583	34,339	36,431	40,959	36,568	36,322	37,617	38,123	33,044	33,187
Other Investments	4,579	5,015	5,657	5,812	6,308	6,308	6,308	6,308	6,308	6,308	6,308
Derivatives	0	0	871	944	6,992	6,992	6,992	6,992	6,992	6,992	6,992
Trade and other Receivables	1,877	1,482	1,303	1,177	1,227	1,189	1,364	1,455	1,685	1,562	1,791
Contract Costs	108	84	222	222	222	208	250	295	353	340	334
Deffered tax Assets	3,362	2,164	2,908	3,233	2,844	2,844	2,844	2,844	2,844	2,844	2,844
Current Assets	603,390	550,814	473,103	646,185	1,078,163	1,111,284	1,148,259	1,362,059	1,433,280	1,566,926	1,601,581
Inventories	221,105	228,495	213,192	284,025	507,545	551,231	547,854	698,414	682,583	819,307	805,286
Trade and other Receivables	199,648	112,577	112,872	132,040	192,769	186,844	214,309	228,559	264,724	245,331	281,443
Contract assets	114,327	118,573	64,875	98,217	195,481	219,617	227,675	256,120	285,611	294,735	303,896
Contract Costs	1,872	512	491	167	14	568	432	449	484	519	551
Income Tax Receivables	95	35	54	1,594	5,575	5,386	6,111	8,872	12,934	14,683	13,130
Derivatives	1,140	213	584	536	9,620	9,620	9,620	9,620	9,620	9,620	9,620
Cash and Cash Equivalents	65,203	90,408	81,035	129,606	167,160	138,019	142,257	160,025	177,325	182,730	187,655
Total Assets	1,058,696	1,047,626	1,012,024	1,205,950	1,698,745	1,797,842	1,898,055	2,162,663	2,272,745	2,438,151	2,509,028
Equity	203,298	231,862	251,762	277,541	341,631	411,686	506,666	615,183	747,467	887,616	1,038,757
Share Capital	117,892	117,892	117,892	117,892	117,892	117,892	117,892	117,892	117,892	117,892	117,892
Share Premium	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600	58,600
Reserves	33,273	34,699	30,427	33,059	37,839	37,839	37,839	37,839	37,839	37,839	37,839
Retained Earnings	-6,784	20,377	44,556	67,956	127,261	197,317	292,297	400,814	533,098	673,247	824,388
Non-Controlling Interests	317	295	287	35	38	38	38	38	38	38	38
Non-Current Liabilities	214,781	234,100	242,973	244,017	193,139	193,908	194,236	195,607	196,943	197,361	197,741
Loans and Borrowings	173,605	177,730	174,625	174,941	127,161	127,161	127,161	127,161	127,161	127,161	127,161
Lease Liabilities	1,187	3,990	3,681	2,080	2,233	2,233	2,233	2,233	2,233	2,233	2,233
Employee Benefits	4,320	5,677	6,406	2,922	2,891	2,891	2,891	2,891	2,891	2,891	2,891
Grants	14,655	14,006	16,487	15,804	15,648	15,648	15,648	15,648	15,648	15,648	15,648
Trade and other payables	4,233	2,170	217	0	0	0	0	0	0	0	0
Deffered tax liabilities	16,781	22,985	31,668	38,382	35,318	35,318	35,318	35,318	35,318	35,318	35,318
Contract Liabilities	0	7,543	9,889	9,889	9,889	10,657	10,985	12,356	13,692	14,110	14,490
Current Liabilities	640,618	581,663	517,289	684,392	1,163,975	1,192,247	1,197,153	1,351,872	1,328,335	1,353,174	1,272,530
Loans and borrowings	363,402	320,827	231,592	215,699	474,749	477,477	495,005	467,912	450,785	376,713	325,305
Lease liabilities	452	1,768	1,752	1,216	1,224	1,224	1,224	1,224	1,224	1,224	1,224
Trade and other payables	209,587	213,794	249,092	422,622	549,283	603,272	584,677	751,644	729,141	822,812	791,533
Provisions	0	0	0	13,410	14,897	14,897	14,897	14,897	14,897	14,897	14,897
Contract Liabilities	62,147	43,528	30,196	26,009	108,780	78,520	81,506	93,773	107,164	111,726	112,809
Current Tax liabilities	86	18	2,081	2,840	4,253	6,068	9,054	11,632	14,335	15,012	15,972
Derivatives	4,944	1,728	2,576	2,596	10,790	10,790	10,790	10,790	10,790	10,790	10,790
Total Liabilities	855,399	815,763	760,262	928,409	1,357,114	1,386,156	1,391,389	1,547,480	1,525,279	1,550,535	1,470,271
Total Equities and Liabilities	1,058,696	1,047,626	1,012,024	1,205,950	1,698,745	1,797,842	1,898,055	2,162,663	2,272,745	2,438,151	2,509,028

	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Profit for the year	6,888	20,177	24,771	22,079	60,420	82,419	111,740	135,646	165,355	175,187	188,926
Depreciation & Amortization	24,237	27,893	24,980	26,433	28,384	30,615	32,146	34,468	36,534	38,627	40,748
Net finance costs	32,211	34,626	31,640	28,985	36,462	71,587	44,022	39,157	37,083	35,362	34,311
Change in Working Capital	-65,712	56,077	99,148	59,669	-179,861	-35,897	-45,248	-12,985	-59,283	-28,777	-58,810
Other	-38,576	-28,875	-21,964	-24,652	-42,663	0	0	0	0	0	0
Net Cash Flow from Operating Activities	-40,952	109,898	158,575	112,514	-97,258	148,724	142,660	196,286	179,689	220,398	205,175
Capex	-50,238	-55,500	-69,968	-44,556	-73,628	-99,922	-95,413	-83,844	-74,602	-75,601	-76,603
Other	351	8,315	-1,898	840	2753	0	0	0	0	0	0
Net Cash Flow from Investing Activities	-49,888	-47,185	-71,865	-43,715	-70,874	-99,922	-95,413	-83,844	-74,602	-75,601	-76,603
Change in Debt	118,112	-2,419	-63,814	8,449	242,261	2,728	17,529	-27,093	-17,127	-74,072	-51,408
Net finance costs	-32,211	-34,626	-31,640	-28,985	-36,462	-71,587	-44,022	-39,157	-37,083	-35,362	-34,311
Dividends	0	0	0	0	0	-12,363	-16,761	-27,129	-33,071	-35,037	-37,785
other	0	0	0	0	0	3,282	245	-1,295	-506	5,079	-143
Net Cash Flow from Financing Activities	85,901	-37,045	-95,454	-20,536	205,799	-77,940	-43,009	-94,675	-87,787	-139,392	-123,647
Total Cash Flow	-4,940	25,668	-8,743	48,263	37,667	-29,141	4,238	17,768	17,300	5,405	4,925
Cash and cash equivalents on 1 January	69,443	65,203	90,408	81,035	129,606	167,160	138,019	142,257	160,025	177,324	182,730
Effect of movement in exchange rates on cash held	700	-463	-630	308	-113	0	0	0	0	0	0
Cash and cash equivalents on 31 December	65,203	90,408	81,035	129,606	167,160	138,019	142,257	160,025	177,324	182,730	187,655

Appendix 3: Business Description



Strengths

- **Signed Contracts for Projects (large backlog)** through competitions.
- **Exclusive access to a nearby port** next to Cenergy's Thisvi plant, resulting in lower freight costs and swift imports.
- **Turnkey Projects and Vertical Production.**
- **Diverse product portfolio** that encompasses a range of dynamic markets.



Weaknesses

- **The regulatory environment** is continually changing due to the European regulatory framework.
- **Fully automated production** in subsidiaries' plants renders Cenergy vulnerable to cyberattacks.
- **Volatility in foreign exchange rates** present a significant concern, given Cenergy's international footprint.



Opportunities

- **The Hydrogen era** is one step closer by developing innovative solutions in the field of hydrogen transportation
- **The technologies of carbon capture and storage (CCS)** are continually evolving.
- **Subsea Projects** that demand specialized technology possessed by only four companies globally.



Threats

- **Delays in executing plans** can occur due to political control or unusual circumstances like severe weather, or challenging social situations.
- **In globalized markets**, such as the ones where Cenergy's both segments operate, the risk of competition continues to increase.

Appendix 4: Industry Overview & Competitive Position

Appendix 4.1

Porter's 5 Forces Analysis

THREAT OF SUBSTITUTE PRODUCTS (2/4)

- **Alternative technologies:** Numerous other technologies exist for generating, distributing, and managing electricity. Notably, solar and wind energy are gaining significant popularity as viable alternative.
- **However,** the application of electrical equipment is expanded into that domain as well.

THREAT OF NEW ENTRANTS (1/4)

- **Technological know-how and Expertise:** products are highly complex and contain a multitude of raw materials.
- **Multiple certifications:** including safety, quality standards, and compliance with regulatory norms.
- **High entrance costs:** Significant investments in R&D, technology as well as in equipment and operating assets.
- **Mature Market:** well-established companies with a significant market share that maintain their value.

RIVALRY AMONG COMPETITORS (4/4)

- **Imbalance between demand and supply:** The high demand and the limited supply significantly impact the level of competition among companies.
- **Global Competitiveness:** Asian competitors' presence in EU project tenders is steadily increasing. This competition poses a long-term risk expected to escalate due to the globalized market.
- **Continuous Innovation:** It creates an intense rivalry and leads to sustainable competitive advantage.

BARGAINING POWER OF BUYERS (1/4)

- **Oligopoly:** The customers have limited power to influence prices, specifications, and the conditions of their contracts.
- **Switching costs:** There are not many alternative suppliers available so the cost of switching is high.
- **Inelastic demand:** Buyer's demand for a product does not change as much as the change in price.

BARGAINING POWER OF SUPPLIERS (1.5/4)

- **Unavailability of suppliers:** Disruptions in the supply of energy, and raw materials may threaten the companies' ability to diversify their supplier base.
- **Price Setting:** The pricing of the products is determined by factoring in the cost of raw materials alongside an additional premium.
- **Differentiated Products:** The companies' products are sourced from a variety of raw materials acquired from different suppliers.

Appendix 4.2

Competition Overview

Peers in Cables



Prysmian S.p.A, Italy-founded in 1879, produces and offers cables, systems and related accessories for the energy and telecommunications industries internationally, along with its subsidiaries. Nowadays, its annual sales are approximately €16,067M.

Nexans SA is France-based and incorporated in 1994, engaging in the cable industry. The company provides copper and fiber-optic cables as well as cabling systems to the energy infrastructure, telecom and data. Nowadays, its annual turnover is around €8,369M.



NKT A/S, founded in 1891 in Denmark develops, manufactures, and distributes cables, accessories, and turnkey solutions worldwide. Currently, its annual earnings are approximately €2,079M.

NINGBO ORIENT WIRES AND CABLES CO LTD is headquartered in China and has been providing land and subsea cable solutions both domestically and internationally since 1998. At the moment, the company's yearly turnover is CNY 7,008.9M.



Riyadh Cables Group was incorporated in 1984, manufacturing and supplying various types of wires and cables to the power transmission and communication sectors in the Kingdom of Saudi Arabia, its headquarters. Its annual turnover is SAR 6,852.3M.

LS Corporation was founded in 1936 and is based in Seoul, South Korea; together with its subsidiaries operates in electric power, energy businesses and materials including power and telecommunication cables. The company's present annual earnings are about KRW 17,491B.



Peers in Steel Pipes



Saudi Steel Pipes Company operates since 1980 through Steel Pipe and Process Equipment segments. The company is headquartered in Saudi Arabia and has yearly sales of SAR 747,600M.

Welspun Corp Limited is engaged in the manufacture of steel pipes and coatings, selling in India; its headquarters, the United States, Europe and Saudi Arabia since 1995. Presently, the company reports an annualized turnover of INR 65,051M.



Tenaris S.A. is a holding company, producing and distributing seamless and welded steel tubular products along with related services for industrial applications since its foundation in 2001, Luxembourg. Nowadays, its annual earnings are around \$11,763M.

Jindal Saw was founded in New Delhi, India and together with its subsidiaries operates through Iron and Steel Products since 1984. Currently, the company has announced an annual turnover of INR 132,984M.



Appendix 4.3

Competition Ratios Analysis

	Cenergy Holdings		Nexans S.A.		NKT A/S		Prysmian S.p.A		SAUDI STEEL PIPES Company		WELSPUN CORP LTD		Tenaris S.A.	
	2021A	2022A	2021A	2022A	2021A	2022A	2021A	2022A	2021A	2022A	2021A	2022A	2021A	2022A
Profitability Ratios (%)														
Gross Profit Margin (%)	10.31%	10.19%	10.60%	11.90%	33.60%	32.20%	31.90%	33.90%	7.30%	14.30%	28.30%	22.50%	29.50%	39.90%
EBITDA margin (%)	8.65%	9.50%	6.50%	7.10%	6.50%	8.30%	7.30%	7.80%	10.70%	15.00%	10.90%	7.8%	21.20%	31.30%
Operating margin (%)	6.15%	7.51%	4.60%	4.70%	1.30%	3.30%	4.60%	5.30%	-1.40%	9.30%	9.40%	3.90%	10.80%	24.90%
Net Profit Margin (%)	2.77%	4.71%	2.20%	3.00%	0.70%	2.70%	2.40%	3.20%	-4.80%	7.30%	11.70%	6.80%	16.20%	21.70%
Return on Assets (%)	2.42%	3.96%	4.15%	3.05%	0.51%	2.07%	2.83%	4.11%	-1.73%	5.46%	10.72%	5.27%	7.48%	15.93%
Return on Equity (%)	10.53%	19.67%	15.87%	12.39%	1.06%	4.78%	11.91%	15.51%	-3.64%	10.50%	10.30%	4.50%	9.47%	19.74%
Liquidity Ratios (x)														
Current ratio (x)	0.94	0.93	1.22	1.07	1.06	1.03	1.14	1.21	0.95	1.38	1.97	1.49	3,19	3.04
Quick ratio (x)	0.53	0.49	0.77	0.69	0.79	0.78	0.77	0.81	0.63	0.6	1.41	1.1	1.48	1,61
Cash ratio (x)	0.19	0.14	13.32	19.05	0.19	0.19	0.30	0.23	0.27	0.24	0.62	0.04	0.07	0.15
Capital Structure Ratio (x)														
Debt to Equity (x)	1.42	1.77	0.72	0.8	0.18	0.17	1.28	0.86	0.47	0,42	0.25	0,46	0.04	0.06
Leverage Ratio (x)														
Net Debt to EBITDA	2.9	3.23	0.27	0.21	-0.52	0.08	2.03	1.31	4.49	1.27	0.53	0.97	0.25	0.11
Coverage Ratio														
Interest Coverage Ratio (x)	2.21	2.9	10.16	10.88	2.44	10.55	9.35	17.07	-1.50	6.86	16.59	8.02	53.49	69.91

Appendix 5: Financial Analysis

Appendix 5.1

Ratios Analysis

	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Profitability Ratios (%)											
Net Profit Margin	1.18%	2.95%	3.29%	2.77%	4.71%	5.14%	6.73%	7.26%	7.94%	8.15%	8.52%
Gross Margin	7.18%	10.28%	11.39%	10.31%	10.19%	13.85%	14.35%	14.35%	14.89%	15.01%	15.35%
EBITDA Margin	6.33%	10.18%	10.60%	8.65%	9.50%	12.79%	13.00%	13.04%	13.50%	13.67%	14.09%
ROA (Return on Assets)	1.08%	2.70%	2.95%	2.42%	3.96%	4.58%	5.89%	6.27%	7.28%	7.19%	7.53%
ROE (Return on Equity)	5.61%	12.19%	11.86%	10.53%	19.67%	20.02%	22.05%	22.05%	22.12%	19.74%	18.19%
Liquidity ratios (x)											
Current Ratio	0.94	0.95	0.91	0.94	0.93	0.93	0.96	1.01	1.08	1.16	1.26
Quick Ratio	0.60	0.55	0.50	0.53	0.49	0.47	0.50	0.49	0.57	0.55	0.63
Cash Ratio	0.10	0.16	0.16	0.19	0.14	0.12	0.12	0.12	0.13	0.14	0.15
Receivables Turnover	5.63	6.07	7.96	8.52	8.72	8.39	8.23	8.38	8.39	8.38	8.36
Inventory Turnover	4.39	3.82	3.64	3.80	3.24	2.61	2.59	2.57	2.57	2.43	2.31
Payables Turnover	4.40	4.00	3.46	2.81	2.64	2.40	2.40	2.40	2.40	2.35	2.32
Cash Conversion cycle	64.90	64.33	40.50	9.11	16.18	31.12	32.96	33.26	33.21	38.57	44.64
Solvency Ratios (x)											
Total Liabilities to Total Equity (Book Values)	4.21	3.52	3.02	3.35	3.97	3.37	2.75	2.52	2.04	1.75	1.42
Debt to Equity (Book Values)	2.65	2.15	1.62	1.41	1.76	1.47	1.23	0.97	0.77	0.57	0.44
Interest Coverage	1.11	2.01	2.23	2.21	2.90	2.41	4.12	5.26	6.49	7.09	7.77

Appendix 5.2

Dupont Analysis

To assess Cenergy's effectiveness in utilizing its shareholders' equity, we performed a Dupont Analysis. This involved dissecting the Return on Equity (ROE) into its fundamental components, a methodology initially devised by the management of Dupont Corporation.

Dupont Analysis	Historical					Projected						
	In € Thousands	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Tax Burden (%)	218.07	77.27	73.73	77.60	87.57	79.00	79.00	79.00	79.00	79.00	79.00	79.00
Interest Burden (%)	14.23	52.56	56.80	58.12	71.62	59.87	76.96	82.09	85.55	86.83	88.02	
Operating Margin (%)	3.82	7.27	7.85	6.15	7.51	10.88	11.07	11.19	11.74	11.88	12.26	
Net Profit Margin (%)	1.18	2.95	3.29	2.77	4.71	5.14	6.73	7.26	7.94	8.15	8.52	
Asset Turnover (x)	0.91	0.91	0.90	0.87	0.84	0.89	0.88	0.86	0.92	0.88	0.88	
Equity Multiplier (x)	5.22	4.52	4.02	4.35	4.97	4.37	3.75	3.52	3.04	2.75	2.42	
ROE (%)	6%	12%	12%	11%	20%	20%	22%	22%	22%	20%	18%	

Appendix 5.3

Beneish M-Score Analysis

The Beneish M-Score analysis, developed by Dr. Messod Beneish in 1999, is a quantitative model employing financial ratios and eight variables to identify instances of financial fraud, particularly in relation to earnings manipulation. Essentially, the formula suggests that a combination of declining gross margins, increasing operating expenses, higher leverage, and substantial sales growth results in an M-Score exceeding -1.78, signifying a likelihood of earnings manipulation. Conversely, an M-Score below -1.78 suggests the absence of such manipulation. In the case of Cenergy, the M-Score remains consistently below -1.78 throughout the examined period (except for 2022), indicating a low probability of earnings manipulation.

Beneish M-Score Analysis	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Output	1.13	0.57	1.06	1.01	1.08	0.86	1.11	0.95	1.04	0.90	1.11
Day Sales in Receivables Index (DSRI)	1.08	0.70	0.90	1.11	1.01	0.74	0.97	1.00	0.96	0.99	0.98
Gross Margin Index (GMI)	1.00	0.97	0.99	1.01	1.01	1.01	1.00	1.01	1.00	1.01	1.00
Asset Quality Index (AQI)	1.27	0.99	0.95	1.16	1.35	1.12	1.04	1.12	1.12	1.03	1.03
Sales Growth Index (SGI)	1.02	0.94	1.27	0.98	1.03	0.90	1.05	1.00	1.00	0.99	0.99
Depreciation Index (DEPI)	0.79	1.01	1.06	1.18	0.65	1.10	0.95	0.96	1.00	1.00	0.99
Selling, General, & Admin. Expenses Index (SGAI)	1.01	0.95	0.84	0.80	1.09	0.95	0.97	0.84	0.92	0.81	0.87
Leverage Index (LVGI)	0.05	-0.08	-0.13	-0.07	0.10	-0.05	-0.03	-0.04	-0.03	-0.04	-0.02
Total Accruals to Total Assets (TATA)	-1.81	-3.41	-3.05	-2.56	-1.60	-2.86	-2.48	-2.56	-2.45	-2.66	-2.43
Beneish M-Score											

The formula for the 8 variable model is: $M-Score = -4.84 + 0.920*DSRI + 0.528*GMI + 0.404*AQI + 0.892*SGI + 0.115*DEPI - 0.172*SGAI + 4.679*TATA - 0.327*LVGI$

Appendix 5.4

Altman Z-Score Analysis

The Altman Z-Score analysis, devised by Edward Altman in 1968, serves to assess a company's financial well-being and the likelihood of facing bankruptcy. A Z-Score below 1.81 suggests a high probability of the firm going bankrupt within the next two years, while a Z-Score of 2.99 or higher indicates a significant distance from insolvency and bankruptcy. Cenergy appears to fall within the distress range, scoring below 1.81, over the last 5 historical years (FY20218-2022). Projections for the upcoming years (FY2023-2028) indicate a presence in the "Grey" range, showing an upward trend toward the "Safe" zone. This suggests that the company lowers the probability to face bankruptcy.

Beneish M-Score Analysis		Historical					Projected					
		2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
X1	Working Capital to Total Assets	-0.04	-0.03	-0.04	-0.03	-0.05	-0.05	-0.03	0.00	0.05	0.09	0.13
X2	Retained Earnings to Total Assets	-0.01	0.02	0.04	0.06	0.07	0.11	0.15	0.19	0.23	0.28	0.33
X3	EBIT to Total Assets	0.03	0.07	0.07	0.05	0.06	0.10	0.10	0.10	0.11	0.10	0.11
X4	MV of Equity to Total Liabilities	0.22	0.24	0.22	0.39	0.35	0.58	0.75	0.66	0.63	0.58	0.57
X5	Revenue to Total Assets	0.91	0.91	0.90	0.87	0.84	0.89	0.88	0.86	0.92	0.88	0.88
X6	BV of Equity to Total Liabilities	0.24	0.28	0.33	0.30	0.25	0.30	0.36	0.40	0.49	0.57	0.71
Altman Z-Score		1.11	1.27	1.27	1.33	1.30	1.66	1.83	1.84	2.03	2.07	2.20

The formula used in Z-Score is: $Z-Score = 1.2*X1 + 1.4*X2 + 3.3*X3 + 0.6*X4 + 1.0*X5$

Appendix 5.5

Piotroski F-Score Analysis

The Piotroski F-Score, created by Joseph D. Piotroski, an accounting professor at the University of Chicago in 2000, is a fundamental analysis tool that aims to guide potential stock buy and sell decisions. It relies on nine key financial ratios categorized into profitability, operating efficiency, and leverage/liquidity/source of funds. The analysis involves examining the year-over-year improvement of these ratios. If a ratio demonstrates improvement, it is assigned an F-Score of 1; otherwise, it receives a score of 0. Consequently, a higher F-Score indicates stronger fundamentals, serving as a signal to consider buying the stock.

Piotroski F-Score	Historical					Projected					
	2018A	2019A	2020A	2021A	2022A	2023E	2024F	2025F	2026F	2027F	2028F
Profitability											
ROA	1	1	1	1	1	1	1	1	1	1	1
CFO	0	1	1	1	0	1	1	1	1	1	1
ΔROA	1	1	1	1	1	0	1	1	1	1	1
ACCRRUAL	0	1	1	1	0	1	1	1	1	1	1
Leverage, Liquidity, Source of Funds											
ΔLEVER	0	1	0	1	1	1	1	1	1	1	1
ΔLIQUID	1	1	0	1	0	1	1	1	1	1	1
EQ_OFFER	1	1	1	1	1	1	1	1	1	1	1
Operating Efficiency											
ΔMARGIN	0	1	1	0	0	1	1	1	1	1	1
ΔTURN	1	0	0	1	1	0	0	1	0	0	0
Total Score	5	8	6	8	5	7	8	9	8	8	8

Appendix 6: Valuation

Appendix 6.1

Weighted Average Cost of Capital (WACC)

WACC	WACC						
	Today	2024F	2025F	2026F	2027F	2028F	Perpetuity
Risk Free Rate	2.36%	1.63%	1.05%	0.82%	1.10%	1.37%	1.19%
Beta	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Equity Risk Premium	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%
Cost of Equity	9.27%	8.54%	7.96%	7.73%	8.01%	8.28%	8.10%
Effective Interest Rate	5.74%	5.01%	4.42%	4.20%	4.47%	4.75%	4.75%
Effective Tax Rate	21%	21%	21%	21%	21%	21%	21%
Cost of Debt (after tax)	4.53%	3.95%	3.49%	3.31%	3.53%	3.75%	3.75%
Weight of Equity	70.11%	69.51%	70.44%	71.04%	73.76%	75.78%	72.11%
Weight of Debt	29.89%	30.49%	29.56%	28.96%	26.24%	24.22%	27.89%
WACC	7.86%	7.14%	6.64%	6.45%	6.83%	7.18%	6.89%

Appendix 6.2

Discounted Cash Flow Model

Discounted Cash Flow Model					
in € ('000s)	2024F	2025F	2026F	2027F	2028F
EBIT	183,777	209,157	244,672	255,378	271,701
Less: Taxes	29,703	36,058	43,955	46,569	50,221
Plus: D&A	32,146	34,468	36,534	38,627	40,748
Less: CapEx	95,413	83,844	74,602	75,601	76,603
Less: Changes in WC	45,248	12,985	59,283	28,777	58,810
Unlevered FCFF	45,559	110,737	103,365	143,059	126,815
DCF Values	42,241	96,463	85,239	111,398	91,125
Cumulative DCF	42,241	138,704	223,943	335,341	426,466

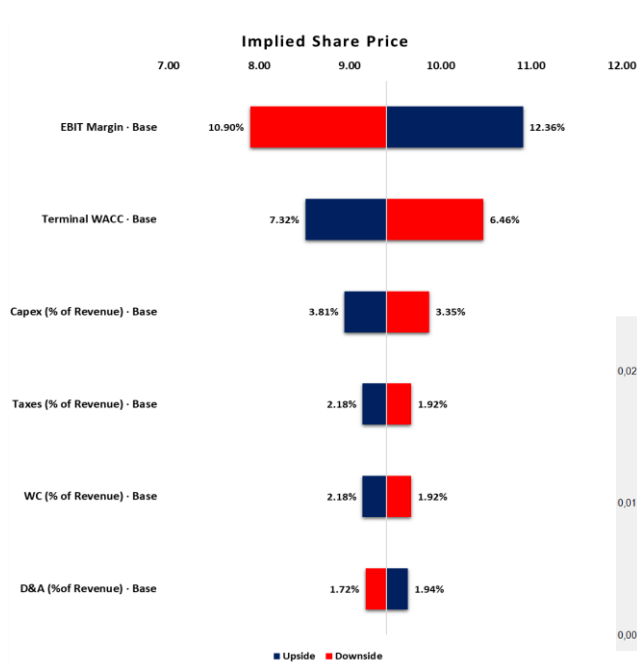
Sensitivity Analysis – Perpetuity Growth

Long Term Growth	WACC						
	5.09%	5.69%	6.29%	6.89%	7.49%	8.09%	8.69%
1.07%	12.84	10.83	9.28	8.06	7.08	6.27	5.59
1.27%	13.56	11.35	9.68	8.38	7.33	6.47	5.76
1.47%	14.35	11.92	10.11	8.71	7.60	6.69	5.94
1.67%	15.23	12.55	10.58	9.07	7.88	6.92	6.13
1.87%	16.22	13.25	11.09	9.46	8.19	7.17	6.33
2.07%	17.35	14.02	11.65	9.88	8.52	7.43	6.54
2.27%	18.63	14.88	12.27	10.34	8.87	7.71	6.77

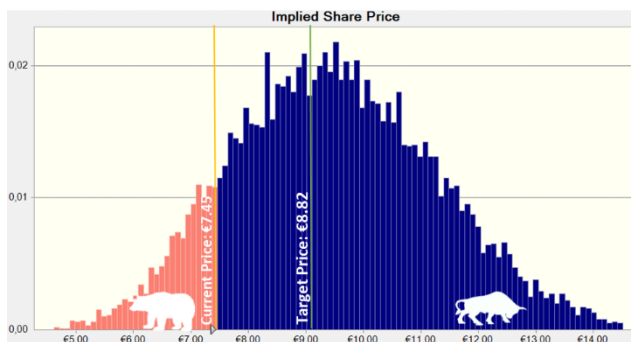
DCF Valuation Results - in € ('000s)	
Final Year FCF	126,815
Terminal Value	2,469,983
PV of Terminal Value	1,770,144
Enterprise Value	2,195,192
Less: Net Debt (Cash)	-470,076
Equity Value	1,725,117
Shares Outstanding	190,163
Implied Share Price	9.07 €

Appendix 6.3

Monte Carlo Simulation



Variable	Minimum	Base	Maximum	Distribution
Revenue CAGR	5.78%	6.80%	7.82%	PERT
EBIT Margin	9.89%	11.63%	13.37%	PERT
Taxes (% of Revenue)	1.74%	2.05%	2.36%	PERT
D&A (% of Revenue)	1.56%	1.83%	2.10%	PERT
Capex (% of Revenue)	3.04%	3.58%	4.12%	PERT
WC (% of Revenue)	1.74%	2.05%	2.36%	PERT
Debt (% of Revenue)	24.10%	28.35%	32.60%	PERT
Cash & Cash Equivalents (% of Revenue)	7.24%	8.52%	9.80%	PERT
Terminal Growth Rate	1.42%	1.67%	1.92%	PERT
Terminal WACC	5.86%	6.89%	7.92%	PERT



The **PERT Distribution** was selected in order to emphasize the base case, which is the most likely to occur.

Simulation Statistics	
Trials	10,000
Mean	9.51
Median	9.45
Standard Deviation	1.78
Variance	3.18
Skewness	0.22
Kurtosis	2.84

Appendix 6.4

Comparable Companies Analysis

	EV/Revenue X		EV/EBITDA X		P/E		KNN - Weights
	2023E	2024F	2023E	2024F	2023E	2024F	
Cables							
Nexans SA	0.54	0.54	6.29	6.26	14.2	13.77	27.8%
NKT A/S	1.08	0.94	10.85	8.86	32.46	24.86	22.1%
Prysmian S.p.A	0.88	0.87	8.63	8.78	14.74	15.35	15.2%
Riyadh Cables Group	2.01	1.93	20.68	19.03	30.09	25.9	12.8%
LS Corporation	0.41	0.39	7.47	7.02	7.43	6.07	12.5%
NINGBO ORIENT WIRES AND CABLES CO LTD	3.49	2.67	17.65	12.71	23.04	16.04	9.5%
							100%
Steel Pipes							
SAUDI STEEL PIPES Company	2.23	2.12	11.02	10.93	14.36	16.03	54.0%
WELSPUN CORP LTD	1.47	0.96	29.69	9.67	25.41	15.57	24.7%
Tenaris S.A.	1.14	1.26	3.49	4.56	5.13	6.86	11.6%
Jindal Saw	1.21	1.05	12.75	7.71	7.59	12.72	9.7%
							100%
Target Company							
Cenergy Holdings S.A.	1.2	1.3	9.2	10.0	17.1	15.0	
Weights (Revenue Based)	64.61%	64.24%	64.61%	64.24%	64.61%	64.24%	
Weights (Revenue based)	35.39%	35.76%	35.39%	35.76%	35.39%	35.76%	
Quartile 25%	0.83	0.71	8.25	6.99	11.73	12.87	
Median	1.11	1.02	10.50	8.80	16.09	15.36	
Weighted KNN	1.39	1.25	12.21	9.56	18.58	16.29	
Quartile 75%	1.74	1.77	16.32	11.74	24.36	21.58	
Weightings of Multiples	20%		40%		40%		
Weighted Implied							8.43

Weights	
Methodology	
KNN	50%
Median	50%
Total	100%
Years	
2023	50%
2024	50%
Total	100%

Weights of Multiples

The EV/Revenue was weighted less than EV/EBITDA and P/E. In the industrial sector, especially when the raw materials have a great impact on Cost of Sales, the prices are sensitive to the variations of raw materials, impacting finally the revenues.

Appendix 6.5

Federal Funds Rate Futures

Risk-Free Rate	2024F	2025F	2026F	2027F	2028F
FFRF Average	95.53	95.42	96.75	97.13	97.08
Implied Interest Rate	4.47%	3.75%	3.16%	2.94%	3.21%
BPS Change	-73.00	-58.50	-22.50	27.50	27.50
BPS converted to %	-0.73%	-0.59%	-0.22%	0.27%	0.28%
Risk-Free Rate	1.63%	1.05%	0.82%	1.10%	1.37%

Appendix 6.6

Bottom-Up Beta

Bottom-Up Beta	
Business Sector	Industrials
Sample Size	24
Cables Median levered Beta	0.96
Cables Median Unlevered Beta	0.613
Cables Median Cash/Firm Value	12.05%
Cables Pure Play Beta	0.72
Steel Pipes Median Levered Beta	1.18
Steel Pipes Median Unlevered Beta	0.61
Steel Pipes Median Cash/Firm Value	11.66%
Steel Pipes Pure Play Beta	0.75
CENERGY's Leverage (market value)	0.43
Beta of CENERGY's operations	1.04
Cenergy's Cash & Equivalents (EUR)	167,160.00
Cenergy's Beta	1.04

Appendix 6.7

Corporate and Valuation Weighting Approaches

We grounded the valuation weighting of our analysis (DCF, CCA) on the Ph.D. thesis of Nicholas Georgiadis. According to this theory, there is a method that uses most of the factors that impact value or influencing the criteria used to choose a valuation approach, in order to end up with the appropriate weighting. To determine the hierarchy of the weighting of valuation models, you have to prioritise factors that affect the value. These factors are rated. There are three categories of factors namely, Fundamental (for valuing purposes, established company etc), primary (later stage company, large size company) and secondary (Developed Economy, strong cash position) that are rated. For each factor, the analyst has to select one of the available possible options, each accompanied by scores. Each factor assigns a score for present values, asset values, multiples, and option pricing. In our case, by summing up the scores of the present values for DCF and multiples for CCA, we arrive at a final result. Upon this, we weigh the final percentage of each valuation method.

FUNDAMENTAL FACTOR	POINTS	RATING
	100	Strong
	50	Medium
	20	Weak
	0	Zero
PRIMARY FACTOR	POINTS	RATING
	40	Strong
	20	Medium
	8	Weak
	0	Zero
SECONDARY FACTOR	POINTS	RATING
	20	Strong
	10	Medium
	4	Weak
	0	Zero

	Score	Weights
DCF	1,244	59.35%
CCA	852	40.65%
Total	2,096	100.00%

Appendix 6.8

KNN - K-Nearest Neighbors

K-Nearest Neighbors algorithm

To identify Cenergy's closest competitors, we applied the K-nearest Neighbors, a machine learning algorithm, based on the data provided by Refinitiv or presented in companies' own reports. Our sample included seven peers in the cable segment offering products similar to Cenergy and four competitors operating in the steel pipe sector. The evaluation focused on crucial performance metrics including gross margin, asset turnover, current ratio, debt/equity ratio, and comparability ratio. Regarding comparability ratio we utilized a Python code to assess the alignment between Cenergy's operations and products with those of its peers. The comparability ratio was then converted into a percentage, providing a comprehensive measure of similarity.

Cables

		Parameters					K-nearest Neighbors Results		
Company Name	Ticket	Gross Margin	Asset Turnover	Current Ratio	Comparability	Debt to Equity	Squared Euclidian	Distance Rank	Distance - Based Weights
Hellenic Cables		11.10%	0.87	0.89	100%	0.40	0		
Prysmian S.p.A	PRY.MI	33.90%	1.30	1.21	72.00%	0.86	13856.6	3	15.24%
Nexans SA	NEXS.PA	11.90%	1.40	1.07	60.00%	0.80	7583.4	1	27.84%
NKT A/S	NKT.CO	32.20%	0.78	1.03	68.00%	0.17	9563.6	2	22.08%
Riyadh Cables Group	4142.SE	9.40%	1.60	1.40	35.00%	0.85	16508.6	4	12.79%
LS Corporation	006260.KS	10.80%	1.17	1.35	30.00%	1.67	16846.4	5	12.53%
NINGBO ORIENT WIRES AND CABLES CO LTD	603606.SS	22.30%	0.80	2.80	22.00%	0.38	22165.1	6	9.53%

Steel Pipes

		Parameters					K-nearest Neighbors Results		
Company Name	Ticket	Gross Margin	Asset Turnover	Current Ratio	Comparability	Debt to Equity	Squared Euclidian	Distance Rank	Distance - Based Weights
Corinth Pipeworks		6.10%	0.74	0.95	100%	0.75	0		
Jindal Saw	JIND.NS	34.60%	0.80	1.03	35.00%	0.82	26518.3	4	9.67%
SAUDI STEEL PIPES Company	1320.SE	14.30%	0.74	1.38	62.00%	0.42	4748.4	1	54.02%
Tenaris S.A.	TENR.MI	39.90%	0.74	3.04	68.00%	0.06	22114.3	3	11.60%
WELSPUN CORP LTD	WGSR.NS	22.50%	0.77	1.49	65.50%	0.46	10381.5	2	24.71%

Appendix 7: Abbreviation

Appendix 7.1

Abbreviation Table

ABBREVIATION	FULL TERM	ABBREVIATION	FULL TERM
P/E	Price to Earnings	IT	Information technology
EPS	Earnings Per Share	ROIC	Return on Investment Capital
CAGR	Compounded Annual Growth Rate	DCF	Discounted Cash flow
EBITDA	Earnings Before Interests, Taxes, Depreciation and Amortization	CCA	Comparable Company Analysis
ROE	Return on Equity	10Y	10-Years
CFO	Cash Flow from Operations	WACC	Weighted Average Cost of Capital
CAPEX	Capital Expenditures	BPS	Basis Points
R&D	Research & Development	GDP	Gross Domestic Product
HV	High-Voltage	3M	3-Months
EBIT	Earnings Before Interests, Taxes	P&L	Profit & Loss Statement
F	Forecasted	FX	Foreign Exchange
E	Estimated	ISO	International Organization of Standardization
A	Announced	DSS+	DuPont Sustainable Solutions
M	Millions	EU	European Union
DPS	Dividends Per Share	SA	Societe Anonyme
GHG	Greenhouse Gas Emissions	A/S	Aktieselskab (Publicly Traded)
CEO	Chief Executive Officer	S.p.A.	Società per azioni (Joint-stock company)
CFO	Chief Financial Officer	CORP LTD	Corporate Limited

Cenergy Holdings <https://cenergyholdings.com/>

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