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HOLD

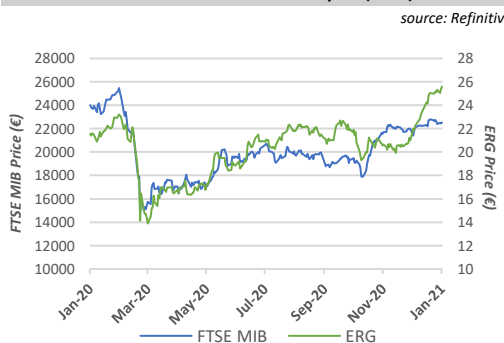
Share Price (as at 18/01/2021)	€ 25.1
Target Price	€ 27.9
Upside/(Downside)	11.1%

Key Data

Market cap (€ mln)	3,781
Shares outstanding	149 mln
Free float	36.50%
Bloomberg ticker	ERG:IM
Thomson-Reuters ticker	ERG.MI
Stock exchange	Borsa Italiana FTSE Italia Mid Cap
Sector	Utilities
Industry	Renewables

Key Metrics	2020E	2021E
Sales (€ mln)	1,011	1,090
EBIT (€ mln)	214	248
Net Income (€ mln)	101	122
Debt (€ mln)	1,942	1,816
ROE	5.8%	7.0%
ROIC	5.0%	5.8%
EPS (€/share)	0.69	0.83
Dividend yield	2.9%	2.9%

Exhibit 1 – Price chart ERG vs FTSE MIB 1 year (2020)



INVESTMENT SUMMARY

We initiate our coverage of ERG with a **HOLD** recommendation and a **€ 27.9 target price** (+11.1% upside over the next 12 months, +14.0% including expected dividends). ERG is the Italian leader in renewable energy with 94 domestic sites and 47 more across Europe (located in France, Germany, Poland, Bulgaria and Romania). Its portfolio includes wind, solar, hydroelectric, and thermoelectric power generation assets. The price derived from our valuation is a result of: (i) a sustainable financial position; (ii) high cash flow conversion; (iii) internalization of key operational stages; (iv) favourable sector's dynamics (i.e., the European Union's focus on facilitating and financing new greener sources of energy); (v) a controlling shareholder (Garrone family) that has guided the company in its transformation from oil to renewables. That said, the utilities sector is typically mature and stable, with limited bargaining power of its actors and non-significant economies of scale. All these factors contributed to flat revenues growth over the last years.

Accounting	Good	No signs of manipulation over the 2015-2019 period (-2.9 average Beneish M-Score).
Valuation	Neutral	Intrinsic valuation, pure-peer multiple valuation, transaction multiples and regressions.
Cash Position	Good	Ample liquidity buffer: improved profitability, FCFF and FCFE expected to increase over the 2020-2025 period.
Debt	Neutral	On the thin ice: conservative financial policy, but it still needs to meet management debt targets.
Risks	Medium vulnerability	Mostly industry-wide risks.
Environmental	A	ISO 14001, sustainable strategies approach.
Social	B	Edoardo Garrone foundation, OHSAS 18001, social initiatives.
Governance	C	Family controlled, partial lack of independence.

A pure play in the renewable revolution: With a market cap of €3.8bn and €1bn in operating revenues, ERG Group is an Independent Power Producer (IPP) which generates electricity from clean, renewable and sustainable sources. Its four business areas include: (i) Wind (€414mln revenues): leader in Italy and with a growing presence in the rest of Europe; (ii) Sun (€71mln revenues): among the top five photovoltaic energy operators in Italy; (iii) Water (€119mln revenues); (iv) Natural Gas (€418mln revenues): generating high-efficiency and low environmental impact thermoelectric power.

A Market Overview: Renewables are today some of the lowest-cost sources of new power generation, especially in the photovoltaic and onshore wind segments with cost reductions of 77% and 20%, respectively, since 2012 according to Goldman Sachs ("Carbonomics: The green engine for economic recovery", June 2020). These favourable trends have attracted new players (i.e., oil companies), which contributed to the increase in the sectors' market share of renewable energy, which is expected to reach 32% of the overall market in Europe in 2030. In Italy, wholesale transactions are carried out on the IPEX ("Italian Power Exchange"), in which the most important spot market is the MGP ("Mercato del Giorno Prima" or "Previous Day Market"). The trades are managed by an intermediary (GME, "Gestore dei Mercati Elettrici" or "Energy Markets Operator"), whose presence reduces the bargaining power of energy sellers and buyers.

Exhibit 2 – Price history and main events

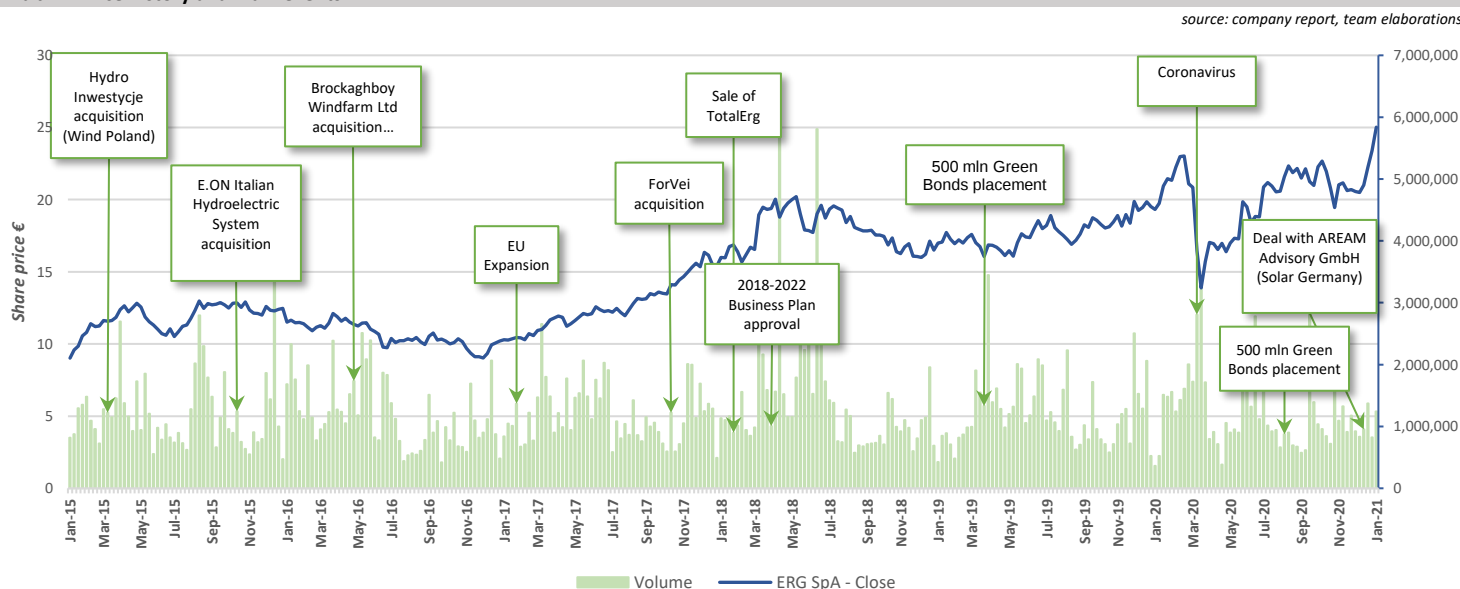
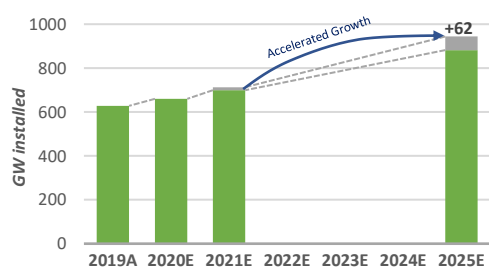


Exhibit 3 – ERG's wind farm in France

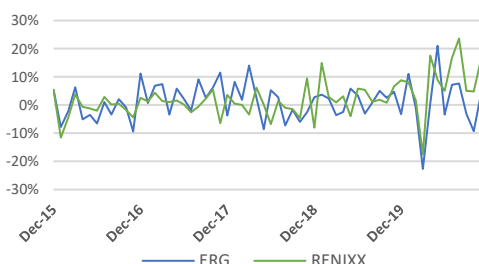
source: company website (www.erg.eu)

**Exhibit 4 – GW installed in Europe (best vs average scenario)**

source: International Energy Agency, team elaborations

**Exhibit 5 – ERG vs. RENIXX 5y returns (2015-2020)**

source: International Energy Agency, team elaborations



The price applied to transactions is a function of the demanded and offered amounts of electricity, and it depends on whether the participant is a seller or a buyer: the former sells at a zoned-price, according to the region in which the energy is produced, while the latter buys at a weighted average of the zoned prices (PUN, "Prezzo Unico Nazionale" or "National Unique Price"). The exchanged amounts, and so the prices, are driven by (i) the seasonality of the demand and the offer; (ii) the stage of the economic cycle. The European energy market is highly exposed to intervention by governments and authorities, which have introduced a system of incentives to help the development of renewables: Feed-in-Tariff, Feed-in-Price, Energy Efficiency Credits.

Looking for growth... To increase its generation portfolio, ERG has based its business strategy on: (i) organic growth and co-development agreements in Europe, (ii) acquisitions in target countries, and (iii) improved management of obsolete technologies. To arrive at the company's targeted 3,600 MW total installed capacity in 2022, the group plans to: (i) grow organically in the wind segment in France, Germany and UK (+350 MW by 2022); (ii) strengthen its Italian competitive position in wind power generation through innovative and flexible technologies (reblading and repowering projects); (iii) improvement of wind and thermo infrastructures, by investing in operating efficiency, flexibility, and reliability of sites. ERG expects to enhance its market position through: (i) considerable know-how in the energy sector; (ii) direct management of facilities and in-site active presence; (iii) internalization of maintenance operations.

...but not just organic. Since its entry in the renewables sector, ERG has carried out a diversification strategy, aiming to exploit synergies among different sources and segments. With over 30 acquisitions since 2004, M&A is still a core element of its growth plans. Indeed, the first step into solar power generation with the acquisition of ForVEI in 2018 (for an enterprise value of €337m) has allowed the company to consolidate its portfolio, with the current plan to double the existing solar installed capacity to 220 MW by 2022.

Lots of cash. ERG's profitability is expected to improve thanks to: (i) its internal Energy Management department, tasked to reduce operating costs and thus boosting margins; (ii) growth in revenues, facilitated by the significant investments in capacity in both the solar and wind segments; (iii) Operation & Maintenance, which will result in an internalization of conduction and maintenance processes. ROE and ROIC will respectively reach values of 8.94% and 8.17% in 2025 (vs. 5.79% ROE and 4.90% ROIC in 2020). ROE will thus be more aligned with peers (currently c.9% on average), while ROIC will be much higher (currently c.4% on average). FCFF is also expected to grow at a CAGR of 12.3% to 2025. This cash generation will allow not only to finance the growth plan but also to return capital to shareholders (dividends are expected to be €0.75 p.a., for a 3% current dividend yield).

...but be careful to keep the wolf from the door: Even with improved profitability, ERG is mindful of its capital structure. Given its reliance on project financing, in 2020, ERG took advantage of market conditions to issue €500 million in Green Bonds which will be used to refinance existing projects recently included in the portfolio and to finance new wind energy projects under development. These transactions will reduce the amount of long-term debt and will allow ERG to meet management's targets (Net Debt/EBITDA below 3x by 2022).

Industry & company risks: The main investment risks are represented by: (i) Regulatory risks, due both to the high volatility of energy prices and possible changes to incentive policies; (ii) National bureaucracy, making it difficult to comply with the 17GlobalGoals and the Integrated National Energy and Climate Plan (INECP) objectives established by the Italian Government; (iii) Natural variability of Renewable Energy Sources (RES), as climate conditions impact the production of energy and hence financial results.

Exhibit 6 – Highlights

source: company report, team elaborations

	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Tot. Capacity (MW)	2,821	2,919	3,077	3,235	3,405	3,590	3,786	3,999	4,228
Revenues (€ mln)	1,064.1	1,045.6	1,044.4	1,011.0	1,090.0	1,130.8	1,174.0	1,221.6	1,274.0
EBITDA (€ mln)	457.6	479.6	495.9	508.2	558.1	591.9	627.5	666.5	709.2
EBITDA Margin	43.0%	45.87%	47.48%	50.26%	51.21%	52.35%	53.45%	54.56%	55.67%
EBIT (€ mln)	206.7	205.5	189.9	213.8	248.0	264.8	282.9	303.3	326.0
EBIT Margin	19.4%	19.65%	18.19%	21.14%	22.75%	23.41%	24.10%	24.82%	25.59%
Net Income (€ mln)	206.8	132.7	32.8	102.08	123.34	133.68	144.91	157.50	171.63
Net Profit Margin	19.4%	12.69%	3.14%	10.10%	11.32%	11.82%	12.34%	12.89%	13.47%
ROE	11.0%	7.26%	1.85%	5.79%	6.96%	7.46%	7.96%	8.45%	8.94%
ROIC	4.9%	4.44%	4.54%	4.90%	5.83%	6.32%	6.83%	7.42%	8.17%
Dividend payout ratio	36%	129.03%	356.21%	111.66%	92.76%	85.54%	78.88%	72.53%	66.53%
DPS	€ 0.50	€1.15	€0.75	€0.75	€0.75	€0.75	€0.75	€0.75	€0.75
EPS	€ 1.39	€0.89	€0.22	€0.69	€0.83	€0.90	€0.97	€1.06	€1.15
Net Debt/Equity	0.91x	1.04x	1.10x	1.10x	1.02x	0.97x	0.91x	0.83x	0.73x
Interest Coverage Ratio	3.17x	3.35x	1.39x	2.71x	2.91x	3.00x	3.09x	3.18x	3.28x

BUSINESS DESCRIPTION

Exhibit 7 - Shareholders Structure (% owned)

source: company report

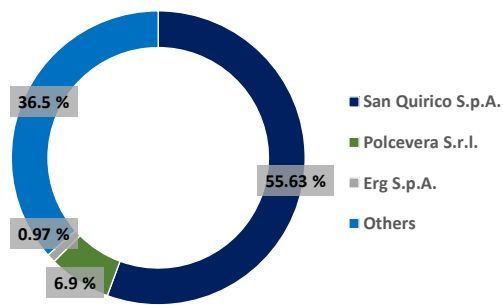


Exhibit 8 - MW installed by source

source: company report

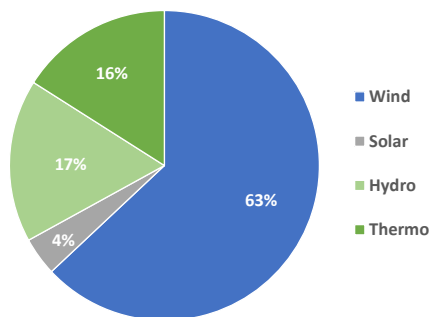


Exhibit 9 - Installed Wind Power by geography (MW)

source: company report

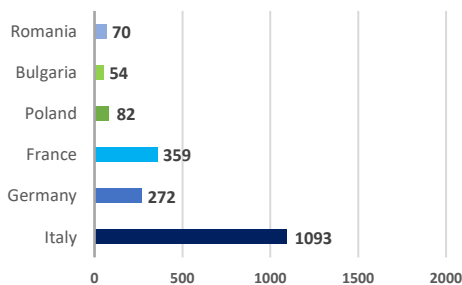


Exhibit 10 - Revenues by business segment (mln €)

source: company report

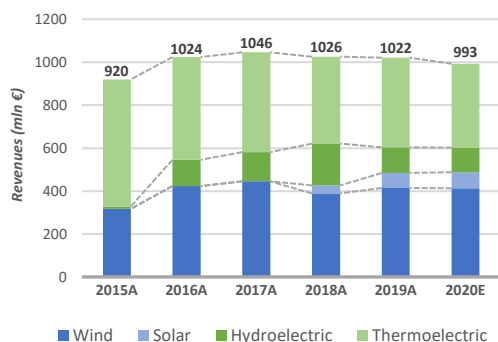


Exhibit 11 - Projects under construction or/and ready to build

source: FactSet, company report

Project	MW	Construction start	Producibility
Evishagaran	47	1Q 2020	3,700 heq
Sandy Knowe	50	4Q 2020	3,100 heq
Craigmore	23	4Q 2019	3,400 heq
Creag Riabach	79	3Q 2020	2,900 heq
Laski	36	4Q 2020	2,500 heq
Limousine I	15	1Q 2021	2,200 heq
Champagne I	22	1Q 2021	2,300 heq
Vaa2 ext.	7	1Q 2021	2,100 heq

With a €3.8 bn market capitalization and more than €1 bn in revenues in 2019, ERG group is an Italy-based independent power producer in the renewable energy sector. Controlled by the Garrone-Mondini families through the financial holding San Quirico S.p.A. (*Exhibit 7*), it has been listed on the Milan Stock Exchange since 1997 and it has been part of the FTSE Italia All-share Index sector "Utilities – Alternative Electricity" since 2016, formally affirming its business transformation.

Transformation Process

Founded by Edoardo Garrone in 1938 (*Appendix 1.2*) as an oil refinery, ERG expanded rapidly by signing an international agreement with British Petroleum and then expanding in the fuel distribution sector. During the 2000s, ERG entered the energy production field mostly through acquisitions, becoming a "multi-energy" company. The strategy was strengthened with the entry into the renewable energy sector with the acquisition in 2006 of EnerTAD S.p.A, a company specialised in wind-based electricity generation. Over the following years, the company continued to divest from the oil sector to reinvest in clean energy production assets, and finally completed the industrial transformation in 2017. Today, with a total of 3,077 MW installed, ERG is the leading wind power operator in Italy and one of the top ten in Europe. Through its ERG Power Generation subsidiary, the company also operates as a photovoltaic, hydroelectric, and thermoelectric energy producer.

Business Segments

As evidenced in *Exhibit 8*, ERG generates electricity using four sources:

1. Onshore wind (63% of installed capacity): As of 2019, ERG had 1,929 MW of installed power (a 6% increase over the previous year) and an electricity output of 4,000 GWh (15% increase with respect to 2018). Wind farms consist of wind-power generators that transform the kinetic energy of wind into mechanical energy, which in turn is used to generate electricity. The performance expected from each farm is strongly influenced by the wind speed profile of the site location (*Appendix 1.1*). Sites are mainly concentrated in Italy (1,093 MW), with a significant competitive position and growing presence in other European countries (*Exhibit 9*).

2. Solar (4% of installed capacity): Current photovoltaic plants (PV) have an installed capacity of 141 MW. Acquisitions in Italy and abroad contributed to the increase in installed MW and in the level of power generation: the 2019 output amounted to approximately 226 GWh and the related load factor (actual output in relation to maximum theoretical output, calculated considering the actual date of entry into operation of each individual wind farm) was 18% (16% in 2018).

3. Hydro (17% of installed capacity): The Terni Hydroelectric Complex (527 MW of capacity), located in central Italy, consists of an integrated portfolio of assets with 19 plants, 7 dams, 3 reservoirs and one pumping station. The power performance in 2019 was affected by the reduced water resources recorded and generated a 27% load factor (versus 38% in 2018).

4. Thermoelectric (16% of installed capacity): Carried out through ERG Power's CCGT "Centrale Nord" plant (480 MW) at the industrial site in Priolo Gargallo in Sicily. This is a high-efficiency, low environmental impact cogeneration plant (HEC), which uses a combined cycle technology fuelled with natural gas, producing both the electricity and the heat used to power the industrial plants in the site (net electricity generation of 2,504 GWh in 2019).

Strategy

Similar to several of its competitors, ERG is looking to expand its activities through different paths while also aiming to be flexible to maximize energy production reducing buffer time and overproduction. The strategy to accomplish these goals can be divided in four parts:

M&A: Following a global trend of consolidation, ERG has declared its intention to acquire around €110 million in assets by 2022, in particular to expand its solar production in Italy and strengthen its presence in Germany and France. We believe the current low cost of financing, the incorporation of know-how and diluting the risk dilution of variability of weather (consistent with the expansion in solar energy, as output from solar panels is more stable and predictable than from wind farms) to favour the M&A strategy.

Production Flexibility: Using a process called "Condition Based Maintenance" (CBM), a system of sensors to remotely monitor all the facilities, ERG is aiming to minimize waste and buffer time. Indeed, ERG has developed the CBM to assess when to stop or slow down production (because energy demand is too low) and to detect any mechanical issue that must be solved to maximize the energy output. CBM also allows for the collection of data that can help along the life of the facilities and boost the technical know-how for maintenance and new projects.

CapEx: ERG is currently focusing its investments along three different lines: repowering, reblading and new plants (*Exhibit 11*). ERG is very active in 'repowering' its turbines since new generators can produce up to 3-4MWh (vs. 1MWh previously) and the new incentive environment permit to obtain new financing. Reblading is also very effective for every type of turbine. Indeed, new blades can better exploit the wind potential, increasing output by an estimated 16%.

PPA: Power Purchase Agreements are long term contracts between an energy producer and a third party - usually a company - for a stable supply of electricity. PPAs are strategic for ERG since they can reduce risks and volatility as prices are predetermined. Currently ERG has just an on-going PPA (with the Italian electricity retailer ACEA) for 1,500 GWh over 2020-2022. However, signing new PPAs is one of ERG's top priorities for the next years.

Energy management: Since electricity is a non-storable asset, ERG implements energy management processes to maximize its profits through modulating production activities and hedging against energy price fluctuations. The diverse tasks are divided into Front Office, Middle Office, and Back Office. Front Office is in turn organized into three subdivisions: Short Term Analysis, Bidding, Trading. Short Term Analysis area elaborates the strategies to support the activities of the other two divisions. Bidding area operates in the energy spot markets and tries to optimize the energy production, in order to maximize the profit from the sale of electricity. Trading area operates on the forward markets and hedges price risk by buying and selling energy and gas. Middle Office is responsible for planning the operations of the company's plants and elaborating medium- and long-term future scenarios, through price and market analysis, which will support the activities of Front Office. Back Office controls the operations carried out by Front Office and ensures the correct execution of the contracts stipulated and the preparation of adequate reporting on the company's activities.

INDUSTRY OVERVIEW AND COMPETITIVE POSITIONING

Exhibit 12 - GWh generated in Europe by source (1990-2018)

source: International Energy Agency, team elaborations

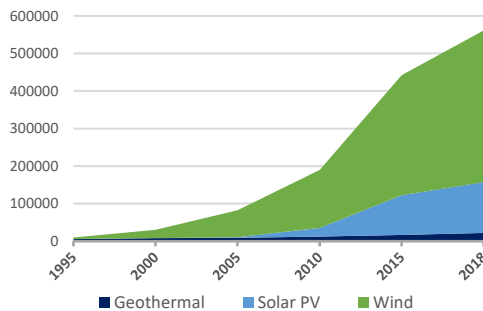


Exhibit 13 - PUN vs. Brent Oil linear regression

source: team elaborations

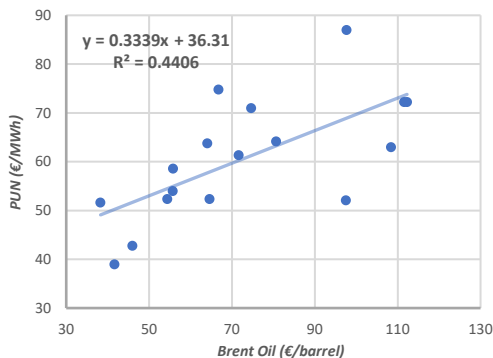


Exhibit 14 - Monthly PUN and zone-based prices (2019)

source: GME, team elaborations

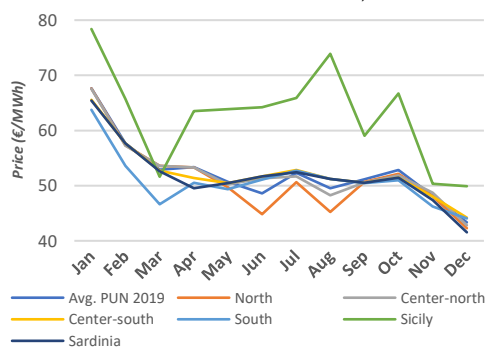


Exhibit 15 - Evolution of MGP

source: GME, team elaborations

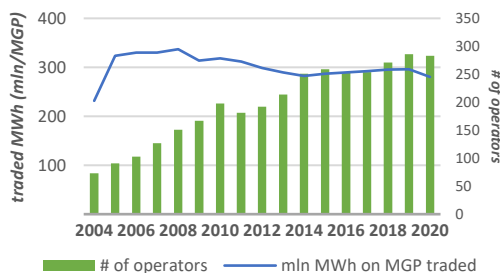
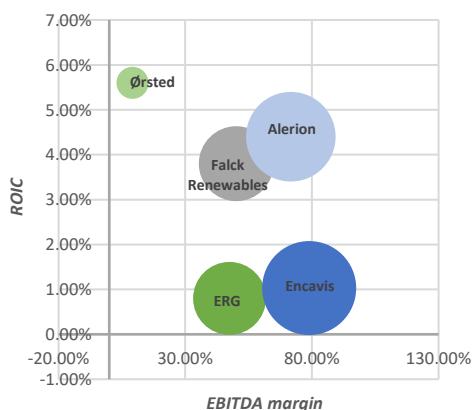


Exhibit 16 - EBITDA margin/ROIC (2019)

source: company report, team elaborations



Sustainability is a central theme in the global political agenda. Driven by low interest rates, investing in sustainable and technological improvements is becoming every day cheaper and more convenient, constantly raising profit forecasts for the segment. In Europe, the share of renewables was about 18.9% at the end of 2018 on a goal of 20% for 2020 as reported in the Renewable Energy Directive (European Commission).

Market Features

Toward Renewables: For the first time in history, in 2020 renewables power generation overtook fossil-fired power generation (source: Ember and Agora Energiewende, "Europe's Power Sector in 2020"). New investments in the sector will further increase renewables capacity in the continent by 27 to 38 GW each year (source: International Energy Agency, "Renewables 2020, Analysis and Forecast to 2025") to an estimated 32% of total produced energy in 2030. The European Council has addressed the 30% of the EU NEXT GEN fund's budget to support this transition. The sector's favourable features are also attracting new players: oil companies are expected to represent 2% of global renewable powers (source: IEA).

Lower-Cost Technology: Renewables are today some of the lowest-cost sources of new power generation (cost of capital is up to 20% for long-term oil projects and down to about 3-5% for renewables) (source: Goldman Sachs, "Carbonomics"). According to IRENA ("Global Renewables Outlook: Energy Transformation 2050"), since 2012 total costs in solar PV, offshore and onshore wind have decreased by 77%, 35% and 20%, respectively, and they are expected to reach their break-even point in 2023, when marginal costs will be covered without the need for incentives. In addition, by 2024 solar is set to double its capacity leading the expansion of RES. In wind energy, investments are not concentrated just in new plants but also in reposing rings (renewing old plants). Repowering and extraordinary maintenance are estimated to be about 17.5% of investments for the sector.

COVID-19, a cloud with a silver lining for RES: While the global consumption of electricity has indeed gone down last year, the demand for renewable energy has not been much impacted due to dedicated withdrawal, guaranteed for electricity generated from renewable sources. However, lockdown measures, social distancing guidelines and delays in constructions due to supply chain disruptions, as well as financing challenges, have all slowed down the growth of renewables in 2020. Green technologies should return to grow earlier and faster with respect to biofuels and "brown" energies, as it happened after the 2008 financial crisis (source: Goldman Sachs). The main reason is the governments' attention to the sector, considering the European Union goals in terms of decarbonization and avoiding CO2 emissions. A faster recovery for RES is also expected from governments' investments to kick-(re)start the national economies. It is estimated that green infrastructures are 1.5x - 3.0x more capital and job-intensive than traditional energy developments per unit of energy produced, representing a significant source of jobs.

An Italian Snapshot

IPEX: In Europe, electricity prices are set via daily competitive auctions organized on time-based and zone-based negotiations. For the Italian market, these transactions are carried out on the Italian Power Exchange (IPEX) under the supervision of GME ("Gestore dei Mercati Energetici" or "Energy Markets Operator"). GME acts as both the single buyer ("Acquirente Unico") from energy power generation companies and the single seller ("Venditore Unico") to energy retailers. IPEX is organized in different markets: MGP ("Mercato del Giorno Prima" or "Previous Day Market"), MPEG ("Mercato dei Prodotti Giornalieri" or "Daily Products Market"), MI ("Mercato Infragiornaliero" or "Intra-day Market") and MSD ("Mercato per il Servizio di Disaccoppiamento" or "Dispatching Services Market"). MGP is characterized by a higher number of transactions and is the "place" where operators exchange hourly blocks of energy for the following day. Market operators present their offers specifying the maximum and minimum price at which they are willing to buy/sell. Transactions start nine days before the delivery date and close the day before the delivery date. Different prices are applied to sellers (the energy power generation companies) according to the area of production: North, North Central, South Central, South, Sicily, and Sardinia (please see Appendix 2.4 for more details). Each zoned-price is set equal to the marginal cost of production for the marginal amount of energy demanded. The weighted average of these zone-based prices is the PUN ("Prezzo Unico Nazionale" or "National Unique Price", charted in Exhibit 14), which is the single price charged to buyers (the energy retailers) (please see Appendix 2.3). Demand and offer suffer from seasonal and intraday cyclicity, affecting the price across different hours, days and months (Appendix 2.5 and 2.6). For Italian energy producers there is still the possibility to refer to GSE ("Gestore dei Servizi Energetici" or "Energy Services Operator") to receive a minimum guaranteed price: this option is however reserved to renewable energy producers as an alternative to the wholesale market.

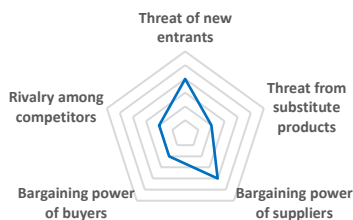
Evolution of Wholesale: As energy demand is related to the economy growth, there is a significant correlation between the total amounts of MWh exchanged on MGP and the Italian GDP (Appendix 2.8 details the findings from 2004 to 2020): the regression analysis highlights that when Italian GDP contracts, the total MWh traded decreases as well, mostly evident in 2009, 2011-2014 and 2020. The amount of transactions also depends on the number of participating operators, which includes both energy retailers and power generation companies: they have steadily increased from 73 in 2004 to 283 in 2020, but actually declined in 2009, 2016 and 2020 (Exhibit 15 and Appendix 2.8).

Influence on PUN: Our regression also confirms a positive correlation between PUN and Brent oil prices. Finally, PUN is also positively correlated to the Italian GDP growth, although PUN typically grows faster (Exhibit 13).

An Incentivized Market: Governments have implemented additional policies to incentivize new investments in the development of renewables: (i) FIT ("Feed-in-Tariff"), based on long-term contracts (15-25 years) where producers receive a predetermined price based on the seller's effective production costs; (ii) FIP ("Feed-In-Price"), where energy is sold on the spot market and RES producers receive a premium, which can change across countries according to different factors (e.g., in Italy and the rest of Europe, it is mainly used a FIP policy with premiums which depend on monthly and hourly electricity prices); (iii) TEE ("Titoli di Efficienza Energetica") / EEC ("Energy Efficiency Credits"), certificates of CO2 emission savings issued by the GME to assess projects with a favourable environmental impact. In recent years, governments have introduced measures to increase the effectiveness of incentives, which are now determined through competitive auctions in most of the countries where ERG operates.

Exhibit 17 - Porter's 5 forces analysis

source: team elaborations



Porter's Five Forces: The renewables market is capital intensive and characterized by a limited number of big suppliers of assets components, which have therefore the power to pressure the energy producing companies. In addition, suppliers which provide advantageous products are privileged and have a stronger bargaining power. The current elevated costs to start new projects create barriers to entry in the sector, restricting the universe of energy producing companies. However, these still have low bargaining power, as the electricity spot markets are close to "perfect competition": prices are determined by auctions between bidders and buyers, where none of them has enough power to influence the final outcome. As such, competition among suppliers is mostly driven by the marginal cost of production: indeed, no electricity differentiation strategies can be applied because of the intrinsic homogeneity of the product (for further information please refer to *Exhibit 17* and *Appendix 2.10*).

Exhibit 18 – SWOT Analysis

source: team elaborations

STRENGTHS	
▪ Reblading	
▪ Repowering	
▪ Wind farm operations and maintenance	
▪ Renewables leading (know-how)	
▪ Environmental reputation	
▪ Exceptional events management	
WEAKNESSES	
▪ Natural sources unpredictability	
▪ Lack of integration	
OPPORTUNITIES	
▪ Energy games power	
▪ Synergies among res	
▪ Solar diversification	
▪ Technology efficiency	
▪ Off-shore wind	
▪ Financing perspectives	
▪ UK expansion	
▪ PPA	
THREATS	
▪ End of incentives	
▪ Price volatility	
▪ Succession issues	

Competitive Positioning

ERG is well positioned in the Italian market. Globally, its plants have a total installed capacity of 3,128 MW and produced 7,959 GWh in 2019, thus broken down: (i) 4,000 GWh from wind, (ii) 226 GWh from solar, (iii) 1,229 GWh from hydro, and (iv) 2,504 GWh from natural gas. In contrast, its biggest domestic competitor Falck Renewables has an installed capacity of 1,133 MW and produces 2,391 GWh of total energy, while Alerion has 491 MW installed capacity distributed over 17 plants that produce 695 GWh. At the European level, Germany's Encavis has a capacity of 2,437 MW and produces 1,730 GWh. The biggest pure renewables competitor is the Danish company Ørsted, with 9,900 MW installed and 15,500 GWh of energy produced from wind power in 2019 (a 30% share of the global renewable market). ERG's current production run-rate is slightly down from previous years due to the still ongoing repowering of wind farms (started in 2018) and somewhat worse wind conditions. This has been partially mitigated by the newly acquired wind farms in France (38 MW of installed capacity) and Germany (100 MW). The national demand for electricity for the first nine months of 2020 was down 6.9% compared with the previous year. Imported energy dropped by 26%, while domestic production declined by 4%. During the same period ERG generated approximately 2% of the energy demanded in Italy (6,120 GWh).

SWOT analysis: One of ERG's main strengths is represented by its "Optimization and Internalization" practice. Thanks to the accumulated know-how, the group has "internalized" all the maintenance operations, leading to a greatly improved performance (as evidenced for example by the repowering and reblading activities of the company). That said, natural resources are inherently unpredictable, mainly hydroelectric and wind sectors. To "hedge" against atmospheric conditions, ERG has increased its diversification both geographically and by sector (the clearest example being the entry into solar). Considering their high importance on the Company's margins, the end of the incentives represents one of the main sources of threats (for further information refer to *Exhibit 18* and *Appendix 2.9*).

FINANCIAL ANALYSIS

Historical

Revenues: Despite massive investments over the last 5 years, revenues have grown at just 2.8% CAGR. That was not necessarily due to an insufficient return on invested capital, but rather to the second "transformation" of ERG (from thermo to wind and solar), in addition to the high volatility of the inputs and of market demand. Indeed, revenues from thermo decreased by about 29% while wind grew about 20% in 2015-2019. Moreover, since the inputs are natural phenomena, the quantity of outputs is very unpredictable in the medium and long run. For instance, 2019 has not been a windy year, slightly reducing outputs - and so potential revenues - compared to 2018, while the first nine months of 2020 have shown a marked recovery. Finally, the "structure of incentives" also has a relevant impact on revenues, with the company losing some of the incentives in 2019. However, we remain, positive on the outlook for the sector over the next few years.

Margins and returns: 70% of the group's EBITDA is composed of incentivised tariffs, granting a certain amount of stability to the business. EBITDA has actually increased over the last 5 years (12.6% CAGR), contributing to the expansion of the related margin (from 33% in 2015 to 47% in 2019). This improvement was mainly due to a better management of COGS (decreasing from 44% of sales in 2015 to just 28% in 2019) which has been implemented in order to achieve greater efficiency. The wind segment is the biggest contributor to EBITDA (60% in 2019). But solar operations are gaining importance (13% of EBITDA in 2019): the company recently acquired 51 MW of new photovoltaic plants, which contributed €32 million in EBITDA. With the exception of 2018, margins are more stable in programmable energy operations (hydro and thermo). Indeed, in the same year favourable conditions lifted the hydroelectric operations, while the thermoelectric segment experienced a reduction in EBITDA, caused by the elimination of "Corrispettivo di Reintegro" (for an amount of €31 million). Return on Equity has recently been quite subdued and lower than peers (c.2% in 2019 for ERG vs. over 9% for pure peers). The poor results for last year (*Appendix 3.4*) were mainly due to higher financial expenses that reduce net income. The weaker result for 2019 appears also through the DuPont Analysis (*Exhibit 22*, *Appendix 3.2*): a marked reduction in the net profit margin with a marginal improvement in the capital turnover ratio (from 19.6% in 2015 to 22.7% in 2019). ROIC in 2019 was 4.5%, slightly higher than the average for pure peers (c.4%). ROIC has been also characterized by an increase from 2015, leading to a CAGR 2015-2019 of 6.22% (*Appendix 3.2*, *3.3*).

Cash & Financial debt: Liabilities for project financing amounted to €812 million in 2019 and are the main sources of long-term financing for the group (*Exhibit 20*). The total debt to total capital ratio as at the close of the previous fiscal year was 57%, below the peers' average (66%) and also stable across time. Net debt/EBITDA increased over the last three years, reaching 4.0x in 2019 (currently down to 3.9x as of September 2020) and exceeding the 3x management target upper bound. In the last year, the EBITDA interest coverage ratio suffered due to high interest expenses on debt, moving to 3.6x, but still well above peers' average (2.7x). For dividends, the ordinary dividend has increased during the years, reaching an amount of €0.75 per share. The payout ratio is very high with respect to its peers (354% for ERG vs 77% as avg. for comparables), considering that the 2019 value is influenced by the exceptional low value of net income.

Accounting: To evaluate ERG's earnings quality, we applied the 8-variable Beneish M-score analysis (*Appendix 3.7*, *Exhibit 23*): based on the results over 2015-2019 (an average M-Score of -2.9, which is below the -2.0 indicator, with the lower bound of the at -2.0 and the upper bound at -1.78), we believe there is a very low likelihood that the company has been manipulating accounting numbers.

Capital Expenditures & Working Capital: CapEx is primarily focused on wind farms acquisitions, investments in PP&E and in strengthening operating efficiency, flexibility and reliability of programmable sources plants.

Exhibit 19 – Historical EBITDA margin vs. revenues (mln €)

source: company report, team elaborations

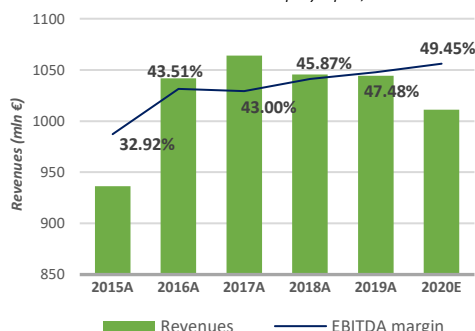


Exhibit 20 – Debt Structure (31/12/2019)

source: company report, team elaborations

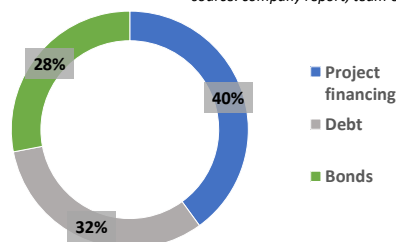


Exhibit 21 – CapEx cycle

source: company report, team elaborations

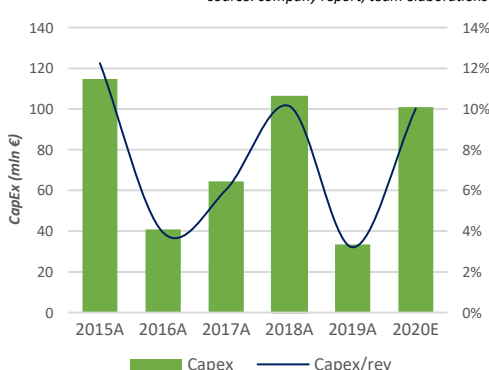


Exhibit 22 – Dupont analysis

source: company report, team elaborations

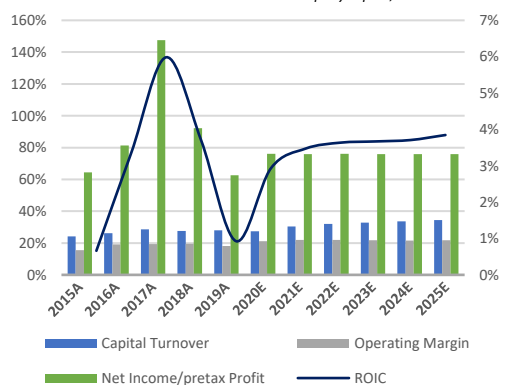


Exhibit 23 – Beneish M-Score

source: company report, team elaborations

M-score Analysis	2016	2017	2018	2019
Day Sales in Receivable Index	0.767	0.854	1	0.77
Gross Margin Index	0.819	1.023	0.969	0.952
Asset Quality Index	0.852	1.015	1.084	1.03
Sales Growth Index	1.113	1.021	0.983	0.999
Depreciation Index	0.765	0.935	0.96	0.884
SG&A Index	1.077	0.95	0.969	1.08
Accruals to Total Assets	-0.065	-0.046	-0.019	-0.093
Leverage Index	1.018	0.909	0.995	1.138
M-Score	-3.099	-2.762	-2.567	-3.209

Exhibit 24 – Future Net Debt/EBITDA (mln €)

source: team elaborations

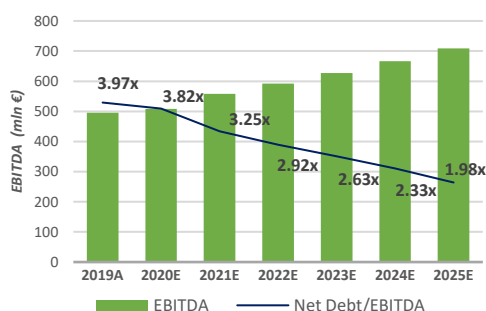


Exhibit 25 – Future CapEx (mln €)

source: company report, team elaborations

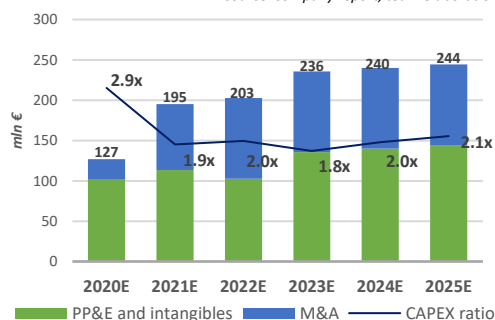


Exhibit 26 – Transaction multiples (2014A-2020E)

source: FactSet, team elaborations

Year	ERG EV/sales	ERG EV/EBITDA	Comparables EV/EBITDA
2020E	4.95x	9.48x	18.64x
2019A	4.53x	9.07x	12.84x
2018A	3.90x	9.84x	11.1x
2017A	3.79x	8.72x	10.34x
2016A	3.49x	6.81x	11.42x
2015A	2.52x	7.54x	10.13x
2014A	2.02x	9.31x	10.56x
Mean	3.70x	8.68x	12.15x
Median	3.79x	9.07x	11.10x

Over the last five years, the CapEx ratio has been below 1.0, which means that the company invested in capex more than the cash it generated from operations. This is because the group expanded abroad through M&A and greenfield developments in wind power, it acquired ERG Hydro S.r.l. in 2015 (for €950mln) and it entered the solar industry in 2018 (for €345mln). In 2019, expenses for rebalancing represented the major investment in Italy, with the first operation completed on a 13.2 MW wind farm. ERG's CapEx is subject to cyclicity (Exhibit 21): the 2017-2019 CapEx cycle is attributable to investments for the entrance in the PV power generation in 2018. The net impact on cash flows was however limited, given the inflows from the sale of TotalErg during the same year. We do not expect this cyclicity to be maintained in future years, as we believe ERG will continue to invest in the development and maintenance of the existing business segments, chiefly wind. Working capital needs has improved up to 2019 (a -6.3% CAGR over 2015-2019), for a current value of around €140 million.

Forecasts

Revenues: We expect revenues to keep expanding, mostly due to growth CapEx and acquisitions: our base scenario is for a 4.7% CAGR over the next 5 years (2020 to 2025). Wind and solar are expected to grow the fastest, reaching 46% and 12% of total revenues, respectively, in 2025 (vs 42% and 8% in 2020). Hydro and thermo will account less in percentage terms, but their absolute contribution will remain stable thanks to improvements in efficiency. Our estimates are largely dependent on two variables: M&A and incentives. While M&A is endogenous and controlled by management, incentives are mostly exogenous. We expect ERG to continue its acquisition strategy to consolidate its leading position in the market. Incentive policies are expected to persist in the next few years to reach the target imposed by the European Commission and the Paris Agreement on Climate Changes. Finally, our forecasts for PUN assume a reversion to the pre-COVID price levels, thus positively affecting revenues (Appendix 3.8). According to the company's intentions, the developments of PPAs ("Power Purchase Agreements") will be another important tool to reduce risks as well as a new source of revenues.

Margins and returns: According to our estimates, we expect the group's EBITDA margin to improve to 56% in 2025, mostly thanks to a reduction in COGS as a result of the Energy Management department. This target could be eroded by: (i) an increase in the SG&A expenses, with the decision to continue the internalization of the Operation & Maintenance process; (ii) a decrease in thermoelectric segment's results as a consequence of the reductions in the incentives expected for future years, which would see the segment EBITDA decrease from €69 million to €62 million. On the other hand, the hydroelectric segment will be characterized by stability, intrinsic with the sector, with a steady EBITDA margin of 72% for 2020-2025. Both ROE and ROIC are expected to rise. Growth in revenues, margins' improvements and the reduction in interest expenses will all contribute to an 8.9% ROE and a 8.2% ROIC in 2025.

Cash and Financial debt: We expect the debt to capital ratio to decrease to 53% in 2025: (i) as highlighted by the group, long-term financial liabilities are expected to decline: a €500 million green bond issued in 2020 has already in part been used to reimburse other non-current Project Financing; (ii) cash will accumulate; (iii) the growth in Net Profit will rise shareholders' equity, despite no capital increase deliberated and constant dividend paid (-113mln in the 2021-2025 period). We believe interest expenses will reduce, contributing to an improvement in the EBITDA interest coverage ratio to an average of 6.8x over 2020-2025. Finally, we expect the group to be able to keep its financial position within the 3x target starting in 2022 (Exhibit 24). Considering the availability, the cash will be used to improve the financial situation and to grant an ordinary dividend per share of €0.75.

CapEx & Working Capital: Capital expenditures have dropped in 2020 (-71%), but we expect them to rise again in the 2021-2025 period at a 5.8% CAGR as European economies start to recover from the pandemic. According to ERG's business plan, total capacity is expected to reach 3,590 MW in 2022: most of the investments will be in solar and wind. The CapEx Ratio was close to 3x in 2020 but will decrease to an average of 2.1x over the next 5 years (Exhibit 25). Our scenario is based on the on-going shift to more efficient and flexible projects (both repowering and rebalancing require lower levels of CapEx), hence increasing the installed MW (+648MW in 2020-2025) and energy output. As capacity and revenues grow, working capital is also expected to absorb more funds (a 11.2% CAGR to arrive at €270 mln in 2025), as we expect payables to drop in the forecast period (-5% CAGR 2020-2025), continuing the past trend.

M&A

ERG has historically relied on acquisitions to expand geographically and to increase its production base (Appendix 3.11). Since 2004 there have been 26 acquisitions in wind plants and companies, 2 in solar and other 2 in hydroelectric. The median EV/EBITDA multiple paid by ERG during this period was 9x, compared to 11x for similar transactions (Appendix 3.12). Following the sale of the ISAB Energy plant, the ERG Oil Sicilia fuel network and the complete transformation of the company into a renewable energy producer, the EV/EBITDA CAGR for the period 2014-2019 is 0.45%. The change of sector has marked a strong decrease in revenues but, at the same time, an increase in enterprise value (+92.4% on EV/revenues between 2013 and 2014). Acquisitions have been a pillar of ERG's strategy, as they allowed the company's transformation to be faster than it was possible organically. However, the sector is not characterized by significant economies of scale: an increase in sales does not automatically translate into a rise in profitability. The value of acquisitions is mainly derived by the cost savings obtained from the purchase of new plants, rather than from their construction from scratch. The company has already achieved its M&A goal of 250 MW of facilities, planned for the 2018-2022 period. The expected growth in the energy traded by the group is 25% by 2022, considering new acquisitions on solar in Italy and other sources abroad.

Future: As a result of COVID-19, M&A activity has slowed dramatically: a decrease of 83% for 2020 with respect to 2019. According to the company's business plan, for 2021 we estimate net acquisitions of € 81.75 million. This growth is justified both by the resumption of ordinary activities post pandemic and by the company's expansionist projects (2022 M&A target: 250 MW total capacity). We assume that ERG will slightly increase its acquisition activities in light of: (i) the expressed intention to keep expanding in both wind and solar sectors; (ii) the favourable regulatory and political framework; (iii) the growing interest of the markets and public opinion towards environmental issues (green awareness). Considering that these activities are difficult to predict accurately, we estimated average M&A transactions of € 100 million for the years 2023-2025.

Exhibit 27 – Financial highlights

source: company report, team elaborations

In million €	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Revenues	936.3	1,041.8	1,064.1	1,045.6	1,044.4	1,011.0	1,090.0	1,130.8	1,174.0	1,221.6	1,274.0
Wind	317	423	445	389	414	413	442	473	506	541	579
Solar	0	0	0	38	71	75	87	101	115	132	150
Hydro	11	122	137	194	119	115	137	137	137	137	137
Thermo	592	479	464	405	418	390	406	402	398	394	390
Growth %	-	11.27%	2.14%	-1.74%	-0.12%	-3.19%	7.81%	3.75%	3.82%	4.05%	4.29%
Gross Profit	523.7	711.6	708.3	718.4	753.6	730.6	791.7	837.2	885.0	936.9	993.1
Gross margin	55.93%	68.30%	66.56%	68.71%	72.15%	72.26%	72.63%	74.03%	75.38%	76.69%	77.95%
SG&A expenses	215.5	258.3	250.7	238.8	257.7	222.4	233.6	245.2	257.5	270.4	283.9
SG&A/Sales	23.02%	24.79%	23.56%	22.84%	24.67%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%
EBITDA	308.20	453.30	457.60	479.60	495.90	508.18	558.13	591.95	627.51	666.49	709.23
Wind %	82.41%	67.95%	69.06%	57.13%	60.70%	58.49%	56.98%	57.49%	58.02%	58.46%	58.78%
Solar %	-	-	-	6.67%	12.70%	12.94%	13.67%	14.95%	16.08%	17.25%	18.48%
Hydro %	2.60%	18.53%	20.54%	30.44%	17.54%	16.29%	17.72%	16.71%	15.77%	14.84%	13.95%
Thermo %	34.72%	16.99%	17.05%	11.05%	13.91%	12.28%	11.63%	10.85%	10.14%	9.45%	8.79%
EBITDA margin	32.92%	43.51%	43.00%	45.87%	47.48%	50.26%	51.21%	52.35%	53.45%	54.56%	55.67%
EBIT	145.20	199.60	206.70	205.50	189.95	213.78	247.96	264.77	282.95	303.25	325.97
EBIT margin	15.51%	19.16%	19.42%	19.65%	18.19%	21.14%	22.75%	23.41%	24.10%	24.82%	25.59%
Net Income	23.70	124.70	206.80	132.70	32.77	102.08	123.34	133.68	144.91	157.50	171.63
Net margin	2.53%	11.97%	19.43%	12.69%	3.14%	10.10%	11.32%	11.82%	12.34%	12.89%	13.47%
Growth %	-	426.16%	65.84%	35.83%	75.30%	211.48%	20.83%	8.38%	8.40%	8.69%	8.97%
FCFF	-992.72	300.26	312.75	242.84	182.92	326.61	276.26	297.55	293.67	335.20	367.27
NWC/Sales	19.78%	14.64%	34.56%	19.13%	13.66%	14.47%	15.90%	17.82%	19.75%	20.51%	21.18%
CapEx/Sales	132.79%	7.59%	7.17%	24.16%	18.05%	12.53%	17.92%	17.92%	20.06%	19.63%	19.18%
NET Debt/Equity	118.2%	122.0%	90.7%	103.9%	109.4%	110.2%	102.5%	96.6%	90.7%	83.3%	73.2%
NET Debt/Ebitda	6.62	4.65	3.72	3.96	3.97	3.82	3.25	2.92	2.63	2.33	1.98

VALUATION

Exhibit 28 – WACC sensitivity

source: team elaborations

		Terminal year growth						
		0.9%	1.2%	1.4%	1.7%	1.9%	2.2%	2.4%
WACC	5.9%	39.7	36.8	38.1	40.5	42.2	45.1	47.4
	6.4%	31.0	32.5	33.6	35.3	36.6	38.9	40.5
	6.9%	27.9	29.0	29.9	31.3	32.3	34.0	35.2
	7.4%	25.2	26.2	26.8	27.9	28.8	30.1	31.1
	7.9%	23.0	23.8	24.3	25.2	25.9	27.0	27.7
	8.4%	21.1	21.8	22.2	23.0	23.5	24.4	25.0
	8.9%	19.5	20.1	20.4	21.1	21.5	22.2	22.7

Exhibit 29 – Optimal WACC

source: team elaborations

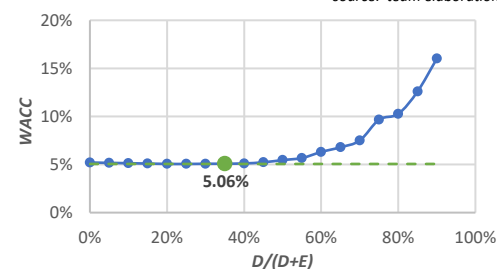
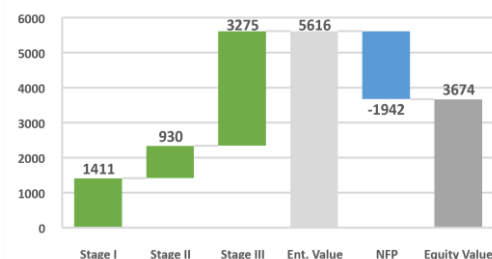


Exhibit 30 – DCF Bridge (mln €)

source: team elaborations



DCF: Our DCF intrinsic valuation points to a fair value for ERG of **€27.9**. To complement our assumptions, we also put in place a Montecarlo simulation and a sensitivity analysis. We used a three-stage discounted cash flows model, as the company is currently in an expansion phase, which should be followed by a more mature period and finally a steady state. For the first stage we assumed a negative risk-free rate of -0.54%, equal to the current 10-year Bund rate. Granted a swift recovery from the COVID crisis, EBIT is expected to increase markedly in the first two years of the growth phase (+16% in 2021 and +7% in 2022). CapEx is also expected to rise, mainly in the wind and solar sectors, given the current strategic plan. During the second stage, EBIT is assumed to grow in line with revenues (+1.7% CAGR). In the steady state (starting in 2030), EBIT is assumed to grow in perpetuity at the GDP growth rate forecasted by IMF (International Monetary Fund), for advanced economies, also 1.7% (*Appendix 4.1*). CapEx and D&A follow the same trend as in previous years, remaining in line with the growth of revenues and operating income, while we estimated a slight decrease in acquisitions, more coherent with the assumptions for terminal value (-5% YoY) (*Appendix 4.2, 4.3, 4.4*).

WACC components

Driver	Period	Value
Risk-free rate	2021-2025	-0.54%
	2026-2030	1.69%
	2030	1.69%
Equity Risk Premium	2021-2030	8,1%
Beta	2021-2029	0.654
	2030	1
	2030	1
Ke	2021-2025	4.76%
	2026-2029	6.99%
	2030	9.79%
Kd (after-taxes)	2021-2025	0.97%
	2026-2030	2.66%
	2030	2.66%
Tax rate	2021-2030	24%
	2021-2025	3.49%
	2026-2029	5.54%
WACC	2021-2025	3.49%
	2026-2029	5.54%
	2030	7.40%

Exhibit 31 – Relative valuation

source: team elaborations

	EV/Sales	Price derived
Average 3 years	5.04x	€ 24.2
Median	4.50x	€ 20.5
Average 5 years	5.57x	€ 27.8
Median	4.60x	€ 21.2

Exhibit 32 – EV/EBITDA regression

source: team elaborations

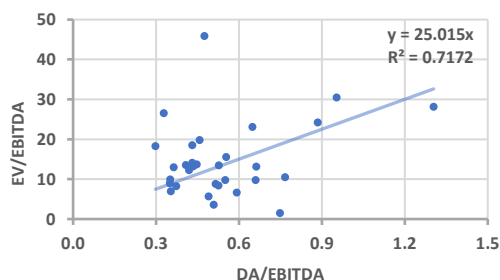
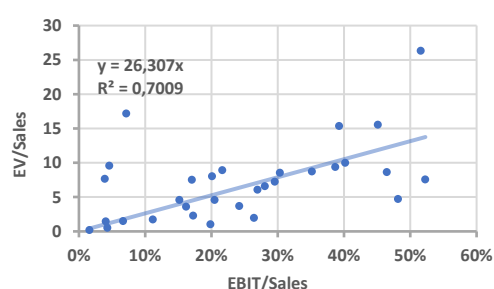


Exhibit 33 – EV/sales regression

source: team elaborations



Optimal WACC

We computed the optimal WACC (*Exhibit 29*) starting from the following assumptions: (i) spreads calculated according to “*Ratings, Interest Coverage Ratios and Default Spread, A. Damodaran*” (ii) sector unlevered beta equal to 0.71 (“*betaEurope*”, A. Damodaran) and (iii) DCF analysis values for ERP (8.098%), Rf rate (-0.54%) and tax rate (24%). The optimal WACC turns out to be 5.06% and the optimal level of debt to capital is around 40% (57.4% in 2019). The debt structure of the firm is almost in line with the optimal one, but we assumed that in the future years they will try to reduce the debt weight, according to their assumptions.

Relative valuation

Given the differences across countries’ level of taxation and capital structure, a relative is better conducted using EV/EBITDA and EV/Sales multiples. Multiples are based on the 4 closest pure peers: Falck Renewables, Alerion Green Power, Orsted and Encavis. The results were averaged over 3 and 5 years (*Appendix 4.5, 4.6*). From the average EV/EBITDA multiples we arrive at a price of €25.2 (avg 3 years) and €27.5 (avg 5 years). As this multiple can be distorted by accounting policies and companies being in different phases of growth, we have also presented our calculations using the EV/sales multiple. Applying the 3-year and 5-year averages to ERG’s current sales we derive an enterprise value of €5,097 mln and €5,632.5 mln, which correspond to a valuation of €24.2 and €27.8 per share, respectively (*Exhibit 31*).

Regression results

To check our results, we ran a series of regressions over the previously chosen multiples, further analysing the impact of EBIT/Sales and D&A/EBITDA. We used three samples with different comparable companies according to their sector and geographical positioning. All of them have been run without the intercept, as it has resulted in not significant. The sample with the largest number of companies had the highest R-squared for both EV/EBITDA and EV/Sales. The primer’s regression gave a result of 14.75x, leading us to the same thesis presented above (comparables’ EV/EBITDA could be manipulated by accounting choices). Furthermore, the absence of the intercept has probably influenced the coefficient for the regressor DA/EBITDA, making it positive and giving a result that goes against the formula from the fundamentals (*Appendix 4.7*). Thus, we derived the price considering the regression for EV/Sales getting a result of €27.74.

Transaction results

For similar past transactions, we focused our analysis on a “technical” multiple: EV/MW, i.e., the amount paid for each MW of installed capacity (*Appendix 4.8*). The average multiple over 2011-2020 was 1.8x: considering ERG’s current total capacity of 3,235 MW, the company could be worth €28.9 in an arm’s-length transaction with a private buyer.

Combining the DCF and multiples analysis, including the results of a Montecarlo simulation with the lower (€21.5) and upper (€29.1) bounds (*Appendix 4.4*), we confirm our HOLD recommendation and a €27.9 target price.

Exhibit 34 – Price from transactions

Average multiple	Capacity ERG 2020	EV derived (Mln)	NFP (Mln)	# shares	Price Derived
1.79x	3,235 MW	€5,792.8	€ 1,493	148,869	€ 28.88

Exhibit 35 – Risk Matrix

source: team elaborations

		IMPACT			
		Minimal	Moderate	High	Shocking
LIKELIHOOD	Unlikely		.9, .11		
	Possible	.2	.10	.5, .7	
	Likely		.1		
	Almost certain	.3	.4, .6, .8		

INVESTMENT RISKS

ERG operates in a strictly regulated sector, with 70% of EBITDA coming from activities supported by incentives. According to Fitch Ratings (“*Fitch affirms ERG S.p.A. at ‘BBB-’; Outlook Stable*”; 14 May 2020) this proportion is expected to decrease over 2022-2024, but regulatory risks could still affect the company’s performance. In addition, the ever-rising support for sustainability from both European and national legislations is attracting more players, increasing the risk to ERG’s competitive position. In terms of macro-risks, Coronavirus is expected to have economic effects in the long-term, but ERG’s services are deemed essential and therefore subject to business continuity. Instead, the uncertainty related to the variability of RES can significantly affect the operations of the group, given that climate change can weaken the accuracy of forecasting systems. Particularly, wind represents the main segment of the group’s portfolio and one of the most difficult sources to be forecasted. We performed a sensitivity analysis, starting from available data on wind speed generation in Italy and abroad, in order to predict the expected energy produced for the 2020-2022 period (*Appendix 5.1*). From a financial perspective, no risk emerged as critical with the potential rating downgrade being the only one to pose the attention on, while corporate governance-related risks are not analysed here but presented in the specific section (ESG).

Macroeconomic Risk

1. Natural variability of RES

Impact ● ● ○ ○

Likelihood ● ● ● ○

Many sources of renewable energy are subject to unpredictable but natural climate changes, both across time and countries, which could lead to lower than expected energy generation and consequently impact group’s results (*Exhibit 36*). In particular, electricity output, available GWh and load factors (*Exhibit 37*) in the wind sector are subject to the sites location’s specific climate conditions: for 2019, one third of the increase in generation in wind farms came from better wind conditions at the Italian sites (+149 GWh), with the rest coming from abroad (+387GWh abroad is attributable to greater output in France, of which +242 GWh coming from new plants). But wind forecasts are inherently less precise: installed onshore wind turbines have been growing consistently in capacity, rotor diameter and hub height, which has introduced new difficulties in having exact estimates. However, data on wind speeds have also become increasingly available, leading to a reduction in resource risk. ERG tries to mitigate these risks by diversifying the assets portfolio (both technologically and geographically); by using accurate forecasting systems in defining the production plans; by exploiting synergies between different RES; and by continuously monitoring the performance of plants.

2. Commodities prices

Impact ● ○ ○ ○

Likelihood ● ● ○ ○

The volatility of purchase and sale prices in the commodities markets can affect group results. However, the variability in the prices of Gas, CO2 and EEC, associated with the production of cogeneration energy (CCGT plant), have provided good results in 2019 (€69mln EBITDA, +€16m with respect to 2018). Even if we expect carbon prices to increase to reach the goals set by the 2015 Paris Agreement, ERG is trying to radically reduce its carbon emissions. Moreover, given the close relationship between the

price of natural gas and the PUN, ERG can balance the cost of purchased gas with the sale price of electricity. The uncertainty related to the EEC market is higher, because as the number of released certificates dropped during the past years, their offer became less elastic and new corrective measures had to be introduced.

3. Coronavirus

Impact ● ○ ○ ○
Likelihood ● ● ● ●

From February through mid-May 2020, safety regulations and mobility restrictions temporarily delayed construction of renewable energy installations, especially in onshore wind. Since mid-May, renewable electricity has shown strong resilience for what concern construction projects, policy implementation and financing. ERG has maintained business continuity and demonstrated the ability to manage the effects related to the Covid-19 pandemic, meriting a “stable outlook” rating from Fitch Ratings. Indeed, the uncertainty related to new, localised lockdowns in Italy since October seems to be a limited threat for the group.

4. Brexit

Impact ● ● ○ ○
Likelihood ● ● ● ●

Since February 2020, the United Kingdom has officially become a third-party country with respect to the European Union. Significant elements of uncertainty still exist and could have potential repercussions on financial markets and the group's results: examples include the progressive devaluation of the British Pound relative to the Euro and greater volatility in financial markets. Considering the limited exposure to the UK economy (just 254 MW of wind power, currently under construction), the risk has an expected limited impact. Moreover, the replacement of the ETS EU mechanism, with a UK Emissions Trading Scheme (UK ETS) from 1 January 2021, together with the auctions related to the CfD scheme, provide a favourable condition for the group, which could profit from the regulatory background.

Regulatory Risk

5. Change in incentive policies

Impact ● ● ● ○
Likelihood ● ● ○ ○

The last few years have been characterized by a transition from FIP & FIT rates to competitive auction schemes in the major countries where ERG operates. This resulted in lower operating margins in newly built plants, partly offset by a longer duration of incentives. The ratification of the European Green Deal appears to dispel any concerns regarding future support for the renewables industry.

6. Stringent rules on the concessions of large hydroelectric power plants

Impact ● ● ○ ○
Likelihood ● ● ● ●

The European Commission reiterated the objections to the Italian Legislation related to the violation of the Directive on Services (2006/123/EC) and the TFEU. According to the EC, transparent and impartial tenders for the renewal of Italian hydroelectric concessions that have expired or are about to expire have not yet been launched at EU level. Moreover, compensation is imposed in favour of the outgoing concessionaire that would be penalizing for the incoming one. If these complaints were to be met by the Italian Government, ERG would face increased competition in the future tender regarding the license of the Terni hydroelectric plant (which expires in 2029).

7. Risks that legislation may prevent an appropriate repowering process

Impact ● ● ● ○
Likelihood ● ● ○ ○

The reblading and repowering processes of Italian wind farms are a fundamental part of the group's strategy and should bring an additional 250 MW by 2022. The Italian bureaucracy represents a tangible risk because the procedure for the authorization of a repowering activity is comparable to the construction of a wind farm from scratch. Therefore, there is a chance that the group will not reach the target set for 2022 or that these plants will end up being built when the technology is already obsolete. Moreover, the "Spalma Incentivi Volontario" ("Voluntary Incentive Allocation") Law prevents plants, which in 2015 did not accept a reduction in the value of incentives, to any form of support for 10 years after the end of their subsidized period. This situation has been partially mitigated after the approval of Italian Law no. 120/2020: existing plants that have not adhered to the above-mentioned law are now admitted to renewal and participation in auctions organized by the GSE. In addition, the new law is expected to simplify the authorization process for repowering activities.

Competitive Risk

8. Risk of new competitors from the fossil energy field

Impact ● ● ○ ○
Likelihood ● ● ● ●

Due to increasing limitations on fossil fuels, particularly within the EU, oil companies are focusing more on renewable energy production. The International Energy Agency predicts that companies in the *Oil and Gas Climate Initiative* (OCGI) will increase their investments in renewables tenfold to 5 GW globally, with 95% of these investments from European companies. This may lead to increased competitive pressure in the sector, with electricity supply growing faster than demand and consequently leading to a potential drop in sales prices, both in competitive auctions and through the free market. The scenario is partially mitigated by the fact that these companies will grow largely through acquisitions and that they may enjoy less support from ESG funds in terms of access to capital.

Strategic Risk

9. Risk of new investments

Impact ● ● ○ ○
Likelihood ● ○ ○ ○

By 2022 the group plans to increase its production capacity by 650 MW through a combination of acquisitions and greenfield projects (the construction of new plants), prevalently abroad. In the renewable energy sector, both maintenance and growth CapEx represent a significant portion of uses of funds. Consequently, an accurate assessment of expected returns from these investments is essential. The presence of incentives and/or price agreements with long average durations makes expected cash flows more predictable.

Financial Risk

10. Risk of rating downgrade

Impact ● ● ○ ○
Likelihood ● ● ○ ○

ERG has currently a BBB- credit rating with stable outlook from Fitch as the rating agency believes the company to have a stable business and to be resilient to the challenges of the last 12 months. Furthermore, this rating is directly linked to internal variables (such as financial leverage) which are under management's control. However, a significant worsening of macroeconomic metrics (such as prolonged sanitary crisis and recessions in Europe or domestic political instability, that could threaten Italy's credit rating) could also force the downgrade of ERG, which would push the credit rating below investment grade and thus prevent the company from accessing additional sources of capital. This could trigger a dangerous knock-on effect that would reduce the group's estimates of new investments downwards.

Operational Risk

11. Risk of business interruption

Impact ● ● ○ ○
Likelihood ● ○ ○ ○

ERG results are strongly linked to climate and atmospheric conditions. To manage the risks deriving from such events, the group implements risk mitigation operations such as safety management policies, preventive maintenance measures, the use of instruments for managing and remotely controlling the technical parameters in order to detect any anomalies as well. In addition, a strong geographical diversification and the stipulation of policies aimed at the compensation of possible damages contribute to minimize the losses deriving from possible stoppages of the operations. Nevertheless, the Terni hydroelectric plant and the thermoelectric plant in Sicily have a capacity of 527 MW and 480 MW respectively (about one third of the group's total capacity), so any interruption of their activities could cause significant damage to the company.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE

Exhibit 36 - Plants generation (GWh) and Adj. EBITDA (mln €)

source: company report, team elaborations

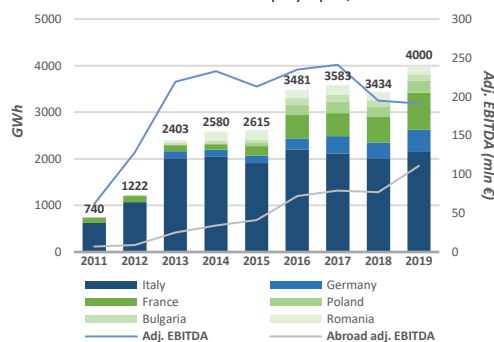


Exhibit 37 - Load factor (Wind Italy)

source: company report, team elaborations

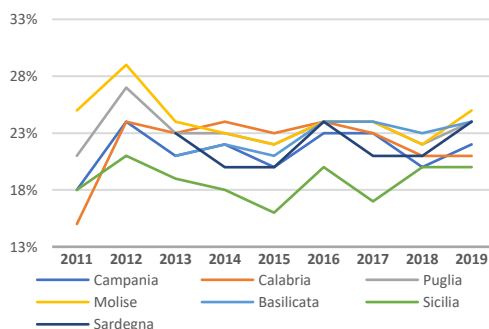


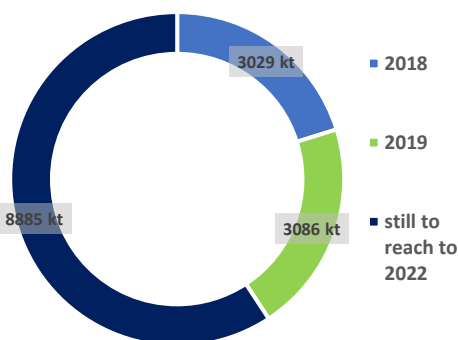
Exhibit 38 – ESG Rating table

source: team elaborations

Rating in 1/10th	Rating in Letters
0 – 4	G
4 – 5	F
5 – 6	E
6 – 7	D
7 – 8	C
8 – 9	B
9 – 10	A

Exhibit 39 – 2022 Objective to reach: 15000 kt (gCO2/kWh)

source: company report, team elaborations



Our proprietary ESG model computes a **B score** for ERG, taking into consideration the 2020 ISS ESG Governance QualityScore and MSCI ESG Rating to develop our scorecard. For each pillar of the ESG framework, we defined several critical aspects and attributed a score from 1 to 5 to each of them. The scores for each section are then added and normalised over the maximum obtainable points, and then converted in 1/10ths. The final ESG final outcome is the simple average of the scores for the three single pillars. This numerical rating is finally converted into grades from A to G. Using this methodology (summarised in *Exhibit 38* and fully detailed in *Appendix 6.1*), we get: (i) a score of 32/35 for Environmental, corresponding to 9.1 (A); (ii) 34/40 for Social, corresponding to 8.5 (B); (iii) 53/70 for Governance, corresponding to 7.6 (C). The decimal average value of the three pillars is 8.4, corresponding to a B grade for the ESG of the company.

Environmental

With the implementation of ISO 14001 and the recently completed transition to pure renewable sources, ERG has increased its environmental focus: according to our ESG model, ERG merits an environmental rating of A. First of all, ERG implements aerodynamics attachments to turbines in order to reduce noise pollution; the repowering and reblading processes lead to improved efficiency of existing wind farms, reducing the need for new ones, which could affect the local and migrating fauna. The attention to nature is also evident in the Oasi of Alviano, currently managed by WWF. ERG has also implemented a “re-use” policy: plastic free offices, office-made composts, reuse of accumulated woods (from the Tiber river to the banks of lake Corbara) and the careful separation of materials in old turbines. In addition, the company is fully committed to reduce CO2 emissions by providing its employees with hybrid vehicles. The firm involvement in the environmental area is reflected also by multiple school projects like “Vai col Vento”, “A tutta acqua”, “Giornata dell’energia elettrica” and “Kinderwind”, by which it tries to pass sustainability principles to the community. ERG is currently committed to reduce emissions by 15,000 kt (gCO2/kWh) between 2018 and 2022: as of 2019 it has also reached 60% of this target (6,115 kt) (*Exhibit 39*).

Social Responsibilities and Initiatives

According to our model, the social pillar has a B rating. While it has been stable over the years, ERG still has an E+ (non-compliant) grade in the most recent Standard Ethics Rating’s report (www.standardethicsrating.eu), which corresponds to a grade of 4 out of 9. The company has three internal committees entrusted to follow sustainability guidelines and corporate social responsibility: Human Capital Committee (HCC), Internal Sustainability Committee (ISC) and Corporate Social Responsibility (CSR) Working Group (*Exhibit 40*). Their purpose is to supervise and evaluate social projects and to select the areas with the highest priority. These committees are also in charge of choosing the projects to be financed, with the funds collected by the Green Bond allocation plan. Through the “Eduardo Garrone Foundation”, ERG is engaged in programs concerning knowledge, entrepreneurship, and social development. Thanks to the “ReStartApp” and “Storie di Giovani Imprese”, it has managed to help young entrepreneurs to develop their business in under-valued areas, in particular in the Apennine mountain range. Furthermore, “Genova Scoprendo” and “Appennino Lab” aim to raise awareness among young people of Genoa’s territory, rediscovering the artistic and natural heritage of the city and of the Apennines. The “Scuola Leggendo” project, on the other hand, aims to accompany children in their education by guiding them in a dedicated teaching path for reading, involving 23,000 children and more than 1,000 teachers from 2006. Some strengths are clearly visible: attention to employee health, human rights, employee career opportunities, and ethical business policies. The company meets the requirements of OHSAS 18001 about worker’s safety and health; the total injury rate is highly decreasing to 2.92 per year in 2019; the turnover of employees is increasing to 5.7% but is still very low. The conduct of all company’s stakeholders is disciplined by the Code of Ethics, even where it is not contemplated by the law. Gender pay gap is almost null, but the number of women employed is still unbalanced to men (20.8%), with only 28% women working in managerial roles. We have no information about the number of employees with disabilities. ERG does not respond to the ISO 9000 Quality Management Principles. Charity donations are 1 million a year, corresponding to €978.86 every million of revenues.

Governance

The most problematic of the ESG framework with a C grade according to our model, mostly due to the current ownership structure, with the Garrone-Mondini families holding a combined 62.5% stake through San Quirico S.p.A. and Polcevera S.R.L., which exposes minority shareholders to potential abuses. Both the chairman and the 2 vice-chairmen of the board belong to one of the two families; Massimo Belcredi (a board and Risk & Control Committee member) is considered independent according to the TUF (“Testo Unico della Finanza”), but not according to the parameters of the “Codice di Autodisciplina” (corporate governance best practices for Italian listed companies); there is not a lead independent director figure. ERG has implemented all the latest directives in corporate governance, adhering to the “Codice di Autodisciplina” and it has aligned the remuneration of the board with the corporate objectives, as established by art. 123.3 of the TUF. It has adopted an anti-corruption system in line with ISO 3700:2016 standards and it has developed an internal code of ethics and a code of conduct to ensure maximum integrity, impartiality, and independence by the employees.

Exhibit 40 – Sustainability management bodies

source: company report, team elaborations



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1. Business Description

Appendix 1.1 – Wind farm components

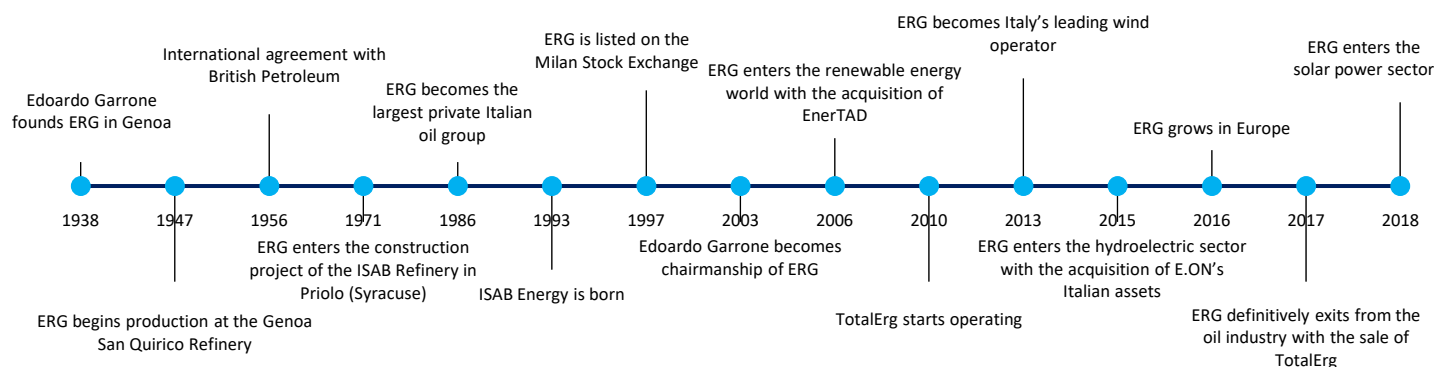
source: www.vestas.com, www.etablades.com, www.enercon.de, team elaborations

	Name	Product type	Manufacturer	Main Locations	Blade length, materials, IEC* class	Rated power
	V90-2MW	Wind turbine	Vestas	Poland, Romania, Bulgaria	44 m, fiberglass, IIA (medium wind)	2,000 kW/2,200 kW
	V112-3.45MW	Wind turbine	Vestas	Scotland, Ireland, Germany	54.7 m, fiberglass, IA (high wind)	3,450 kW
	V100-2MW	Wind turbine	Vestas	Poland, France	49 m, fiberglass, IIB (medium-low wind)	2,000 kW
	V47-660kW	Wind turbine	Vestas	Italy (subject to reblading)	34 m, fiberglass, IIA (medium wind)	660 kW
	eTa4x	Blade	eTaBlades	Avigliano, Lacedonia (Italy)	24 m, carbon and glass fibre, IIA (medium wind)	-
	E92-2.35MW	Wind turbine	Enercon	Ireland	43.8 m, fiberglass, IIA (medium wind)	2,000 kW / 2,350 kW

*International Electrotechnical Commission

Appendix 1.2 - Company transformation process

source: company's website



Appendix 1.3 – Projects under construction and/or ready to build

source: company's website

Project	Country	MW	Start of Construction	Commercial Operation Date	Producibility
Evishagaran	UK	47	1Q 2020	4Q 2021	3700 heq
Sandy Knowe	UK	50	4Q 2020	4Q 2021	3100 heq
Craigmore	UK	23	4Q 2019	4Q 2021	3400 heq
Creag Riabach	UK	79	3Q 2020	2H 2022	2900 heq
Laski	Poland	36	4Q 2020	4Q 2021	2500 heq
Limousine I	France	15	1Q 2021	4Q 2021	2200 heq
Chamapagne I	France	22	1Q 2021	4Q 2021	2300 heq
Vaa2 ext.	France	7	1Q 2021	4Q 2021	2100 heq

Appendix 1.4 – Repowering project portfolio in Italy

source: company's website

# of projects	MW as IS	MW post RPW	Grid connection	Advancement of authorization	Expected commercial operation date
3	92	218	Secured	VIA Decree signed by Environment Ministry, waiting for signature by Fine Arts Ministry (FAM)	2022- beginning 2023
2	69	146	Secured	Positive opinion VIA Commission, waiting for FAM opinion	2022- beginning 2023
2	21	42	Secured	Waiting for VIA Commission opinion	2022- beginning 2023
1	43	113	Secured	Positive opinion VIA Commission, FAM negative opinion under recourse	2023+
2	37	67	Applied	Positive opinion VIA Commission, waiting for FAM opinion	2023+
4	92	195	Secured	Applied for authorization to VIA Commission	2023+
1	18	40	Applied	Engineering for authorization	2023+
15	372	822	Total projects		

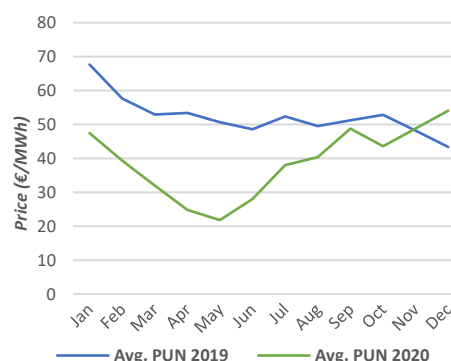
2. Industry Overview and Competitive Positioning

The lower amount of demand has importantly affected the PUN values for 2020. Stopping the production in a high number of sectors and reducing the need to go to offices has damaged the wholesale energy price, leading it down. The significant difference between 2020 and 2019 (taken as an example for a “normal” year) are evident looking at the graph presented below. The most damaged months are the ones of the first lockdown (March, April, and May), from which PUN has started to experience an improvement month by month. The yearly PUN is still significantly injured by the lockdown's decrease, leading to a value of 38.905 €/MWh (average of the monthly PUNs), while the 2019 value was 52.34 €/MWh.

Appendix 2.1 - COVID effects (monthly PUN 2019 vs. 2020)

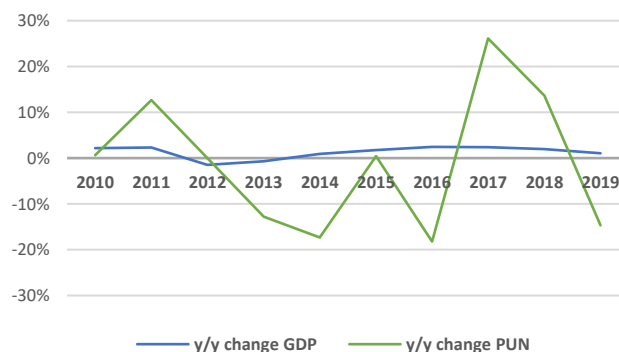
source: Refinitiv, team elaborations

€/MWh	Avg. PUN 2019	Avg. PUN 2020
Jan	67.65	47.47
Feb	57.67	39.3
Mar	52.88	31.99
Apr	53.35	24.81
May	50.67	21.79
Jun	48.58	28.01
Jul	52.31	38.01
Aug	49.54	40.32
Sep	51.18	48.8
Oct	52.82	43.57
Nov	48.16	48.75
Dec	43.34	54.04



Appendix 2.2 - GDP vs. PUN YoY change (2010 – 2019)

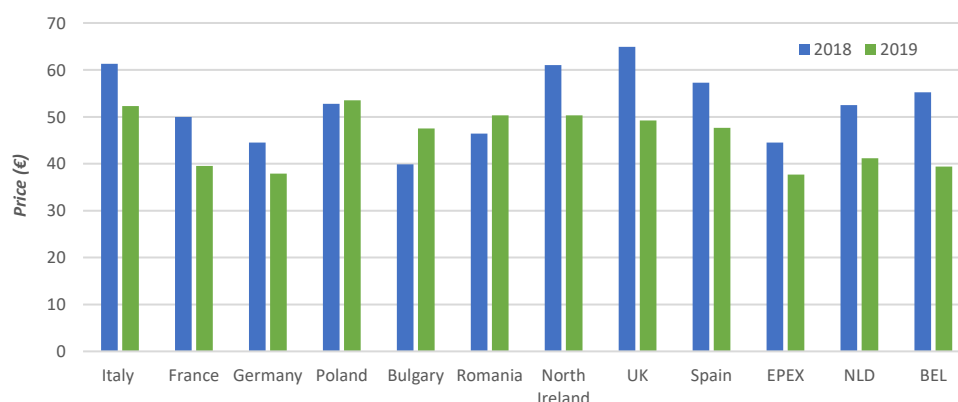
source: Refinitiv, team elaborations



Appendix 2.3 - Annual wholesale prices for country

source: GME, Refinitiv, team elaborations

The following graph and tables represent the wholesale prices for countries in Europe in which the company operates (Italy, Germany, France, Poland, Bulgaria, Romania), wholesale prices of countries in which the group have project under construction (UK and North Ireland), and other markets considered important as a reference for the Euro Energy Power Generation Scene. The data evidence that in 2018 and 2019 the higher wholesale yearly prices were registered in Italy and UK (and North Ireland).



€/MWh	2018	2019
Italy	61.3	52.3
France	50	39.5
Germany	44.5	37.9
Poland	52.8	53.5
Bulgaria	39.9	47.5
Romania	46.4	50.3
North Ireland	61	50.3
UK	64.9	49.2
Spain	57.29	47.68
EPEX	44.5	37.7
NLD	52.5	41.2
BEL	55.2	39.4

The Italian Power Exchange is organized in multiple markets, on which the energy's selling and buying operations are put in place. We can differentiate between Spot Market and Forward Market. The first one is the place in which most exchanges are conducted. The Spot Market is, in turn, organized in multiple ones, among them we identify MGP ("Mercato del Giorno Prima" or "Previous Day Market"), MPEG ("Mercato dei Prodotti Giornalieri" or "Daily Products Market"), MI ("Mercato Infragiornaliero" or "Intra-day Market") and MSD ("Mercato per il Servizio di Dispacciamento" or "Dispatching Service Market"). The MGP is the most important one. It is called the "Previous Day Market" because it is the place where hourly blocks of energy for the day after are negotiated. All the electric operators can participate, the offers are accepted by GME in order of merit, taking also into account the transit limits communicated by Terna SpA (Italian company in charge of managing Italian transmission framework). MPEG is the market on which daily products (products delivered in correlation with relevant periods) are sold. MI is a trading venue for Power Purchase and Sale Bids for each hour of the following day, for the purpose of adjusting the Inputs and Outputs Schedules defined on the MGP. Finally, the MSD is a trading centre of sell and buy offers for dispatching services, used by Terna S.p.A. to solve intra-zonal congestion, to supply the reserve and for real-time balancing between input and withdrawal. Different prices are applied for producers also according to the zone of production, which are North, North Central, South Central, South, Sicily and Sardinia. On the other hand, buyers refer to the PUN ("Prezzo Unico Nazionale" or "National Unique Price"), which is the weighted average of the Zone-Based prices. Each hourly block refers to different zone-based prices and consequently to a different PUN. This feature is caused by the different amount of demand and offer

for each hour, which vary according to the productions and individual's needs (demand) but also according to the different energy production capacity of the moment (e.g., solar PV energy production is higher around midday). This cyclicity affects the PUN, influencing its daily path, as we can see from the paths of the PUN for the 7th of January of 2019 (GME, "Gestore dei Mercati Energetici" or "Energy Markets Operator"). This cyclicity is present also on a week and on a yearly basis, explained by the different needs of energy power among the weekdays and among the seasons.

Appendix 2.4 – Electricity price by zone

source: GME, team elaborations



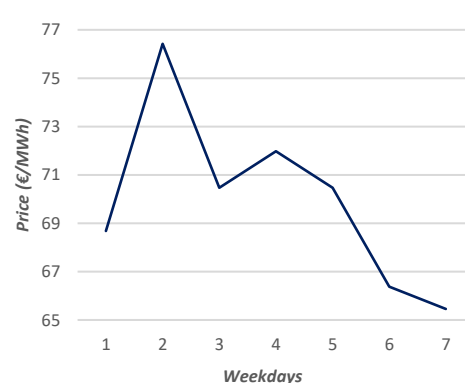
Appendix 2.5 - Hourly PUN on 07/01/2019

source: GME, team elaborations



Appendix 2.6 - Avg. hourly PUN (7th to 13th Jan 2019)

source: GME, team elaborations



Appendix 2.7 - Energy produced ERG vs competitors

source: Refinitiv, team elaborations

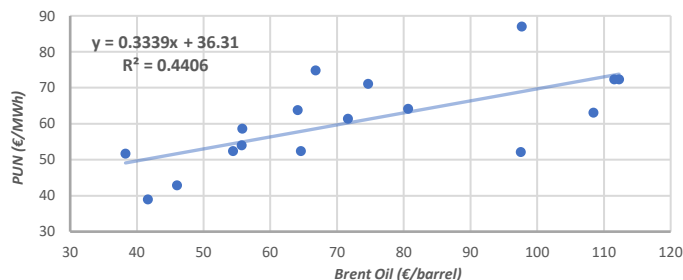
	# of plants	Power Installed (MW)	Energy Produced (MWh)	Duration (h)	Average MWh produced for an installed plant	
ERG	141	3077	7,959,000	2587	56,447	
Wind	91	1929	4,000,000	2074	43,956	
Solar	30	141	226,000	1603	7,533	
Hydro	19	527	1,229,000	2332	64,684	
Thermo	1	480	2,504,000	5217	2,504,000	
ENCAVIS	269	2437	1,728,483	709	6,426	
Solar	187	1541	985,550	640	5,270	
Wind	82	896	742,933	829	9,060	
ØRSTED	30	4600	15,500,000	3370	516,667	
Wind	30	4600	15,500,000	3370	516,667	
FALCK RENEWABLES	45	1087	2,391,000	2200	53,133	
Wind	30	923.4	1,995,000	2160	66,500	
Solar	12	128.6	180,000	1400	15,000	
Others	3	35	21,000	6171	72,000	
ALERION	17	564.3	695,463	1232	40,910	
Wind	17	564.3	695,463	1232	40,910	

Appendix 2.8 – Market regressions

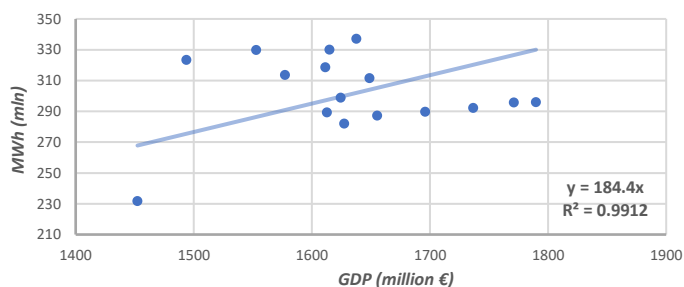
source: Refinitiv, team elaborations

Year	Operators	MWh Wholesale (mln)	Change MWh	Italian GDP	GDP change	PUN	Change PUN	Brent Oil
2004	73	231.57	-	1,452,319	-	51.6	-	38.29
2005	91	323.18	39.56%	1,493,635	3%	58.59	14%	55.81
2006	103	329.79	2.04%	1,552,686	4%	74.75	28%	66.80
2007	127	329.95	0.05%	1,614,839	4%	70.99	-5%	74.68
2008	151	336.96	2.13%	1,637,699	1%	86.99	23%	97.68
2009	167	313.43	-6.98%	1,577,256	-4%	63.72	-27%	64.09
2010	198	318.56	1.64%	1,611,279	2%	64.12	1%	80.65
2011	181	311.49	-2.22%	1,648,756	2%	72.23	13%	112.26
2012	192	298.67	-4.12%	1,624,359	-1%	72.23	0%	111.55
2013	214	289.15	-3.19%	1,612,751	-1%	62.99	-13%	108.44
2014	251	281.99	-2.47%	1,627,406	1%	52.08	-17%	97.52
2015	259	287.13	1.82%	1,655,355	2%	52.31	0%	54.40
2016	253	289.70	0.89%	1,695,787	2%	42.78	-18%	46.00
2017	254	292.20	0.86%	1,736,593	2%	53.95	26%	55.71
2018	271	295.56	1.15%	1,771,063	2%	61.31	14%	71.64
2019	286	295.82	0.09%	1,789,747	1%	52.32	-15%	64.60
2020	283	280.18	-5.29%	-	-	38.92	-26%	41.63

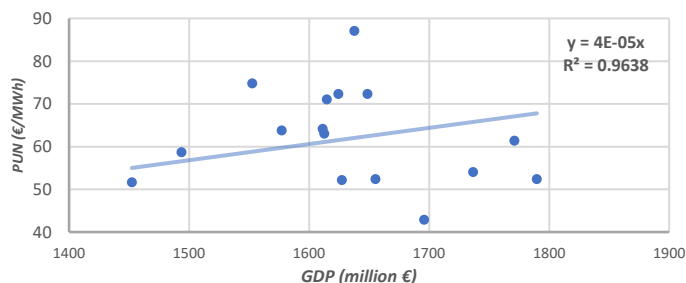
PUN vs Brent Oil linear regression



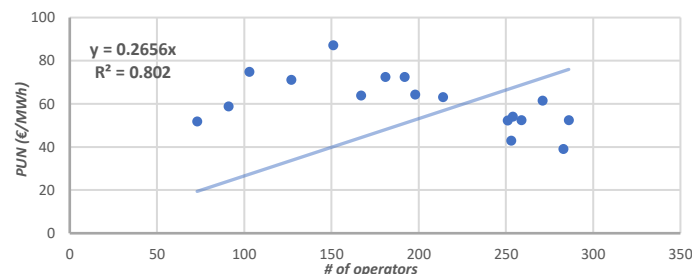
MWh vs Italian GDP linear regression



PUN vs Italian GDP linear regression



PUN vs # of operators linear regression



Appendix 2.9 - SWOT analysis

Strengths	Reblading	Designed for the re-blading of 600-800 kW turbines, eTa4x blades improve performance by 20% over the originally installed blades. With no need for modifications to existing installations, the new blades guarantee an increase in the energy produced for the same amount of wind thanks to (i) a decrease in blade area and (ii) an increase in length (+1m). The process is incentivized as a modernization of obsolete plants. The 5x and 9x models are under development and could be the subject of new future projects for ERG.
	Repowering	The company is aiming to refurbish existing older plants through the repowering process. An increase in capacity of around 260 MW, and an increase in output of around four times the current level are planned. The number of turbines would also be reduced by slightly less than 50%. The renewal of the plants also contributes to extend the plans of incentives that are expiring or have expired (about 500 MW). In this way, of course, the useful life of the plants is also lengthened.
	Wind farms O&M	The operational management and maintenance of the wind farms are performed entirely and internally by ERG. Maintenance activities are carried out during periods of low windiness, making it possible to (i) take advantage of situations when energy production would be impossible and (ii) optimize the production during suitable climatic periods. The integration of maintenance began on 31 st October 2013 with the acquisition of ERG Renew Operations & Maintenance S.r.l., which specializes in the maintenance of wind farms. Activities are carried out through logistics and operations centres near the plants. New logistics centres have been built abroad since 2015, including in Germany (Brunsüttel and Sallgast) and France (Chartres and Amiens).
	Renewables leading (know-how)	The company acquired EnerTAD S.p.A. in 2006, with the aim of building and acquiring wind power generation plants, making ERG the first producer nationwide in chronological terms. Between 2008 and 2015, the company divested 3.3 billion in oil-related assets and reinvested 3.9 billion in renewables-related assets, crowning the company as Italy's leading wind power producer in 2013, with 1087 MW of plant capacity under its belt. Several acquisitions and construction of new plants have contributed to a strong competence and experience in the sector by the company that can boast a considerable know-how.
	Environmental reputation	In 2017, the company exited the oil business, focusing only on renewables. The shift has had a significant effect on the environment by leading to a continuous reduction in environmental impact since 2008.
	Exceptional events management	The company is able to move efficiently in the event of catastrophic and unforeseen events. As was the case in the last year during the COVID pandemic: (i) ERG has been able to optimally manage smart-working (over 70% of office-employees), and thus expand an already existing and integrated reality within the company; (ii) no staff cuts have been made, but rather new hirings; (iii) energy furniture was in line with expectations and it was not affected so much by the pandemic, despite the slight slowdown of plants.
Weaknesses	Natural sources unpredictability	Approximately 62% (as of 31/12/2019) of the company's installed energy capacity is wind power, which among the renewables is the most difficult to predict. Unpredictability can considerably influence ERG's operations. In order to hedge its positions, the group buys an amount of energy which is approximately the same as produced (7160 TWh at 31/12/2019).
	Lack of integration	Unlike many competitors, the company does not deal with the distribution of the energy produced. This could result in lower margins and consequently lower profitability for the company compared to its peers.
Opportunities	Energy gains power	The launch of new "Zero Carbon Cities" can boost the energy demand. The EU is decisively promoting electromobility and Italy aims to increase current incentives to low emission vehicles. Electricity is an attractive low-cost energy source to fuel the transport sector, which is a challenging one in terms of emissions.
	Synergies among RES	Different renewable energy technologies provide synergies in terms of power production. The use of hydropower can neutralize the short-term variability of wind and solar generation. It can provide cost effectiveness and reduce negative performance effects related to power generation volatility. Moreover, combined photovoltaic-wind systems provide higher levels of stability on the grid. The power generation of such a hybrid system is more constant and fluctuates less than each of the two component subsystems.
	Solar diversification	The company is acquiring and building several solar plants to expand and protect itself from wind volatility, and to increase productivity. In 2018, 30 new PV plants were put in place, with an installed capacity of 89 MW (136 GWh of annual production). At the beginning of 2019, ERG acquired 78.5% of a company that manages two photovoltaic power facilities with an overall installed capacity of 51.4 MW.
	Technological efficiency	Power systems must achieve maximum flexibility, based on innovation and efficient technologies. The main challenge with renewable power is that it is variable, and the production profile does not necessarily match the typical demand, making it

		difficult to balance the amount of power on the grid. Short-term, long-term, and stationary storages allow us to stock energy and release it in the form of electricity when it is needed.
	Off-shore wind	Offshore wind is becoming competitive with improvements in the full life cycle of processes. Capacity factors are increasing, boosting margins and reducing total installed and O&M costs. The expanding operations in offshore wind markets in Europe and China between 2010 and 2019 have also reduced risks and uncertainty for investors. Consequently, the interest in the sector has increased and the costs of financing declined.
	Financing perspectives	The growing influence of climate-focused investing (ESG and sustainability-focused funds have grown substantially over the last few years), investments in Renewables coming from the oil business and favourable Government policies represent an opportunity in terms of investments in the overall market.
	UK expansion	Greenfield investments in the UK are expanding and the legal framework represents a support. The reintroduction of onshore wind to the CfD scheme and the UK Government 2050 Net Zero Target are active measures that confirm the strategy.
	Power Purchase Agreements	In recent years, PPA volume has almost tripled, thanks to the ability to facilitate investments but also to reduce business costs. These agreements support investments in new production capacity for which incentives are not currently provided.
Threats	End of incentives	At the moment, incentives are a vital income source for these firms but - since the cost of production of new plants and energy are constantly reducing - they could be deleted or reduced already in the next 3-5 years. RES producers are very close to matching the BEP and so start to be independent from the governments. Italian players are very close to BEP. This could lead to the elimination of dedicated collections and other incentives. However, we consider this event very unlikely looking toward the European Political Agenda.
	Energy prices volatility	Prices for energy are very volatile suffering from many kinds of cyclicity. If the previous are more or less predictable, the production cyclicity can vary a lot. Indeed, lack of wind or sun can reduce outputs and so reduce revenues.
	Succession issues	Since the business is family owned, the generational change could lead to a fragmentation of positions and managerial instability.

Appendix 2.10 - Porter's 5 forces analysis

Threat of new entrants MEDIUM	Oil companies' investments	Non-renewable energy producers are boosting their green investments to face the increased attention towards climate change issues. To enter the renewable energy industry, they could begin investing in already existing companies.
	Know How	Difficult to be created promptly and just with financial investments. Technical know-how is the most important and difficult to achieve, due to the preponderant industrial features of this sector.
	Start-up costs	Renewables market is capital intensive, only affirmed and solid firms can afford such investments. A new established company, for example, should issue a lot of VC money.
	Scalability	RES can obtain economies of scale increasing the number of installations. It is calculated at a learning rate of about 7% for wind and 30% for PV.
Threat from substitute products LOW	Gas, oil and coal	The presence of sustainability goals, especially in Europe, demand for an important reduction from these energy sources. The portion occupied by brown energies is fated to be lower, thanks to the activities and incentives put on by governments.
	Self-production	This method is more developed for the solar power system and it enables subjects to increase their autonomy and to reduce costs. Nonetheless the possibilities to be a menace are very low.
	Biomasses	They are forecasted to grow but anyway we do not expect it to have such importance to be a threat for renewables sources like wind, solar, geothermal and water.
	Nuclear	One over seven of energy produced in Europe comes from the nuclear system, which could represent an important role in the energy transition and to reduce the CO2 emissions. Anyway, from 2004 the nuclear energy produced in Europe has started to decrease. Also, France, which is currently the first producer of nuclear energy in Europe, has planned to reduce its dependency on nuclear energy from 75% to 50% by 2025 ("Renewable energy discount rate survey results", 2018, Grant Thornton).
	Offshore wind	In the EU, the potential of Offshore wind represents more than 30 000 TWh, thanks to its higher efficiency. Anyway, the higher cost and higher difficulties makes the expected growth in Offshore wind lower with respect to Onshore one.
Bargaining power of suppliers MEDIUM	Size and product dependence	The contractual power of suppliers depends mainly on their size and on how much the energy producer is dependent on their products.
	Special products	Suppliers who provide advantageous products are privileged and have a stronger bargaining power. The possibility of reblading, for instance, and thus the improvement of productivity, is strongly linked to the delivery of more efficient blades by suppliers (eTa Blades).
	Joint ventures	The creation of joint ventures between suppliers can increase their power. Vestas and Mitsubishi have strengthened this year their partnership started in 2013.
Bargaining power of buyers LOW	Electricity spot market	In the electricity spot market, energy price is defined by negotiations between bidders and buyers, supervised by an institutional intermediary; therefore, both parts have no power to influence the price.
	Product homogeneity	Considering homogeneity of electricity, no product differentiation policies can be applied. However, it is increasingly common for consumers to choose power supplies from clean energies, but we believe that this choice may be prevalently advantageous to companies involved in the distribution of electricity.
	Feed-in-Premiums (FIPs)	FIPs are tariffs that are integrated into the price of electricity sold on the spot market for a fixed period of time (usually between 15 & 25 years). Such feed-in are present in Italy for wind plants operating before 2013 and for PV plants, as well as partially in France and Germany, where the subsidy system in force is still based on FIPs, which is currently obtained through discount auctions.
	Feed-in-Tariffs (FITs)	FITs are fixed electricity prices that are paid to renewable energy producers. They are very similar to FIPs. FITs are present in France for plants in operation by December 2015 and in Bulgaria.
	Competitive auctions	In recent years there has been a general transition from FIP and FIT schemes to competitive discount auctions, with the aim of providing greater market efficiency and avoiding production overcapacity. The winners have the possibility to build a plant for

		the pre-established capability and will benefit for a fixed period of time (in Italy 20 years) the energy retirement price determined in the auction.
Rivalry among competitors LOW	Dedicated retirement	The production of energy from RES provides the possibility of asking the GSE (<i>“Gestore dei Servizi Energetici”</i> or <i>“Energy Services Operator”</i>) for the retirement of the electricity produced and fed into the grid. The related withdrawal price is not negotiated between the parties, as occurs on the free market, but is defined by the Authority. This mechanism, which allows even small energy producers to join it, reduces dramatically the level of competition in the market.
	Incentives	The European and the National legal frameworks function as support to the business activity of energy companies. Given that 95% of the next investments in the energy sector will be in renewable projects (IEA, “International Energy Agency”; Renewables 2020, Analysis and Forecast to 2025), corporations in the RES industry can exploit the increasing presence of incentives.
	Market concentration	The level of concentration in the Italian market is relatively low on the energy generation side, compared to other EU Member States. Even if large Groups operate in the market, the share of their portfolio related to renewables remains modest.
	Size of competitors	European energy producers have great volumes, operate in international markets and are usually vertically integrated. Italian companies that operate exclusively in the renewable industry are smaller in terms of size, compared to oil companies that represent the majority in the Italian energy market.
	Low marginal costs	Renewables have become the lowest-cost source of new power generation, especially for solar and wind technologies. Up to 2030, the LCOE (Levelized Cost of Energy) of solar PV is expected to fall by 58%, onshore wind by 25% and offshore wind by 55% (“Global Renewables Outlook: Energy Transformation 2050”; International Renewable Energy Agency; Edition 2020). Moreover, according to the Paris Agreement, significant attention is being paid to minimise the costs of the transition towards environmentally friendly sources, in terms of reducing fossil fuels subsidies.

3. Financial Analysis

Appendix 3.1 – Financial Statements

Income statement (mln €)											
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Revenues and other incomes	936.3	1041.8	1064.1	1045.6	1.044.4	1011.0	1090.0	1130.8	1174.0	1221.6	1274.0
<i>Growth %</i>		11.27%	2.14%	-1.74%	-0.12%	-3.19%	7.81%	3.75%	3.82%	4.05%	4.29%
COGS	-412.6	-330.2	-355.8	-327.2	-290.8	-280.4	-298.3	-293.6	-289.0	-284.8	-280.9
<i>% on revenues</i>	44.07%	31.70%	33.44%	31.29%	27.85%	27.74%	27.37%	25.97%	24.62%	23.31%	22.05%
Gross Profit	523.7	711.6	708.3	718.4	753.6	730.6	791.7	837.2	885.0	936.9	993.1
<i>% on revenues</i>	55.93%	68.30%	66.56%	68.71%	72.15%	72.26%	72.63%	74.03%	75.38%	76.69%	77.95%
SG&A	-215.5	-258.3	-250.7	-238.8	-257.7	-222.4	-233.6	-245.2	-257.5	-270.4	-283.9
<i>% on revenues</i>	23.02%	24.79%	23.56%	22.84%	24.67%	22.00%	21.43%	21.69%	21.93%	22.13%	22.28%
EBITDA	308.2	453.3	457.6	479.6	495.9	508.2	558.1	591.9	627.5	666.5	709.2
<i>% on revenues</i>	32.92%	43.51%	43.00%	45.87%	47.48%	50.26%	51.21%	52.35%	53.45%	54.56%	55.67%
D&A and impairment	-163	-253.7	-250.9	-274.1	-306.0	-294.4	-310.2	-327.2	-344.6	-363.2	-383.3
<i>% on revenues</i>	17.41%	24.35%	23.58%	26.21%	29.30%	29.12%	28.46%	28.93%	29.35%	29.73%	30.08%
EBIT	145.2	199.6	206.7	205.5	189.9	213.8	248.0	264.8	282.9	303.3	326.0
<i>% on revenues</i>	15.51%	19.16%	19.42%	19.65%	18.19%	21.14%	22.75%	23.41%	24.10%	24.82%	25.59%
Net financial expenses	-54.7	-83.9	-65.3	-61.4	-137.10	-78.96	-85.13	-88.32	-91.69	-95.41	-99.5
<i>% on revenues</i>	5.84%	8.05%	6.14%	5.87%	13.13%	7.81%	7.81%	7.81%	7.81%	7.81%	7.81%
Net losses from equity investments	-53.7	37.7	-1.2	-0.1	-0.546	-0.506	-0.545	-0.565	-0.587	-0.611	-0.637
<i>% on revenues</i>	5.74%	3.62%	0.11%	0.01%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Profit before taxes	36.8	153.4	140.2	144	52.3	134.31	162.29	175.89	190.67	207.23	225.83
Income taxes	-12.6	-28.7	-33.0	-39.7	-19.5	-32.2	-39.0	-42.2	-45.8	-49.7	-54.2
<i>Tax rate</i>	34.24%	18.71%	23.54%	27.57%	37.34%	24%	24%	24%	24%	24%	24%
Profit from continuing operations	24.2	124.7	107.2	104.3	32.8	102.08	123.34	133.68	144.91	157.50	171.63
Net income from sold assets and liabilities	-0.5	-	99.6	28.4	-	-	-	-	-	-	-
<i>% on revenues</i>	0.05%	-	9.36%	2.72%	-	-	-	-	-	-	-
Net Profit	23.7	124.7	206.8	132.7	32.8	102.08	123.34	133.68	144.91	157.50	171.63
Non-controlling interests	-3.1	-2.4	-	-0.1	-1.218	-1.42	-1.53	-1.58	-1.64	-1.71	-1.78
<i>% on revenues</i>	0.33%	0.23%	0.00%	0.01%	0.12%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
Net Profit for the parent's owners	20.6	122.3	206.8	132.6	31.6	100.66	121.82	132.10	143.26	155.79	169.85

Reclassified balance sheet (mln €)											
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
PP&E	2,054.5	2,360.3	2,181.9	2,288.3	2,257.9	2,060.5	1,916.0	1,821.2	1,741.8	1,648.1	1,539.0
Goodwill	141.1	125.9	125.9	148.3	220.9	220.9	220.9	220.9	220.9	220.9	220.9
Intangibles	845.7	676.6	634.6	782.5	889.8	889.8	889.8	889.8	889.8	889.8	889.8
Other non-current operating assets	398.4	415.0	241.7	261.5	219.1	307.1	307.1	307.1	307.1	307.1	307.1
Financial assets	92.2	108.8	29.4	49.7	22.4	80.5	80.5	80.5	80.5	100.5	100.5
NWC	185.2	152.5	367.8	200.0	142.7	146.3	173.3	201.5	231.9	250.6	269.9
<i>% on revenues</i>	19.78%	14.64%	34.56%	19.13%	13.66%	14.47%	15.90%	17.82%	19.75%	20.51%	21.18%
Inventories	21.2	20.4	20.6	21.6	22.3	20.22	21.80	22.62	23.48	24.43	25.48
Trade Receivables	343.5	293	255.5	251	193.5	212.85	234.14	257.55	283.30	297.47	312.34
Other receivables and current assets	108.8	104.4	358.7	120.8	123.5	114.375	114.38	114.38	114.38	114.38	114.38
Current assets	473.5	417.8	634.8	393.4	339.3	347.45	370.31	394.54	421.16	436.28	452.2
Current liab. and charges provisions	53.9	46.7	53.2	45.6	50.2	49.9	49.9	49.9	49.9	49.9	49.9
Trade payables	162.1	152.7	126.8	92.3	87.8	83.41	79.24	75.28	71.51	67.94	64.54
Other current liabilities	72.3	65.9	87	55.5	58.6	67.86	67.86	67.86	67.86	67.86	67.86
Current liabilities	288.3	265.3	267.0	193.4	196.6	201.2	197.0	193.1	189.3	185.7	182.3
Invested capital (inc. goodwill)	3,717.1	3,839.1	3,581.3	3,730.3	3,752.8	3,705.1	3,587.6	3,521.0	3,472.1	3,417.0	3,327.2
<i>Goodwill as % of inv. cap</i>	3.80%	3.28%	3.52%	3.98%	5.89%	5.96%	6.16%	6.27%	6.36%	6.46%	6.64%
Invested capital (exc. goodwill)	3,576.0	3,713.2	3,455.4	3,582.0	3,531.9	3,484.2	3,366.7	3,300.1	3,251.2	3,196.1	3,106.3
<i>Growth %</i>		3.84%	-6.94%	3.66%	-1.40%	-1.35%	-3.37%	-1.98%	-1.48%	-1.69%	-2.81%
Net Debt*	2,041.5	2,110.1	1,703.8	1,901.0	1,966.6	1,942.2	1,815.9	1,730.2	1,651.0	1,553.2	1,406.5
Net Financial Debt	1,540,7	1,666,0	1,263,4	1,428,7	1,578,3	1,493,0	1,406,7	1,361,0	1,321,9	1,264,0	1,157,3
LT Debt	1,987.8	1,934.1	1,788.7	1,868.2	2,102.8	2,022.8	1,982.8	1,942.8	1,902.8	1,862.8	1,822.8
Other non-current liabilities	500.8	444.1	440.4	472.3	388.4	449.19	409,19	369,19	329,19	289,19	249,19
Cash and cash equivalents	770.6	427.2	813	774.2	653.5	728.42	747.67	726.37	698.6	709.51	749.37
Financial liabilities	323.5	159.1	287.7	334.7	129	198.7	171.6	144.6	117.7	110.8	83.9
Total Equity	1,676.3	1,729.1	1,877.5	1,828.8	1,786.1	1,762.86	1,771.68	1,790.7	1,821.04	1,863.8	1,920.67
Shareholders' equity	1,626	1,729.1	1,877.5	1,828.8	1,774.6	1,762.86	1,771.68	1,790.7	1,821.04	1,863.8	1,920.67
Minority interests	50.3				11,5	0	0	0	0	0	0
Invested capital (inc. goodwill)	3,717.1	3,839.1	3,581.3	3,730.3	3,752.8	3,705.1	3,587.6	3,521.0	3,472.1	3,417.0	3,327.2

* Other non-current liabilities included.

Cash flows statement (mln €)											
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Net income	23.7	124.7	206.8	132.7	32.8	102.08	123.34	133.68	144.91	157.50	171.63
D&A and impairment	163.0	253.7	250.9	274.1	306.0	294.4	310.2	327.2	344.6	363.2	383.3
Net change in provisions	-12.8	-5.5	8.8	-0.7	-4.6	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Other changes and non-monetary items	7.7	-27.8	-88.7	-36.8	17.4	-25.64	-25.64	-25.64	-25.64	-25.64	-25.64
Change in NWC	-7.9	-36.6	-21.2	72.5	-53.6	3.6	27.0	28.2	30.4	18.7	19.3
CF from op. activities	189.5	381.7	399.0	296.8	405.1	364.32	377.87	404.06	430.49	473.44	506.98
Capex	-114.7	-40.9	-64.4	-106	-33.5	-101	-114	-103	-136	-140	-144
<i>Capex/Revenues</i>	12.25%	3.93%	6.05%	10.14%	3.21%	10.03%	10.42%	9.08%	11.55%	11.44%	11.34%
<i>Capex/D&A</i>	70.37%	16.12%	25.67%	38.67%	10.95%	34.45%	36.62%	31.38%	39.34%	38.49%	37.68%
Extraordinary events	4.1	15.7	71.6	292.2	27.4	29.7	29.7	29.7	29.7	29.7	29.7

CF from investing activities	-110.6	-25.2	7.2	186.2	-6.1	-71.7	-83.9	-132.4	-165.3	-169.5	-174.1
Change in Debt	717.1	-512.9	-44.4	-194.5	-189.8	-80	-80	-80	-80	-80	-80
Change in others fin. instruments	-	-	94.2	-	-55	-	-	-	-	-	-
Dividends	-71.4	-142.8	-74.4	-171.1	-112.4	-112.4	-113	-113	-113	-113	-113
Other changes in shareholders' equity	5.2	-6.2	16	-13	-	-	-	-	-	-	-
Extraordinary events	-	-	-	3.4	-7.4	-	-	-	-	-	-
CF from financing activities	650.9	-661.9	-8.6	-375.2	-364.6	-192.4	-193	-193	-193	-193	-193
Net acquisition	-1128.6	-38.2	-11.9	-146.6	-155	-25.28	-81.75	-100	-100	-100	-100
Change in cash	-398.8	-343.6	385.7	-38.8	-120.6	74.92	19.25	-21.30	-27.77	10.92	-39.86
EBIT	145.20	199.60	206.70	205.50	189.95	213.8	248.0	264.8	282.9	303.3	326.0
<i>Tax rate</i>	34.24%	19%	23.54%	27.57%	37.34%	24%	24%	24%	24%	24%	24%
NOPAT	95.48	162.26	158.05	148.84	119.02	162.47	188.45	201.23	215.04	230.47	247.73
FCFF	-992.72	300.26	312.75	242.84	182.92	326.61	276.26	297.55	293.67	335.2	367.27
FCFE	-398.80	-343.55	385.68	-38.78	-120.57	74.92	19.25	-21.30	-27.77	19.92	39.86

Divisional statements (mln €)											
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Wind											
Capacity	1,506	1,720	1,814	1,822	1,929	2,064	2,209	2,363	2,529	2,706	2,895
Revenues	317	423	445	389	414	413	442	473	506	541	579
EBITDA	254	308	316	274	301	297	318	340	364	390	417
<i>% on Revenues</i>	80%	73%	71%	70%	73%	72%	72%	72%	72%	72%	72%
A&D	-134	-163	-160	-159	-169	-165	-177	-189	-202	-216	-232
<i>% on Revenues</i>	42%	39%	36%	41%	41%	40%	40%	40%	40%	40%	40%
EBIT	120	145	156	115	132	132	141	151	162	173	185
<i>% on Revenues</i>	38%	34%	35%	30%	32%	32%	32%	32%	32%	32%	32%
CapEx	95	44	75	146	189	45	154	157	186	185	184
<i>% on Revenues</i>	30%	10%	17%	38%	46%	11%	35%	33%	37%	34%	32%
Solar											
Capacity	-	-	-	90	141	164	190	220	251	286	326
Revenues	-	-	-	38	71	75	87	101	115	132	150
EBITDA	-	-	-	32	63	76	76	88	101	115	131
<i>% on Revenues</i>	-	-	-	84%	89%	87%	87%	87%	87%	87%	87%
A&D	-	-	-	-24	-41	-41	-45	-50	-54	-59	-64
<i>% on Revenues</i>	-	-	-	63%	58%	55%	52%	50%	47%	45%	42%
EBIT	-	-	-	8	22	24	31	38	47	56	67
<i>% on Revenues</i>	-	-	-	21%	31%	33%	35%	38%	40%	43%	45%
CapEx	-	-	-	345	221	69	27	32	36	41	47
<i>% on Revenues</i>	-	-	-	908%	311%	91%	31%	31%	31%	31%	31%
Hydroelectric											
Capacity	527	527	527	527	527	527	527	527	527	527	527
Revenues	11	122	137	194	119	115	137	137	137	137	137
EBITDA	8	84	94	146	87	83	99	99	99	99	99
<i>% on Revenues</i>	73%	69%	69%	75%	73%	72%	72%	72%	72%	72%	72%
A&D	-5	-58	-58	-58	-57	-58	-58	-58	-58	-58	-58
<i>% on Revenues</i>	-45%	-48%	-42%	-30%	-48%	-50%	-42%	-42%	-42%	-42%	-42%
EBIT	3	26	35	88	30	25	41	41	41	41	41
<i>% on Revenues</i>	27%	21%	26%	45%	25%	22%	30%	30%	30%	30%	30%
CapEx	-	4	6	7	6	4	4	4	4	4	4
<i>% on Revenues</i>	-	3%	4%	4%	5%	3%	3%	3%	3%	3%	3%

Thermoelectric											
Capacity	480	480	480	480	480	480	480	480	480	480	480
Revenues	592	479	464	405	418	390	406	402	398	394	390
EBITDA	107	77	78	53	69	62.4	75	64	64	63	62
% on Revenues	18%	16%	17%	13%	17%	16%	16%	16%	16%	16%	16%
A&D	-30	-30	-31	-31	-28	-30	-30	-30	-30	-30	-30
% on Revenues	-5%	-6%	-7%	-8%	-7%	-8%	-7%	-7%	-8%	-8%	-8%
EBIT	78	47	48	22	41	32.4	35	34	34	33	32
% on Revenues	13%	10%	10%	5%	10%	8%	9%	9%	8%	8%	8%
CapEx	9	10	10	8	15	9	9	9	9	9	9
% on Revenues	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%

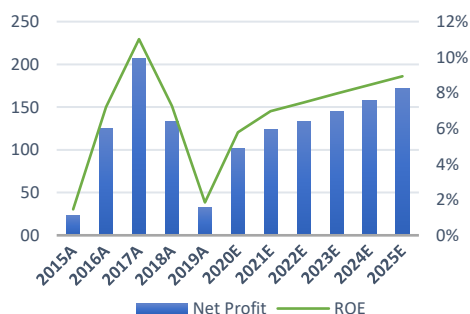
Appendix 3.2 – Financial ratios											
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Operating Margin (%)	15.51%	19.16%	19.42%	19.65%	18.19%	21.14%	22.75%	23.41%	24.10%	24.82%	25.59%
Return on Assets (%)	3.04%	4.40%	4.43%	4.37%	4.13%	4.61%	5.47%	5.96%	6.49%	7.03%	7.65%
Return on Equity (%)	1.46%	7.21%	11.01%	7.26%	1.85%	5.79%	6.96%	7.46%	7.96%	8.45%	8.94%
Return on Invested Capital (%)	3.57%	4.45%	4.85%	4.44%	4.54%	4.90%	5.83%	6.32%	6.83%	7.42%	8.17%
Dividends per Share (Eur)	€ 0.50	€ 0.96	€ 0.50	€ 1.15	€ 0.75	€ 0.75	€ 0.75	€ 0.75	€ 0.75	€ 0.75	€ 0.75
Dividend Payout Ratio (%)	346.60%	116.76%	35.98%	129.03%	356.21%	111.66%	92.76%	85.54%	78.88%	72.53%	66.53%
EBITDA/Interest Expense	5.63	5.40	7.01	7.81	3.62	6.44	6.56	6.70	6.84	6.99	7.13
Interest Coverage Ratio	2.65	2.38	3.17	3.35	1.39	2.71	2.91	3.00	3.09	3.18	3.28
Cash Dividend Coverage Ratio	2.76	2.93	5.65	1.31	4.08	3.21	3.10	3.33	3.54	4.02	4.32
Net Debt/EBITDA	6.62	4.65	3.72	3.96	3.97	3.82	3.25	2.92	2.63	2.33	1.98
LT Debt/EBITDA	6.45	4.27	3.91	3.90	4.24	3.98	3.48	3.15	2.84	2.55	2.29
Net Debt/Total Equity (%)	122%	122%	91%	104%	110%	110%	102%	97%	91%	83%	73%
Total Debt/Equity (%)	173%	153%	136%	149%	148%	156%	149%	142%	133%	127%	117%
Net Debt/Total Capital	0.43	0.47	0.37	0.40	0.43	0.42	0.40	0.39	0.38	0.36	0.33
Total Debt/Total Capital	0.61	0.58	0.55	0.58	0.57	0.59	0.58	0.57	0.56	0.55	0.53
Current Ratio (x)	1.64x	1.57x	2.38x	2.03x	1.73x	1.73x	1.88x	2.04x	2.22x	2.35x	2.48x
Quick Ratio (x)	3.86	2.71x	4.00x	5.30x	4.31x	4.68x	4.98x	5.10x	5.19x	5.42x	5.82x
Dupont Analysis											
Total assets/sharehold. equity	293.73%	262.08%	248.27%	256.89%	259.38%	262.91%	255.82%	247.96%	239.42%	231.37%	221.74%
Capital Turnover Ratio	19.60%	22.99%	22.83%	22.26%	22.69%	21.81%	24.05%	25.47%	26.93%	28.33%	29.91%
EBIT/sales	15.51%	19.16%	19.42%	19.65%	18.19%	21.14%	22.75%	23.41%	24.10%	24.82%	25.59%
Pre-tax profit/EBIT	25.34%	76.85%	67.83%	70.07%	27.54%	62.83%	65.45%	66.43%	67.39%	68.34%	69.28%
Net Income/pre-tax profit	64.40%	81.29%	147.50%	92.15%	62.66%	76.00%	76.00%	76.00%	76.00%	76.00%	76.00%

Appendix 3.3 – Peer ratios (2019)						
	ERG	Encavis	Falck Renewables	Ørsted	Alerion	Peers Average
Operating Margin	18.19%	13.50%	29.60%	-15%	38.70%	16.70%
Return on Assets (%)	4.13%	0.80%	2.80%	3.60%	3.10%	2.58%
Return on Equity (%)	1.85%	3.90%	9,20%	9.30%	14.20%	9.15%
Return on Invested Capital	4.54%	1%	3.80%	5.60%	4.40%	4%
Dividends per Share	€ 0.75	€ 0.26	€ 0.07	10.50 Kr.	€ 0.20	€ 2.76
Dividend Payout Ratio (%)	356%	153.6%	40%	67.8%	47.6%	77.3%
EBITDA Interest Coverage Ratio	3.6	3.1	4.2	0.2	3.2	2.7
Cash Dividend Coverage Ratio	4.1	5.9	5.0	2.8	5,2	4,7
Net Debt/EBITDA	4.0	7.5	3.9	19.0	7.7	9.5
LT Debt/EBITDA	4.2	7.6	4.1	32.3	11.2	13.8
Net Debt/Total Equity (%)	110.1%	286.5%	134.0%	43.0%	251.0%	178.6%

Total Debt/Equity (%)	147.9%	325.2%	158.0%	75.8%	401.5%	240.1%
Net Debt/Total Capital	42.7%	69.8%	51.9%	24.7%	50.0%	49.1%
Total Debt/Total Capital	57.4%	79.2%	61.2%	43.1%	80.1%	65.9%
Current Ratio (x)	1.7x	1.3x	1.5x	2.0x	3.5x	2.1x
Quick Ratio (x)	4.31x	1.3x	1.3x	1.6x	3.5x	1.9x

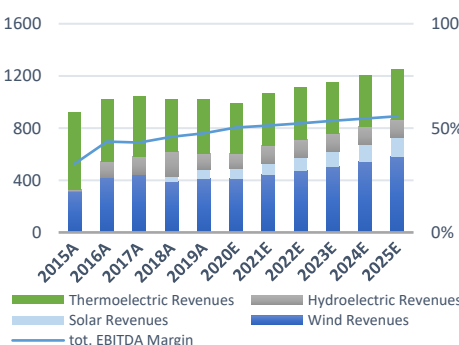
Appendix 3.4 - Net profit (mln €) vs ROE

source: company report, team elaborations



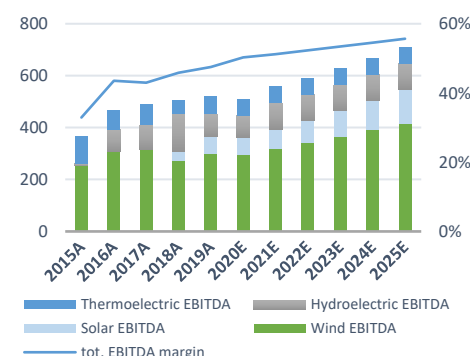
Appendix 3.5 - Sector revenues vs tot. EBITDA mln €

source: company report, team elaborations



Appendix 3.6 - Sector EBITDA vs tot. EBITDA mln €

source: company report, team elaborations



Appendix 3.7 – Beneish M-score

The M-Score is calculated as in *Beneish, Lee Nichols 2013, Financial Analysts Journal* (the lower the indicator, the less likely is the firm to manipulate earnings results):

M-Score = -4.840 + 0.920 Day Sales in Receivable Index + 0.528 Gross Margin Index + 0.404 Asset Quality Index + 0.892 Sales Growth Index + 0.115 Depreciation Index -0.172 SG&A Index + 4.679 Accruals to Total Assets - 0.327 Leverage Index.

(Mln €)	2015	2016	2017	2018	2019
Net sales	936.3	1,041.8	1,064.1	1,045.6	1,044.4
COGS	412.6	330.2	355.8	327.2	290.8
Trade receivables	343.5	293	255.5	251	193.5
Current assets	473.5	417.8	634.8	393.4	339.3
PP&E	2,054.5	2,360.3	2,181.9	2,288.3	2,257.9
Depreciation	163	253.7	250.9	274.1	306.0
Total assets	4,776.0	4,531.6	4,661.3	4,697.9	4,602.9
SG&A	215.5	258.3	250.7	238.8	257.7
Net Income	23.7	124.7	206.8	132.7	32.8
CFO	197.4	418.3	420.2	224.3	458.7
Current liabilities	288.3	265.3	267.0	193.4	196.6
Long-term debt	1,987.8	1,934.1	1,788.7	1,868.2	2,102.8

M-score Analysis	2016	2017	2018	2019	Average
Day Sales in Receivable Index	0.767	0.854	1	0.77	
Gross Margin Index	0.819	1.023	0.969	0.952	
Asset Quality Index	0.852	1.015	1.084	1.03	
Sales Growth Index	1.113	1.021	0.983	0.999	
Depreciation Index	0.765	0.935	0.96	0.884	
SG&A Index	1.077	0.95	0.969	1.08	
Accruals to Total Assets	-0.065	-0.046	-0.019	-0.093	
Leverage Index	1.018	0.909	0.995	1.138	
M-Score	-3.099	-2.762	-2.567	-3.209	-2.9093

Appendix 3.8 - Revenues Forecasts & PUN forward

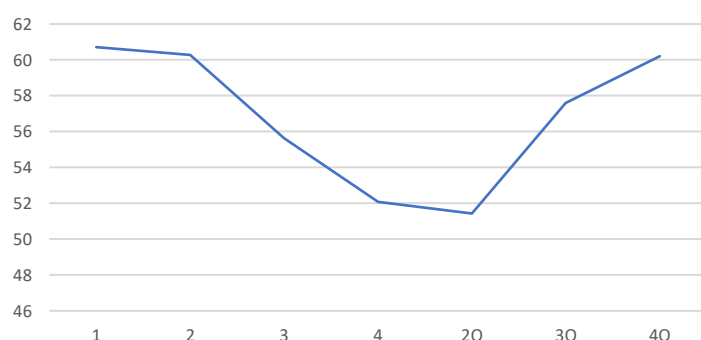
source: Refinitiv, team elaborations

After a reduction in 2020 of 3.19% with respect to 2019, revenues are expected to return to grow, resulting in a CAGR of 3.37% for 2019-2025. Also, the change in the revenues composition will change, moving toward wind and solar, reaching a portion of 45.45% for wind revenues and 11.77% for solar revenues over total ones in 2025. The portion of sectorial revenues on the total of thermoelectric and hydroelectric will slowly reduce, due to their stability, following the present contraction trend. The resulting revenues are the consequence of the growing plan of ERG, which is expected to continue its investment strategy on Wind and Solar, not only organic but also with M&A. Our previsions are also influenced by the current forward prices for the next months and years. After the critical reduction happened in 2020, the PUN is foreseen to come back to its previous values and to remain stable. The latter consideration emerges from an analysis of the Forward PUN prices. The prices presented are useful to analyse again the presence of cyclicity on a yearly basis, due to the different seasons, climate and need of electricity for production. However, considering the numbers presented for 2021, we can derive an approximate average of the yearly PUN, from which we can anticipate a slight rise with respect to pre-Covid period. The increase with respect to 2020 is evident, but it is important to recall the extraordinary feature associated with the latter year.

Appendix 3.9 - Predicted evolution of PUN 2021*

source: Refinitiv, team elaborations

PUN Baseload FW (€ per MWh)	
Spot Jan 2021 average PUN	60.71
Spot 1 Feb	60.27
Forward 1 Mar	55.63
Forward 1 Apr	52.08
Forward 1 May	49.73
Forward 1 Jun	52.46
Forward 2Q 2021	51.43
Forward 3Q 2021	57.6
Forward 4Q 2021	60.2
Yearly Average	56.85

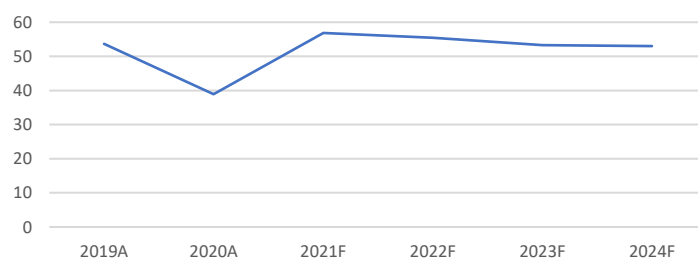


*data updated to 01/02/2021

Appendix 3.10 - Predicted evolution of PUN (2019 – 2024)*

source: Refinitiv, team elaborations

	(€ per MWh)
Spot PUN 2019	55.822
Spot PUN 2020	38.905
Yearly average PUN 2021	56.85
Forward 2022	55.43
Forward 2023	53.25
Forward 2024	52.97



*data updated to 01/02/2021

Appendix 3.11 – M&A historical operations

source: FactSet, team elaborations

Target company	Acquisition date	Stake acquired	Plants location	Business sector
EW Piotrkow Kujawski Sp z o o	23/10/2020	100%	Poland	Wind
Longwing Energy France SA - Wind Farms (3)	24/02/2020	100%	France	Wind
Laszki Wind Sp z o o	05/12/2019	100%	Poland	Wind
Aquila Capital - Wind Farms (3)	19/08/2019	100%	Germany	Wind
Les Moulins de Fruges SAS	25/03/2019	100%	France	Wind
Perseo Srl	11/01/2019	78.5%	Italy	Solar
Parc Eolien De Melier	06/04/2018	100%	France	Wind
Forvei Srl	16/11/2017	100%	Italy	Solar
Windpark Linda GmbH & Co KG	02/11/2017	100%	Germany	Wind
Vent dEst SAS - Epense, Voie	11/10/2017	75%	France	Wind
Evishagaran Wind Farm Ltd	22/06/2017	100%	UK	Wind
Global Wind Pwr - Valee de l'Aa	31/01/2017	100%	France	Wind
Erg Renew Spa	12/10/2016	7.14% (owned: 100%)	Italy	Renewables
Brockaghboy Windfarm Ltd	29/02/2016	100%*	UK	Wind
Impax - Wind Farms (17)	15/10/2015	100%	France	Wind
E ON SE	06/08/2015	100%	Italy	Hydroelectric
Macquarie Grp - Wind Farms(6)	17/06/2015	100%	France	Wind
Farma Wiatrowa Slupia Sp z o o	12/03/2015	100%	Poland	Wind
Hydro Inwestycje Sp z o o	23/01/2015	100%	Poland	Hydroelectric
EW Orneta 2 Sp z o o	15/05/2014	100%	Poland	Wind
ISAB Energy Srl	30/12/2013	49% (owned: 100%)	Italy	Thermoelectric
Undisclosed IVPC Company	26/07/2013	100%	Italy	Wind
Gebeleisis Project	21/06/2013	100%**	Romania	Wind
Hrabrovo Project	21/06/2013	100%**	Bulgaria	Wind
Land Power SRL	23/01/2013	100%**	Romania	Renewables
IP Maestrale Investments Ltd	05/12/2012	100%	UK	Wind
Inergia Spa - Wind Farm (1)	31/07/2012	100%**	Romania	Wind
Raiffeisen - Dobrich Wind Farms	02/02/2012	100%**	Bulgaria	Wind
IVPC Power 3 SpA	23/06/2011	100%	Italy	Wind
IVPC Power 5 Srl	23/07/2010	100%	Italy	Wind
VSF Energies Nouvelles - Wind Farms (2)	12/11/2008	100%	France	Wind
EnerTAD	16/10/2006	51%	France	Wind
Guascor Eolica Italia	12/07/2004	50%**	Italy	Wind

*acquired and then sold, **acquired in joint venture with another company

Appendix 3.12 – Transaction multiples

source: FactSet, team elaborations

Year	EV/EBITDA ERG	EV/EBITDA comp.	Revenues (mln €)	CAGR on rev.	EV/revenues	CAGR on EV/rev
2020	9.48x	18.64x			4.95x	
2019	9.07x	12.84x	1,021.6		4.53x	
2018	9.84x	11.1x	1,023.7		3.90x	
2017	8.72x	10.34x	1,053.6	0.45%	3.79x	19.63%
2016	6.81x	11.42x	1,025.5		3.49x	
2015	7.54x	10.13x	921.0		2.52x	
2014	9.31x	10.56x	998.9		2.02x	
2013	10.26x	11.08x	4,516.3		1.05x	
2012	8.98x	11.7x	5,229.4		0.29x	
2011	12.12x	14.37x	6,770.3	-8.20%	0.41x	7.02%
2010	17.92x	29.85x	5,382.9		0.43x	
2009	11.19x	29.17x	3,875.7		0.38x	
2008	3.65x	6.7x	11,515.6		0.23x	

2007	5.61x	8.79x	10,165.7	0.33x
2006	5.49x	8.48x	9,128.2	0.40x
2005	4.91x	19.97x	8,958.4	0.61x
Mean	8.81x	14.07x	5,040.37	1.83
Median	9.03x	11.26x	4,872.85	0.83

4. Valuation

Appendix 4.1 - WACC computation

Risk-free rate

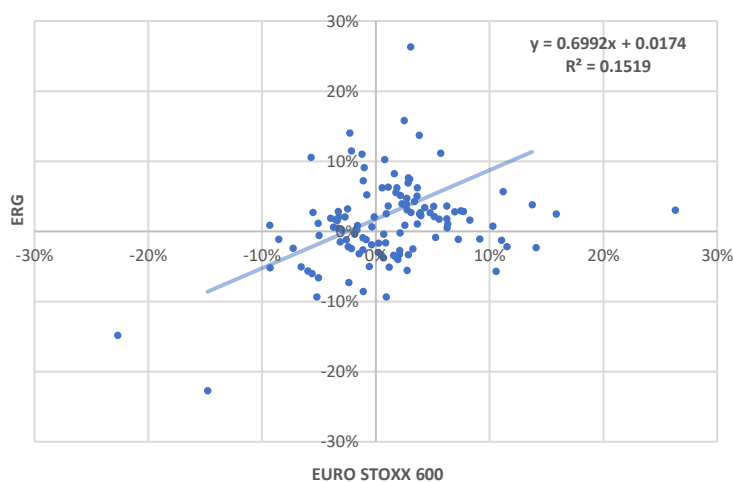
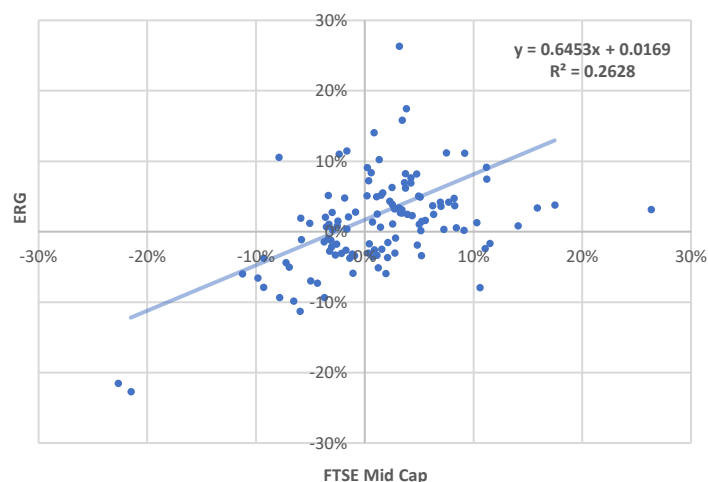
The risk-free rate for Europe is currently negative (-0.54% at the close of January 15, 2021). We have decided to use this rate for the first future period (2021-2025), mainly because we are not confident that rates will rise in the short term. Subsequently, from 2026 to 2029, we used a risk-free value of 1.69%. This was obtained through a mean-reverting process on the monthly rates of the last decade of German bonds (since 2011). For the terminal year (2030), the risk-free rate used is the same. We chose German bonds as a benchmark because we believe they are the most representative, considering the company's European operations.

Equity Risk Premium (ERP)

We calculated the weighted average ERPs ("Country Default Spread and Risk Premiums", A. Damodaran) using as weights the revenues corresponding to each individual country in which the company operates. The ERP and CRP data are updated in July 2020.

	Revenues (mln €)	% Revenues	CRP	ERP
Italy	857	83.9%	3.23%	8.46%
France	71	6.9%	0.73%	5.96%
Germany	46	4.5%	0%	5.23%
Poland	19	1.9%	1.25%	6.48%
Bulgaria	13	1.3%	2.80%	8.03%
Romania	15	1.5%	3.23%	8.46%
UK			0.73%	5.96%
Total	1,022	100%	2.868%	8.1%

Beta



We performed many regressions to calculate the beta and we took into consideration the most significant ones. We analyzed the company's returns for the last 5 years on the FTSE Mid Cap index, to which ERG belongs, and EURO STOXX 600 as an index representing Europe. Both regressions have a good significance and give betas of 0.6453 and 0.6992 respectively. We have subsequently made a weighted average between the two results, considering as weights the portion of revenues for each country (83.9% for Italy and the remainder for foreign countries). The final beta turns out to be 0.654. For the terminal year (2030) we assumed a beta equal to one, assuming that the stable growth company equals the industry in terms of risk and return.

Cost of Equity

Period	Cost of Equity
Stage I (2021E – 2025E)	4.76%
Stage II (2026E – 2029E)	6.99%
Stage III (2030E)	9.79%

We calculated the cost of equity using the CAPM model. Because of the assumed changes in beta and risk-free rate, the value varies from period to period accordingly. The CAPM involves calculating the cost of equity using the formula:

$$K_e = R_f + \beta(ERP)$$

Cost of Debt

The company has two outstanding bonds: XS2229434852 and XS1981060624 with yields of 0.339% and 0.072% respectively. We believe these values are not representative of the cost of debt over the long term. We have therefore carried out a calculation using the ICR (Interest Coverage Ratio) of the company and compared it with the credit rating conversion tables ("Estimate a synthetic rating & cost of debt", A. Damodaran). The company has a BBB rating and consequently the cost of debt is 1.27%, considering a risk-free rate of -0.54% in line with our assumptions for 2020. Due to the Rf rate change, the pre-tax cost of debt turns out to be 3.5% during 2026-2030 period.

EBIT (mln €)	Interest expenses (mln €)	Risk-free rate	ICR	Estimated rating	Estimated default spread	Estimated pre-taxes Kd
213.8	78.96	-0.54%	2.71x	BBB	1.81%	1.27%

Given the 1.27% cost of debt, we used a tax rate of 24%, which is the average of the past 5 years for the company to compute the after-tax cost of debt, that is equal to 0.97% (2.66% in 2026-2030).

Appendix 4.2 – DCF Valuation (mln €)

	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenues	936.3	1,041.8	1,064.1	1,045.6	1,044.4	1,011.0	1,090.0	1,130.8	1,174.0	1,221.6	1,274.0	1,295.52	1,317.42	1,339.68	1,362.32	1,385.48
Growth %		11.3%	2.14%	-1.7%	-0.12%	-3.19%	7.81%	3.75%	3.82%	4.05%	4.29%	1.7%	1.7%	1.7%	1.7%	1.7%
EBIT	145.2	199.6	206.7	205.5	189.95	214	248	265	283	303	326	331.5	337.1	342.8	348.6	354.5
Growth %		37.47%	3.56%	-0.58%	-7.57%	12.55%	15.99%	6.78%	6.86%	7.18%	7.49%	1.7%	1.7%	1.7%	1.7%	1.7%
tax rate	34.24%	19%	23.54%	27.57%	37.34%	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%
NOPAT	95.48	162.26	158.05	148.84	119.02	162.47	188.45	201.23	215.04	230.47	247.73	251.92	256.18	260.51	264.91	269.39
D&A	163	253.7	252.2	274.1	306	294	310	327	345	363	383	350	356	362	368	374
Capex	-114.7	-40.9	-64.4	-106	-33.5	-101	-114	-103	-136	-140	-144	-129.55	-131.64	-133.97	-136.23	-138.53
Net Acquisitions	-1,129	-38.2	-11.9	-146.6	-155	-25.28	-81.75	-100	-100	-100	-100	-116.6	-110.77	-105.23	-99.97	-94.97
Change in NWC	-7.9	-36.6	-21.2	72.5	-53.6	3.6	27.0	28.2	30.4	18.7	19.3	25	25	25	25	25
FCFF	-992.72	300.26	312.75	242.84	182.92	326.61	276.26	297.55	293.67	335.20	367.27	330.56	344.37	358.02	371.54	384.93
WACC							3.49%	3.49%	3.49%	3.49%	3.49%	5.54%	5.54%	5.54%	5.54%	7.40%
TV																6741.27
PV							266.94	277.82	264.95	292.22	309.38	239.19	236.11	232.58	228.69	3,301.41

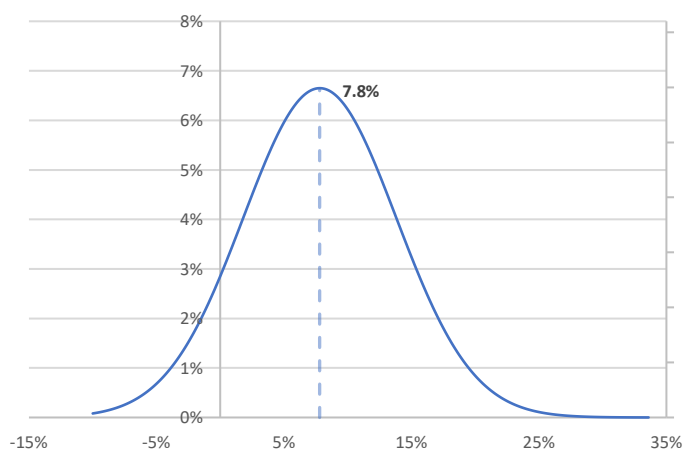
Ent. Value	5,649.3
Financial Debt	1,493
Cash	728.42
Minority interests	0
Market Cap.	4,156.3
# shares	148,869
Price	€ 27.919

Appendix 4.3 – Sensitivity Analysis

We have performed a sensitivity analysis on each of the variables that we will include in the Monte Carlo simulation. The objective is to establish the weight of each variable, within the target price obtained, and to identify the trend of possible fluctuations in the values of these drivers, starting from our expectations for 2021. (i) The company's revenues are fairly stable, growing slightly with a CAGR over of 2.77% (2015-2019). Based on this we have assumed a normal distribution on the company's YoY growth, which oscillates around an average of 7.8%, as expected for the year 2021, with 6% standard deviation. (ii) EBITDA margin is quite good across the renewables sector. For ERG's margin, we have assumed a normal distribution with a mean of 49.66% to 2021 and standard deviation of 2%, considering the slightly positive trend of the past 5 years and future growth prospects. (iii) Since CapEx is a very relevant factor for the company, we analyzed possible negative scenarios in which the capex/revenues variable increases dramatically. The model follows a beta distribution with upper bound 16%, alpha 2% and beta 1.5%. (iv) Similarly, we analyzed the NWC/revenues ratio using a beta distribution with upper bound 45% (15.90% is the value at 2021), alpha 2 and beta 1.5.

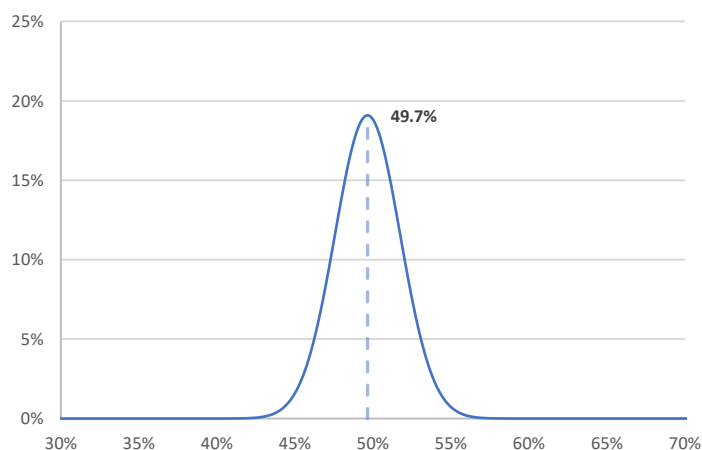
YoY Revenues growth

source: team elaborations



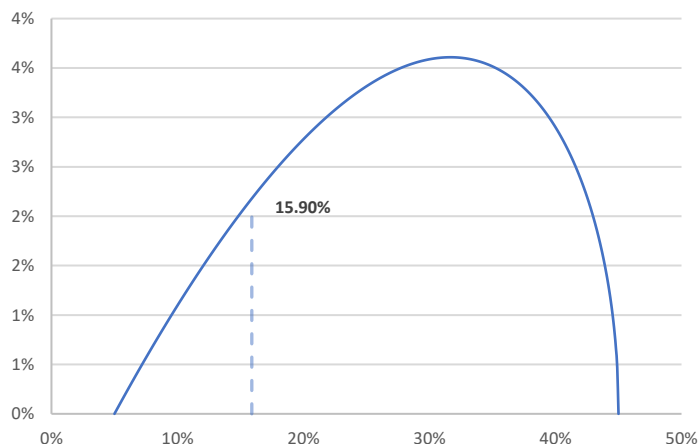
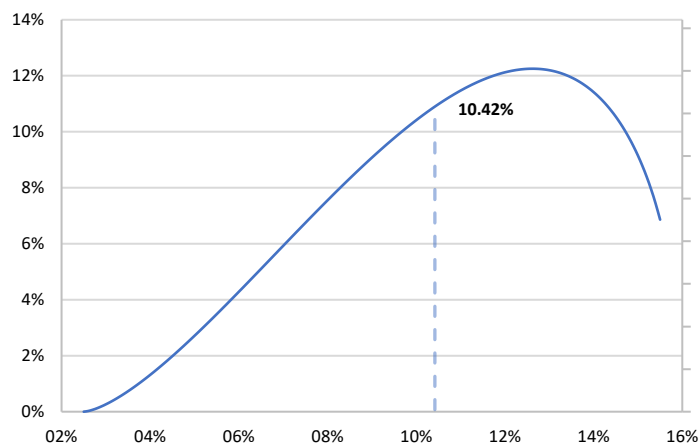
EBITDA margin

source: team elaborations



source: team elaborations

source: team elaborations



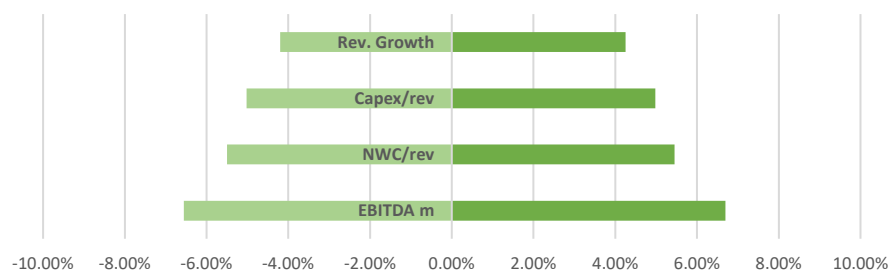
Appendix 4.4 – Montecarlo simulation

We performed a Montecarlo simulation with the previously presented drivers to observe how their variations may affect the target price obtained with the DCF. We set a range of 15% upside and downside as limits for the position variation, compared to the closing price of € 25.1 on 18/01/2021. The simulation supports our HOLD recommendation at 44.77%, 27.32% of the scenarios support BUY while 27.91% support SELL. The most sensitive drivers are EBITDA margin and capex/revenues, which reflect the capital structure of the company. The distribution is approximately symmetric given the skewness value (0.2373).



Tornado Chart

source: team elaborations



Statistics

Trials	10,000
Skewness	0.2373
Min	7.773
Max	49.047
Mean	25.461

Appendix 4.5 – Multiples

Source: FactSet, team elaborations

	2015	2016	2017	2018	2019	Avg. 3 years	Avg. 5 years
ERG							
EV/Sales	4.08x	3.50x	3.78x	4.19x	4.65x	4.21x	4.04x
EV/EBITDA	12.40x	8.04x	8.78x	9.14x	9.79x	9.24x	9.63x
EV/EBIT	26.32x	18.25x	19.44x	21.32x	25.56x	22.11x	22.18x
Dividend Yield	4 %	9 %	3 %	7 %	4 %	5 %	5 %
Dividend per Share (Eur)	€0.50	€0.96	€0.50	€1.15	€0.75	€0.80	€0.77
EV/IC (exc. goodwill)	1.07x	0.98x	1.16x	1.22x	1.37x	1.25x	1.16x
EV/IC (incl. goodwill)	1.03x	0.95x	1.12x	1.17x	1.29x	1.19x	1.11x
Falck Renewables							
EV/Sales	3.70x	3.50x	4.40x	3.90x	5.70x	4.67x	4.24x
EV/EBITDA	7.30x	7.40x	9.80x	7.80x	11.30x	9.63x	8.72x

EV/EBIT	14.20x	16.50x	17.90x	12.70x	19.20x	16.60x	16.10x
Dividend Yield	4.10 %	5.30 %	2.40 %	2.70 %	0.01 %	1.70 %	2.90 %
Dividend per Share (Eur)	€0.05	€0.05	€0.05	€0.06	€0.07	€0.06	€0.06
EV/IC (exc. goodwill)	0.78x	0.66x	0.90x	0.90x	1.34x	1.05x	0.91x
EV/IC (incl. goodwill)	0.78x	0.66x	0.90x	0.90x	1.34x	1.05x	0.91x
Encavis							
EV/Sales	11.70x	13.50x	9.20x	8.40x	10.30x	9.30x	10.62x
EV/EBITDA	15.80x	19.50x	12.40x	10.90x	13.00x	12.10x	14.32x
EV/EBIT	37.83x	47.28x	29.68x	24.44x	29.26x	27.79x	33.70x
Dividend Yield	2.3 %	3.1 %	3.4 %	4.4 %	2.8 %	3.5 %	3.2 %
Dividend per Share (Eur)	€0.18	€0.20	€0.22	€0.24	€0.26	€0.24	€0.22
EV/IC (exc. goodwill)	1.16x	0.94x	0.99x	0.87x	1.11x	0.99x	1.01x
EV/IC (incl. goodwill)	1.15x	0.93x	0.97x	0.86x	1.10x	0.98x	1.00x
Ørsted							
EV/Sales	-	2.4x	2.8x	2.7x	4.6x	3.4x	3.1x
EV/EBITDA	-	10.8x	14.2x	16.2x	18.5x	16.3x	14.9x
EV/EBIT	-	16.4x	31.3x	25.2x	27.9x	28.1x	25.2x
Dividend Yield	-	2.2%	2.7%	2.2%	1.5%	2.1%	2.2%
Dividend per Share (Dkr)	-	6 kr.	9 kr.	9.8 kr.	10.5 kr.	9.8 kr.	8.8 kr.
EV/IC (exc. goodwill)	-	9.2x	10.5x	10.8x	14.8x	12.1x	11.3x
EV/IC (incl. goodwill)	-	9.2x	10.5x	10.8x	14.8x	12.1x	11.3x
Alerion							
EV/Sales	6.90x	6.10x	3.10x	0.80x	4.60x	2.83x	4.30x
EV/EBITDA	13.10x	8.80x	4.30x	1.20x	6.30x	3.93x	6.74x
EV/EBIT	85.40x	21.30x	9.60x	2.40x	12.00x	8.00x	26.14x
Dividend Yield	1.9 %	1.5 %	1.5 %	1.2 %	6.5 %	3.1 %	2.5 %
Dividend per Share (Eur)	€0.05	€0.05	€0.05	€0.03	€0.20	€0.09	€0.08
EV/IC (exc. goodwill)	1.13x	1.12x	0.53x	0.12x	0.40x	0.35x	0.66x
EV/IC (incl. goodwill)	1.13x	1.12x	0.53x	0.12x	0.40x	0.35x	0.66x

Appendix 4.6 – Relative valuation

Source: FactSet, team elaborations

	EV/Sales	Sales 2020E ERG (Mln)	EV derived (Mln)	NFP 2020E (Mln)	# shares (Mln)	Price derived
Average 3 years	5.04x	€1,011	€5,097	€1,493	148.9	€24.2
Median	4.5x	€1,011	€4,549	€1,493	148.9	€20.5
Average 5 years	5.57x	€1,011	€5,632	€1,493	148.9	€27.8
Median	4.6x	€1,011	€4,651	€1,493	148.9	€21.2
	EV/EBITDA	EBITDA 2020E ERG (Mln)	EV derived (Mln)	NFP 2020E (Mln)	# shares (Mln)	Price derived
Average 3 years	10.49x	€499.9	€5,245	€1,493	148.9	€25.2
Median	11.01x	€499.9	€5,549	€1,493	148.9	€27.2
Average 5 years	11.18x	€499.9	€5,587	€1,493	148.9	€27.5
Median	10.90x	€499.9	€5,449	€1,493	148.9	€26.6

Appendix 4.7 - Regressions on comparable multiples

Source: FactSet, team elaborations

We have performed a series of regression to derive EV/Sales and EV/EBITDA for ERG. Our analysis are based on three samples: (i) Sample 1 (from EDP Renovaveis to PannErgy), which contains European Alternative power generation companies; (ii) Sample 2 (from EDP Renovaveis to VERBUND A), which contains sample 1 and other European companies which are classified as utilities; (iii) Sample 3 (whole sample), in which we have sample 2 plus other companies from other parts of the world which are classified as alternative power generation.

$$\frac{EV}{sales} = \frac{\frac{EBIT}{sales}(1-t) - \text{Reinvestment}}{WACC - g}$$

$$\frac{EV}{EBITDA} = \frac{(1-t) - \frac{DA}{EBITDA}(1-t) - \frac{\text{Reinvestment}}{EBITDA}}{WACC - g}$$

Considering the formula above we have considered EBIT/sales as a regressor for EV/sales, and DA/EBITDA. The regressions were run without intercept, because it did not result significant in any of the trials. The results presented below evidence a higher R-squared value for the regressions performed on the Sample 3, therefore we have proceeded on the calculation of the price derived according to those parameters.

Name	Ticker	Country	EV/EBITDA	EBITDA (mln)	DA (mln)	DA/EBITDA	EV/Sales	Sales (Mln)	EBIT (Mln)	EBIT/Sales
EDP Renovaveis	EDPR-PT	Spain	19.76x	1,303.9	597.4	0.458	15.34x	1,79.9	704.9	39%
Audax Renovables	ADX-ES	Spain	18.18x	68.3	20.4	0.298	1.41x	1,041.0	42	4%
Atlantica Sustainable	AY-US	UK	13.2x	641.0	337.7	0.527	9.97x	903.7	363.3	40%
Polenergia	PEP-PL	Poland	9.2x	63.8	22.4	0.351	1.47x	604.3	4.2	7%
Albioma	ABIO-FR	France	13.16x	178.3	77.6	0.435	4.54x	505.7	103.5	20%
Falck Renewables	FKR-IT	Italy	14.07x	187.8	81.0	0.431	7.19x	374.5	110.7	30%
Alerion Cleanpower	ARN-IT	Italy	23.03x	51.5	33.4	0.648	9.34x	70.0	27.1	39%
Scatec	SCATC-NO	Norway	45.3x	143.4	68.2	0.475	26.30x	183.7	94.8	52%
Edisun Power Europe	ESUN-CH	Switzerland	18.48x	9.6	4.1	0.431	15.51x	12.2	5.5	45%
PannErgy	PERGY-HU	Hungary	9.72x	7.1	4.7	0.661	4.54x	17.4	2.6	15%
Iniziativa Bresciane	IB-IT	Italy	13.11x	10.6	7.0	0.663	8.91x	16.2	3.5	22%
Frendy Energy	FDE-IT	Italy	24.13x	0.8	0.7	0.885	9.54x	2.1	0.1	5%
Enel	ENEL-IT	Italy	8.17x	19,092.0	7,123.0	0.373	2.28x	77,366.0	13,345.0	17%
ContourGlobal Plc	GLO-GB	UK	8.69x	529.0	272.5	0.515	3.67x	1,188.5	287.9	24%
Endesa	ELE-ES	Spain	8.33x	3,712.0	1,952.0	0.526	1.71x	19,258.0	2,152.0	11%
Slitevind	SLITE-SE	Sweden	6.55x	6.5	3.8	0.592	8.50x	9.8	3.0	30%
Elia Group	ELI-BE	Belgium	13.49x	1,001.1	408.1	0.408	6.55x	2,242.3	629.2	28%
Iberdrola	IBE-ES	Spain	12.17x	9,808.4	4,112.7	0.419	3.55x	36,437.9	5,898.7	16%
Redes Energeticas	RENE-PT	Portugal	9.73x	432.4	238.2	0.551	6.02x	730.4	196.7	27%
Zespol Elektrowni Patnow	ZEP-PL	Poland	1.44x	55.9	41.9	0.749	0.17x	636.3	10.2	2%
Societatea Nationala	SNN-RO	Romania	3.53x	270.2	137.4	0.508	1.94x	501.0	132.4	26%
Photon Energy	PEN-PL	Netherlands	30.39x	7.9	7.6	0.953	7.61x	29.3	1.1	4%
Red Electrica Corp	REE-ES	Spain	8.90x	1,574.8	550.5	0.350	7.53x	2,007.2	1,049.3	52%
ABO Invest	ABO-DE	Germany	10.45x	25.0	191	0.767	7.51x	33.1	5.6	17%
Drax Group	DRX-GB	UK	5.62x	467.1	228.9	0.490	0.50x	5,360.4	230.1	4%
Fortum Oyj	FORTUM-FI	Finland	15.45x	1,656.0	917.0	0.554	1.00x	5,447.0	1,081.0	20%
VERBUND A	VER-AT	Austria	26.50x	1,147.8	376.7	0.328	8.02x	3,895.0	783.6	20%
Northland Powerx	NPI-CA	Canada	13.67x	834.2	373.2	0.447	8.61x	1,117.1	519.0	46%
Omega Geracao	OMGE3-BR	Brazil	12.90x	123.2	44.8	0.364	8.71x	229.7	80.8	35%
SOLEGREEN	SLGN-IL	Israel	28.10x	4.6	6.0	1.304	17.15x	6.1	0.4	7%
Sunflower Sustainable	SNFL-IL	Israel	6.86x	11.1	3.9	0.354	4.67x	14.8	7.2	48%

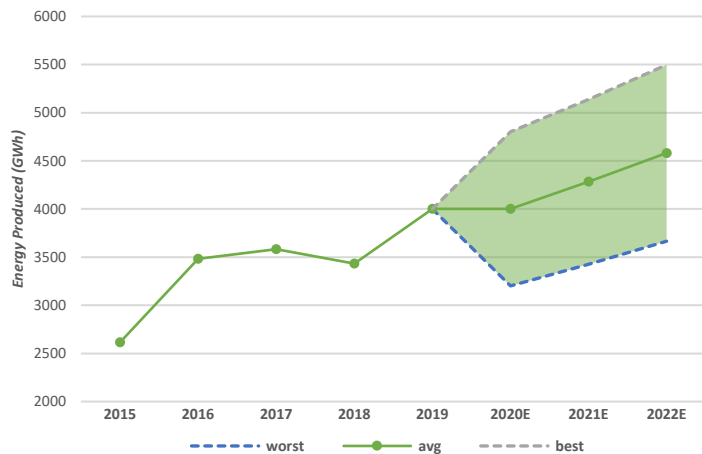
Regression results				Price derivation from regression					
EV/Sales Regression	Sample 1	Sample 2	Sample 3	Sample 3					
Intercept	-	-	-	Coefficient EBIT/Sales		26.3	Coefficient DA/EBITDA	25.01	
EBIT/Sales				EBIT/Sales ERG 2020		0.21x	DA/EBITDA ERG 2020		0.59x
Coefficient	52.16	39.08	26.3	EV/Sales Derived		5.56x	EV/EBITDA Derived		14.73x
P-value	0.011	0	0	Sales ERG 2020 (Mln)		€ 1,011	EBITDA ERG 2020 (Mln)		€ 499.9
R^2	0.494	0.438	0.701	EV derived (Mln)		€ 5,622.94	EV Derived (Mln)		€ 7,363
EV/EBITDA Regression	Sample 1	Sample 2	Sample 3	NFP 2020 (Mln)		€ 1,493	NFP 2020 (Mln)		€ 1,493
Intercept	-	-	-	# of Shares (Mln)		148.87	# of Shares (Mln)		148.87
DA/EBITDA				Price Derived		€ 27.74	Price Derived		€ 39.43
Coefficient	63.09	34.07	25.01						
P-value	0.009	0	0						
R^2	0.476	0.383	0.717						

Appendix 4.8 - Transaction multiples EV/MW					Source: Refinitiv, team elaborations
Buyer	Year	EV (Mln)	MW	EV/MW (Mln per MW)	
Enel Green Power	2018	€ 1,330	410	3.24x	
Falck Renewables	2020	€ 35	30	1.17x	
ERG France	2020	€ 39.6	38	1.04x	
ERG	2011	€ 235.2	112	2.10x	
ERG	2015	€ 27	20	1.35x	
ERG	2015	€ 950	527	1.80x	
ERG	2018	€ 12.4	16.25	0.76x	
ERG	2019	€ 83	34	2.44x	
ERG	2019	€ 52.2	52	1.00x	
ERG	2016	€ 859	636	1.35x	
ERG	2017	€ 336	89	3.78x	
Boralex	2015	€ 298.4	206	1.45x	
Average multiple				1.79x	

5. Investment Risks

Appendix 5.1 – Weather sensitivity

source: www.ecad.eu, en.tutiempo.net, company report, team elaborations



The unpredictability of natural resources represents an operational risk for the group, which tries to mitigate it through: (i) risk management operations; (ii) internalization of key tasks, i.e., forecasting systems; (iii) continuous monitoring of the performance of plants. Particularly, given the consistent portion of Wind relative to the total portfolio and the difficulty to have precise wind forecasts, we decided to analyse the impact of this natural resource risk with a sensitivity analysis. We considered the geographical position covered by ERG wind sites and collected information about wind plants generation (GWh) in the 2015-2019 period, for both Italy and abroad (France, Germany, Poland, Bulgaria, Romania). Then, we linked this data to the average annual wind speed (Km/h) recorded in each country for the same period. Finally, starting from this data, we derived the weighted average annual wind speed for each year, resulting in a 14.5 Km/h average scenario speed in the forecast period (2020-2022). We considered a 11.6 Km/h downward scenario speed and a 17.5 Km/h upward scenario speed. In view of the connection between total installed capacity and final output, we derived the average level of GWh produced given a single MW installed: 1.94 GWh/MW average (2020-2022). In order to derive the best and worst cases, we considered the expected installed capacity in the forecast period and the average level of energy produced, given the annual wind speed recorded (GWh/Kmh). Finally, we derived for each scenario the expected energy produced for the 2020-2022 period.

GWh	2015	2016	2017	2018	2019
Italy	1,910	2,200	2,117	2,012	2,161
Wind (Km/h)	15.5	16.0	17.7	16.9	17.8
France	206	499	491	552	794
Wind (Km/h)	12.7	11.8	11.6	10.7	11.9
Germany	156	240	369	337	465
Wind (Km/h)	10.2	9.2	10.1	9.7	10.3
Poland	68	213	248	219	255
Wind (Km/h)	12.1	11.2	12	10.7	12.7
Bulgaria	74	148	157	138	135
Wind (Km/h)	13.3	12.8	13.6	12.4	12.4
Romania	201	181	201	176	190
Wind (Km/h)	10	9.9	9.3	9.9	10.2
Average Km/h	14.4	14.2	15.0	14.3	14.9

Average Km/h	2020	2021	2022
Downward scenario	11.6	11.6	11.6
Baseline scenario	14.5	14.5	14.5
Upward scenario	17.5	17.5	17.5

	2020	2021	2022
Total Capacity (MW)	2,064	2,209	2,363
Baseline GWh/Kmh	248	248	248
Baseline MW/Kmh	141	152	162
Downward GWh/MW	1.40	1.31	1.22
Baseline GWh/MW	1.94	1.94	1.94
Upward GWh/MW	2.10	1.96	1.83

Energy Produced GWh	2020	2021	2022
Downward scenario	3201.3	3426.2	3665.0
Baseline scenario	4001.6	4282.7	4581.3
Upward scenario	4801.9	5139.3	5497.5

	2015	2016	2017	2018	2019	2020	2021	2022
Total Capacity (MW)	1,506	1,720	1,814	1,822	1,929	2,064	2,209	2,363
Energy Produced (GWh)	2,615	3,481	3,583	3,434	4,000			
Baseline GWh/MW	1.74	2.02	1.98	1.88	2.07	1.94	1.94	1.94
Baseline GWh/Kmh	181.76	245.54	238.27	240.73	268.82	248.34	248.34	248.34
Baseline MW/Kmh	104.68	121.33	120.63	127.73	129.64	141.86	151.83	162.41

6. Environmental, Social and Governance

Appendix 6.1 – ESG Score

source: Refinitiv, company report, ISS ESG Governance Quality Score 2020, MSCI ESG Rating, team elaborations

Metric		ERG	Industry Average*	
GOVERNANCE	Board	What percentage of the board is independent?	58.33%	36.42%
		Are there executives on the compensation/remuneration committee?	NO	-
		Do directors serve on an excessive number of outside boards?	SOME	-
		What is the average attendance in board meetings?	96%	93.2%
		What is the aggregate level of stock ownership of the officers and directors as a percentage of shares outstanding?	63%	34.6%
		What is the percentage of women on the board?	33.33%	23.19%
		How many women are named executive officers at the company?	0	0
	Remuneration	Do directors participate in equity-based plans?	YES	-

	Do non-executive directors participate in performance-related remuneration?	YES	-
	What is the CEO's one-year pay?	3.222.097	1.307.766
	What is the level of disclosure on performance measures for long-term equity and cash awards granted in the last fiscal year?	HIGH	-
Shareholders	Does the company have classes of stock with different voting rights?	NO	-
	How many directors serve on the board?	12	11.4
	What percentage of issued share capital is composed of non-voting shares?	0%	-

*computed using average values of comparables.

	Metric	ERG	Falck Ren.	Ørsted A/S
ENVIRONMENTAL	Does the company have a policy to improve its water efficiency?	✓		
	Does the company have a policy to improve its energy efficiency?	✓	✓	✓
	Does the company have a policy to improve its emissions reduction?	✓	✓	✓
	CO2(tonnes)/energy production(GWh)?	195.72	47.10	97.96
	Has the company set targets to be achieved on emission reduction?	✓	✓	✓
	Waste recycled to total waste?	86.81%	-	98%
	Does the company report to make proactive environmental investments to reduce future risk or increase future opportunities?	✓	✓	✓
SOCIAL	Health & Safety	✓	✓	✓
	Product Safety & Quality			
	Turnover of Employees	5.7%	19%	11.60%
	Human Right Policy	✓	✓	✓
	Controversial			
	Wages Working Conditions Controversies			
	Policy Fair Competition	✓	✓	✓
	Policy Bribery and Corruption	✓	✓	✓

Social Score			
	2019	2018	2017
Period End Date	31/12/2019	31/12/2018	31/12/2017
Social Pillar Score (Weight 32.5%)	A-	A-	B-
Reporting Currency	EUR	EUR	EUR
ESG Report Auditor Name	KPMG	KPMG	--
Workforce (Weight 12.5%)	A+	A+	B+
Policy Employee Health & Safety	TRUE	TRUE	TRUE
Policy Career Development	TRUE	TRUE	TRUE
Policy Diversity and Opportunity	TRUE	TRUE	TRUE
Turnover of Employees	5.70%	5.10%	5.20%
Gender Pay Gap Percentage	--	99.00%	99.03%
Women Employees	20.80%	20.10%	20.90%
Women Managers	28.00%	26.00%	27.00%
Flexible Working Hours	TRUE	TRUE	TRUE
Total Injury Rate Total	2.92	3.09	5.06
Human Rights (Weight 6.7%)	A+	A+	C
Human Rights Policy	TRUE	TRUE	TRUE
Community (Weight 8.3%)	A	A	B-
Policy Fair Competition	TRUE	TRUE	TRUE
Policy Bribery and Corruption	TRUE	TRUE	TRUE
Policy Business Ethics	TRUE	TRUE	TRUE
Policy Community Involvement	TRUE	TRUE	TRUE

Donations / Million in Revenue \$	978.86	976.81	--
Donations Total	€1,000,000.00	€1,000,000.00	--
Corporate Responsibility Awards	TRUE	TRUE	FALSE
Product Responsibility (Weight 5.0%)	D	D+	D+
Policy Customer Health & Safety	FALSE	FALSE	FALSE
Policy Data Privacy	TRUE	TRUE	TRUE
Policy Cyber Security	TRUE	FALSE	FALSE
Policy Responsible Marketing	FALSE	FALSE	FALSE

Appendix 6.2 – Corporate Governance

source: Refinitiv, company report, team elaborations

Board of Directors

Name	Office	Independent	Executive	In charge since	Other Offices	Committees	Background	Salary (€)
Edoardo Garrone	Chairman		✓	16/10/1997	3		• Bachelor's Degree in political sciences, Università degli Studi di Firenze. • BA course, INSEAD Fontainebleau. • Utilities Industry.	860,000
Alessandro Garrone	Vice-Chairman		✓	16/10/1997	1	SC	• Bachelor's degree in economics. • Utilities Industry.	1,203,316
Giovanni Mondini	Vice-Chairman			16/10/1997	1	SC	• High School Diploma, Liceo Scientifico. • Utilities.	363,821
Luca Bettonte	CEO		✓	15/12/2009	-	SC	• Bachelor's degree in Economics, Università degli Studi di Bologna. • Prof. at Bologna and Milan (Cattolica). • Infrastructures Industry. • Utilities Industry.	1,521,899
Massimo Belcredi	director	✓		29/04/2003	1	RCC	• Bachelor's Degree in Economics, Cattolica Milano. • Full Prof. of Corporate Finance in Cattolica, Milano. • Advisory Industry.	115,000
Mara Anna Rita Caverni	director	✓		24/04/2015	2	RCC	• Degree in Economics and Finance. • Audit Industry.	115,000
Barbara Cominelli	director	✓		24/04/2015	1	NCC	• Degree in Business Administration in Bocconi, Milano. • Master's in international management. • ICT, Telco and Energy.	105,000
Marco Costaguta	director			20/04/2012	5	SC	• Degree in Mechanical Engineering in Politecnico di Milano. • MBA at INSEAD (Paris). • Consumer Goods Industry. • Governance Advisory.	130,000
Paolo Francesco Lanzoni	director			29/04/2003	2	NCC	• Degree in Business Studies in LBS. • Intermediation and Financial Industry.	135,000
Silvia Merlo	director	✓		24/04/2015	4	NCC	• Master's degree in business administration in LIUC. • Metal Working Industry.	105,000
Elisabetta Oliveri	director	✓		23/04/2018	3	RCC, SC	• Degree in Electronic Engineering in University of Genova. • Telco Industry. • Food Packaging Industry.	175,000
Mario Paterlini (minority)	director	✓		23/04/2018	1		• Master's in engineering in Université de Technologie de Compiègne. • M&A Industry. • Chemicals Industry. • Gas Industry. • Pharmaceutical Industry.	70,000

*RCC = risk and control committee

*SC = strategic committee

*NCC = nomination and compensation committee