



# Investment case

Zazz Energy of Sweden AB

15 March 2022



# Agenda

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## Equity story

|  |  |
|--|--|
| <b>Zazz Energy has left the starting blocks</b>                            | <p>The Greentech company Zazz Energy of Sweden AB (Zazz Energy or the company) ´s main business model is to finance and own facilities for the production and sale of <b>green electricity</b>. Today, the company have a 1MW-bio-oil plant in Greece that supplies green electricity on a 20-year agreement. The annual revenue from this delivery agreement is estimated at approximately SEK 14 million per year. The buyer is the state-owned electricity company HEDNO. The company´s second 1 MW bio plant (biomass) is under production and is expected to be connected to the electricity grid during the third quarter of 2022.</p>   |
| <b>Recurring revenues and additional income streams</b>                    | <p>With long electricity supply agreements, the company receives <b>recurring income</b>. This type of income is extra valuable because it reduces risk with its predictability. At the new biomass plant, Zazz Energy will recover green heat energy as created at the plant. The heat is intended to be recovered to heat water. The produced hot water can thus contribute with a second revenue stream to an annual value of approximately SEK 3.5 million. As a second residual product, biochar is also created. This is very interesting given the biochar´s ability to bind carbon dioxide as well as the many application areas. Sales of biochar are thus a third revenue stream with a possible annual value of SEK 15 million.</p> |
| <b>Good timing as investors have regained interest in renewable energy</b> | <p>Energy prices are soaring, and in addition to the EU Green Deal, a plan will be developed to phase out Russian gas, oil and coal. We think it is very likely that renewables will also feature prominently in this plan, which should benefit companies like Zazz Energy. The stock market has also regained its interest in the sector. That <b>iShares ETF, Global Clean Energy, has been up 11,1 per cent since mid-February 2022</b>, while the broad Swedish index, OMXSPI, is down -8,7 per cent. <a href="#">See Appendix 1.</a></p>   |
| <b>Good margin potential and large possible upside in the share</b>        | <p>We expect that Zazz Energy can increase its connected capacity to 38 MW by the end of 2031. This would mean annual revenues at levels of SEK 750-800 million. We also expect the EBITDA margin to approach 40 per cent. These are high levels but still lower than many other players with similar business models. Given the uncertainty in the assumed development for the company, we have adjusted the capacity building and thus revenues and costs with probabilities. By combining a DCF model with multiple valuation, a <b>fair value per share of SEK 5.4</b> is calculated for the next 6-12 months.</p>   |

# Introduction to Zazz Energy

**Already started with the production of green electricity and more to come**

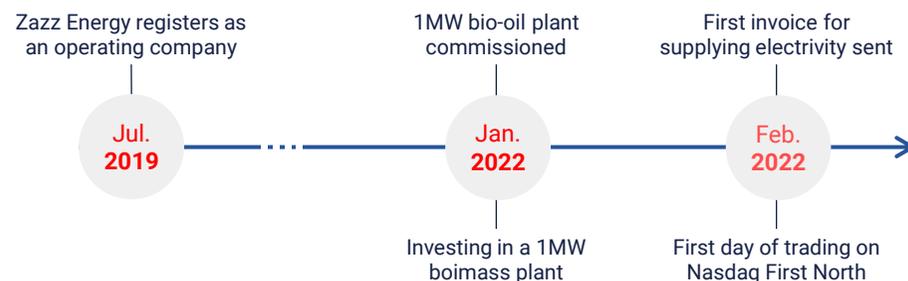
## Greentech-company with recurring revenues

- Zazz Energy is a Greentech company with a two-legged business model:
  - The main business model is to own and, via local partners, operate facilities for the production and sale of green electricity, heat energy and residual products. The focus is on two types of facilities:
    - **Biomass plants** (1-5MW) that generate electricity, heat energy and residual products from pyrolysing biomass out of waste products from, for example, agriculture and forestry.
    - **Bio-Oil plants** (1-5MW) that generate electricity and heat from the combustion of bio-oil which is a residual product from the production of, for example, olive oil or rapeseed oil.
  - This business model generates recurring revenues that constitute predictability in the revenue streams due to:
    - Electricity contracts with long maturities, often 20 years
    - Sale of heat/heated water
    - Sale of biochar and/or wood vinegar
  - As an additional business model, the company acts as a reseller of biomass plants from Chinese Hai Qi Machinery with exclusivity in Greece, Sweden and Norway. With this business, market planning, installation, drift services and maintenance is offered by a local partner.
    - This revenue model pertains an opportunity for bigger (but less predictable) revenues with good margins as well as aftermarket revenues.

## Revenues from February 2022...

- The company was founded in 2019. Despite a short track record, several important milestones have happened.
  - **Jan. 2022:** The company operates an acquired 1MW bio-oil plant in Greece to produce green electricity. The electricity is sold over a 20-year supply contract that provides recurring revenues of approximately SEK 15 million per year.
    - The first invoice for the supply of green electricity to the buyer, state-owned electricity company HEDNO, was sent in February 2022.
  - **Jan. 2022:** Initial investment in a 1MW biomass plant. The plant is in production at the supplier, Hai Qi Machinery
    - Expected deployment is expected in the third quarter of 2022.
    - A 20-year contract for selling electricity is in place with a Greek state-owned electricity company. The contract will generate revenues of around SEK 15 million per year.
  - **Feb 2022:** First day of trading for Zazz Energy on Nasdaq First North.

## Timeline, selected milestones



# Market Potential

## Green Electricity

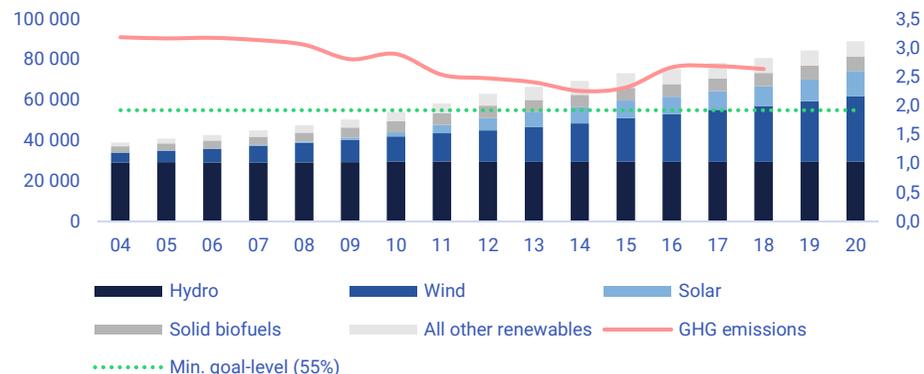
### EU:s Green Deal...a big deal that speaks for continued growth

- The EU and its Member States have adopted a binding commitment to reduce greenhouse gas emissions. This puts pressure on both countries and businesses to act urgently to meet the target.
  - One target is to reduce emissions by 55% from 1990 levels by 2030; a second target is for the EU Member States to be **climate neutral by 2050**.
    - The objectives are to be achieved, among other things, by increasing the use of renewable energy sources. Investments will be co-financed by the EU, the Member States and private investors - totalling at least €1 trillion.
- In conclusion, both public opinion and political action now suggest that energy from renewable sources will continue to grow. The company's timing to the market is therefore considered to be good.

### Green electricity are taking market shares

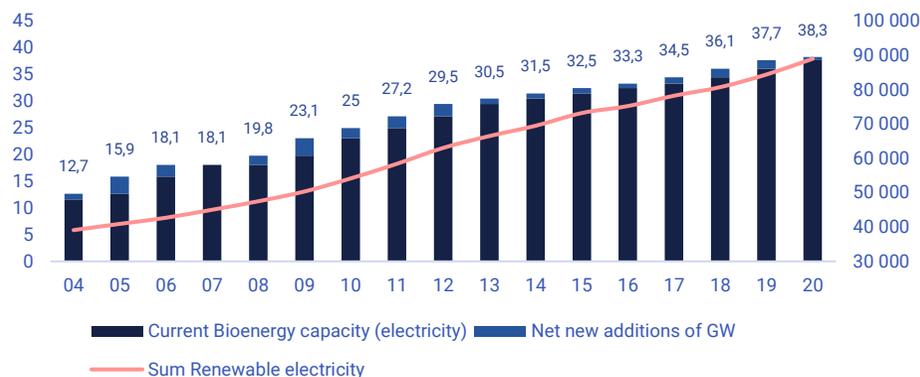
- Bio-energy plants, for example, have grown by an average of 6.0% in terms of production capacity, using biomass to produce green electricity.
- Over the last 15 years (2006-2020), the amount of green electricity fed into the EU, in terms of thousands of tonnes of oil equivalent (ktoe), has increased by 5.3% on average per year. Over the same period, total electricity input has decreased by 0.3% per year, according to Eurostat data.
  - Electricity from biofuels, such as biomass and bio-oil, has grown at an average annual rate of 4.9% over the last 15 years.
- In parallel, green electricity has increased its share of electricity input from 16.9% in 2006 to 37.8% in 2020. The trend is clearly on the rise.

### Green electricity inputs (ktoe) and greenhouse gas emissions (Gt)



Refers to the EU. ktoe = kilo tons of oil equivalent. Gt = gigaton. Source: Eurostat och Climate Watchr

### Bio-installations (GW) and green electricity inputs (ktoe)



Refers to the EU. GW = gigawatt. ktoe = kilo tons of oil equivalent. Source: EAI och Eurostat

# Market Potential

## Biochar and heat

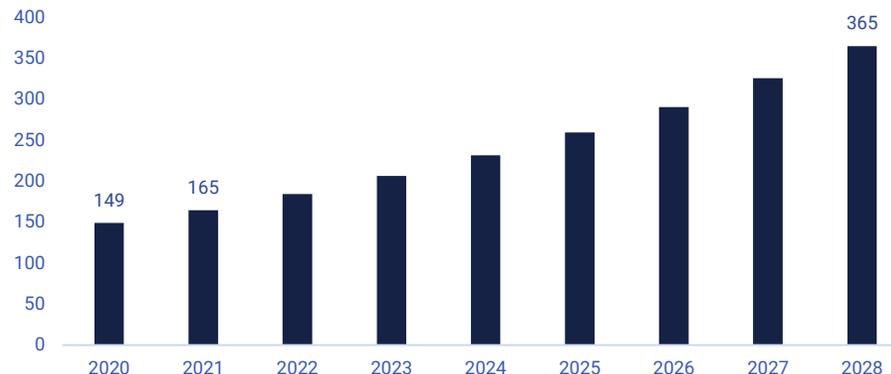
### A bright future for biochar

- Biochar is already big today, especially in Asia. At the same time, much research is currently being done on biochar, which is helpful for various purposes in several areas.
  - Farming: Biochar promotes crop growth and development.
  - Animal keeping: As a feed additive, biochar can improve animal digestion and metabolism.
  - Environment: Biochar acts as a water purifier and can thus improve water quality by binding hazardous substances. Biochar can also be used in agriculture to reduce soil leaching.
  - Climate Benefits: Biochar is classified as a "negative emission technology."
- The market is still in its infancy, and value differs widely between research facilities. However, the common denominator is a high expected growth rate in the upcoming years. As a "**negative emission technology**", biochar has great potential.

### Green heat is increasing

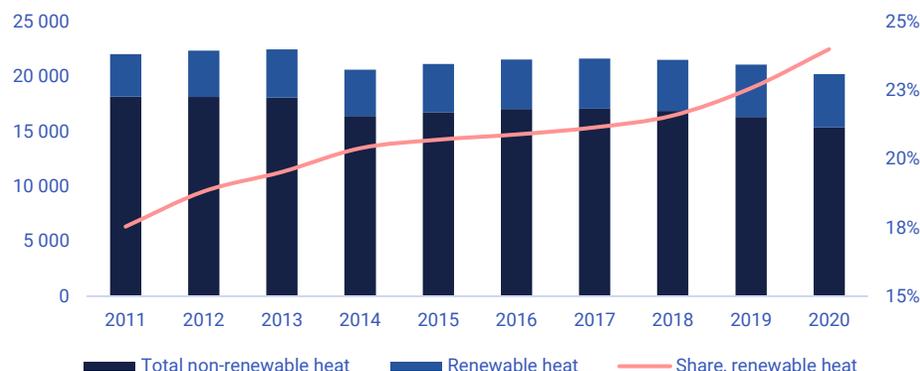
- The total market for heat consumed in the EU has fallen by an average of 1.9% per year. At the same time, the share of heat consumed/produced from renewable sources is increasing.
  - According to the EIA, 4 860 PJ of renewable heat was consumed in the EU in 2020, corresponding to a growth of 1.8%.
  - By 2020, the share of electricity consumed from renewable sources was 24%. This share is expected to increase to almost 28% by 2026. It is also this development that is interesting from the company's perspective.

### Expected market development for biochar (MUSD)



Sources: Fortune Business Insight

### Heat consumed (PJ) and share from renewable sources (%)



Refers to EU. PJ = petajoule (10<sup>15</sup>). Sources: EIA

# Financial development and Carlsquare estimates

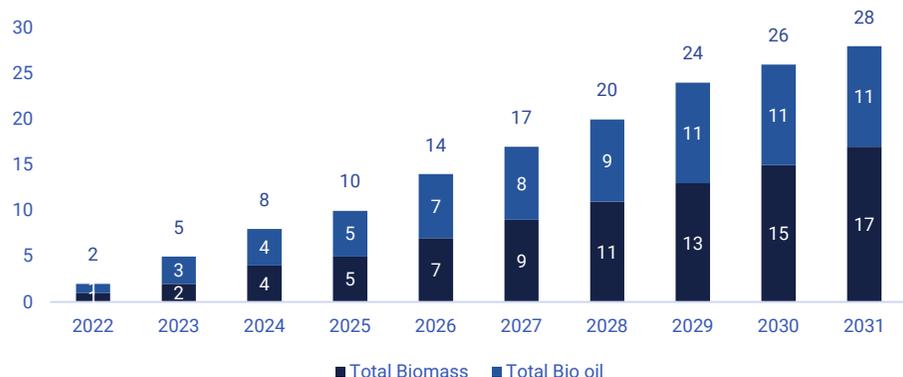
## Two plants installed and connected before the end of the year

### Adopted for development connected capacity and risk adjustment

- Zazz Energy has a limited financial history. To assume future revenues for the company, we have assumed a trend for installed and connected capacity in terms of MW. The assumed **development for capacity is risk-adjusted with probabilities** to reflect uncertainties related to, for example, financing, finding establishable land and time.
  - The company has a 1MW bio-oil plant that is currently generating revenue. The event of this plant coming on stream is therefore not risk-adjusted.
  - In our scenario, ten additional 1MW bio-oil plants will be added in 2023-2031, in line with existing licences.
    - That the installations from the second to 11th bio-oil plant fall out, in line with the assumptions, is adjusted with probabilities falling from 55 per cent for capacity installed in 2023 to 30 per cent for capacity installed in 2026-2029.

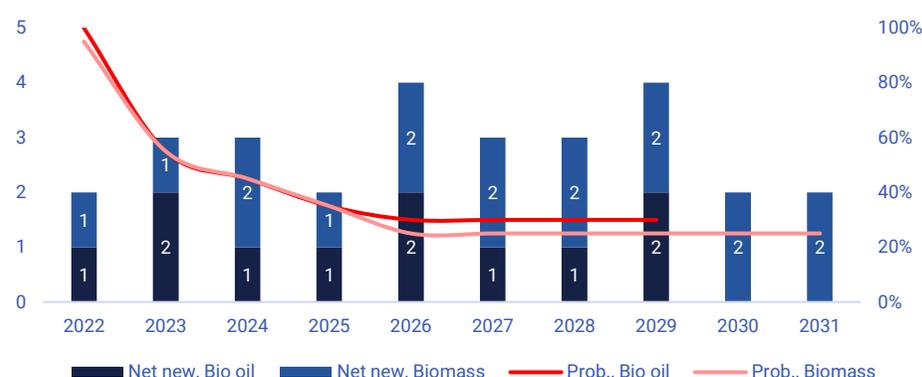
- Today, a 1MW biomass plant is under production/installation. We have assumed that this plant will start generating revenue in mid-September 2022.
  - That the installation of the first biomass plant actually falls out in line with our assumption is risk-adjusted with a probability of 80 per cent.
- From 2023 to 2031, we have assumed that 16 additional 1MW biomass plants will be installed. Five licences are currently in place. Our assumption thus includes more plants than existing licences.
  - That installation of the second to the 17th biomass plant actually falls out, in line with assumptions, is adjusted with probabilities falling from 55 per cent for capacity installed in 2023 to 25 per cent for capacity installed in 2026-2031.

### Installed and connected capacity (MW), end of period



Figures in the graph for installed capacity are not risk adjusted. Source: Carlsquare estimates

### New installed and connected capacity (MW) and probabilities (%)



Figures in the graph for new installed capacity are not risk-adjusted. Source: Carlsquare estimates

# Financial development and Carlsquare estimates

## Significant revenues in 2022 already secured

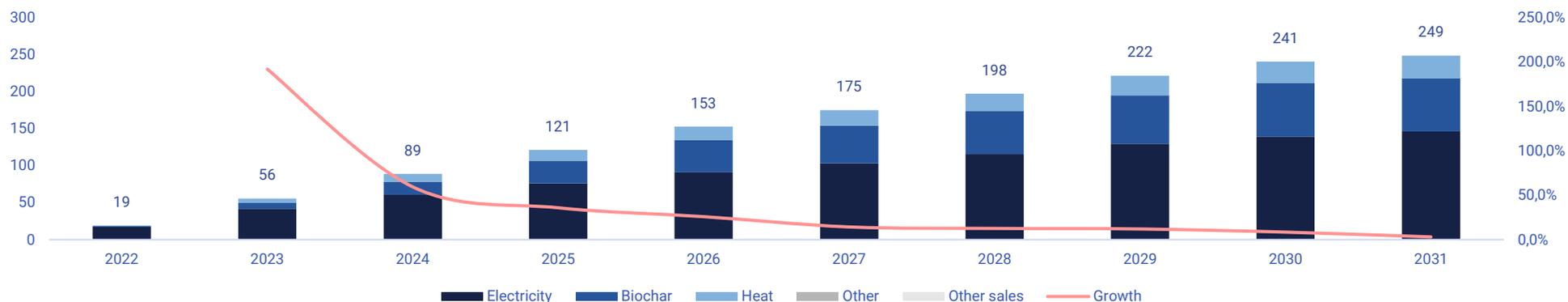
### Revenue from risk-adjusted capacity development, biomass

- We have assumed that biomass plants generate revenue from electricity, the sale of hot water and the sale of biochar.
  - At full operation and output, we have assumed recurring revenues of **SEK 15 million per year** from the sale of green electricity. We have assumed that 100% of the electricity produced is sold on 20-year contracts.
  - At full operation and output, we have assumed that revenues of **SEK 3.5 million per year** can be delivered from full hot water sales. We have assumed that 90-100% of possible produced hot water is sold.
  - At full operation and impact, we have assumed that revenues of **SEK 15 million per year** can be delivered from full sales of biochar. We have assumed that 25-100% of possible biochar produced is sold.
  - We have assumed that operation and power utilization together will result in plants being utilized at 95 per cent of their full capacity level.

### Revenue from risk-adjusted capacity development, bio-oil

- We have assumed that biomass plants generate revenue from electricity and hot water sales.
  - At full operation and output, we have assumed recurring revenues of **SEK 15 million per year** from the sale of green electricity. We have assumed that 100% of the electricity produced is sold on 20-year electricity supply contracts.
  - At full operation and output, we have assumed that revenues of **SEK 3.5 million per year** can be delivered from full hot water sales. We have assumed that 90-100 per cent of possible produced hot water is sold.
    - (The existing bio-oil plant does not produce hot water).
  - We have assumed that operation and power utilization together will result in plants being utilized at 95 per cent of their full capacity level.

### Risk-adjusted income from facilities (SEK million)



Revenue is calculated from risk-adjusted installed and connected capacity. Base case. Source: Carlsquare estimates

# Financial development and Carlsquare estimates

## EBITDA-margins around 38 per cent with upside

### Strong gross margins...

- Zazz Energy has contracted a local subcontractor to operate, service and maintain the plants. At the same time, the direct costs related to the operation of the plant will vary with the product mix. To include this characteristic, we have made assumptions below.
  - For the sale of electricity produced by a bio-oil plant, we expect a gross margin of 40 per cent. For sales of electricity produced by a biomass plant, we expect a gross margin of 35 per cent.
  - We have assumed that hot water provides a high gross margin of 90 per cent.
  - For biochar sales, we expect a gross margin of 50 per cent.
    - The gross margin in our scenario increases from around 31 per cent in 2022 to **around 45 per cent** in 2031, with a changing product mix consisting of a higher share of revenues from biochar and hot water.

### ...and strong EBITDA margin

- Direct costs are the company's largest cost item. In 2022, we expect this cost item to account for just under 60 per cent of total costs. By the end of 2031, this cost item has increased its share to just over 80 per cent, given risk adjustments.
- We have assumed that the companies depreciate their assets straight over 20 years (= guaranteed lifetime). By 2031, depreciation is the second-largest cost item with a share of around 10 per cent, given risk adjustments.
- Personnel costs and other external costs can be kept at a low level, given that the operating costs themselves are included in the direct costs.
  - With an improved gross margin and a "dilution" of group-wide costs, we expect the EBITDA margin to increase from around 21 per cent in 2023 to **around 38 per cent** in 2031, given risk adjustments.

### Profit after direct costs (MSEK) and gross margin (%)



Dir. costs are risk-adjusted with the same probabilities. Base case. Source: Carlsquare estimates

### EBITDA (MSEK) and EBITDA margin (%)



Dir. costs are risk-adjusted with the same probabilities. Base case. Source: Carlsquare estimates

# Valuation

## Good upside-potential in the stock

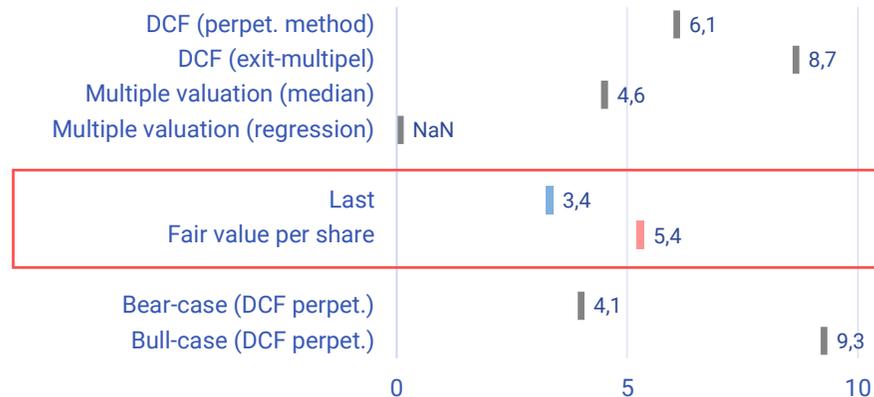
### Fair value in a base-case scenario

- To calculate a justified value for Zazz Energy, we have combined a DCF model with a multiple valuation.
  - The multiple valuation, with a risk-adjusted forecast for sales in 2022, gives a value of SEK 4.6 per share. The peer group's median EV/Sales multiple for 2022 is 7.9x. The peer group consists of companies whose business is based on owning and operating renewable energy production and sales facilities. [See appendix 2.](#)
  - The DCF model, with risk-adjusted assumptions, yields a value of SEK 6.1 per share. The discount rate used is 13.5 per cent.
    - By combining the values from the two applied models into an average, a **fair value per share of SEK 5.4** is calculated for the next 6-12 months. This corresponds to a substantial upside to yesterday's closing price of SEK 3.4.

### Valuation (SEK/share) after full funding and dilution, base

|   |            |
|---|------------|
| Multiples valuation                               | 4,4        |
| DCF-Valuation                                     | 6,0        |
| <b>Value per share</b>                            | <b>5,2</b> |
| Potential up-/downside                            | 63%        |
| Outstanding shares (number in millions)           | 48,4       |
| <b>Equity Value (MSEK)</b>                        | <b>253</b> |
| Cash (MSEK)                                       | 8          |
| Debt (MSEK)                                       | 0          |
| Net present value, Cash from share issues (MSEK)* | 60         |
| <b>EV (MSEK)</b>                                  | <b>186</b> |

### Valuation range (SEK/share) after full funding and dilution



Source: Carlsquare estimates

### Implicit valuation, median ref.group and current, base

|                             | 2022P | 2023P | 2024P | 2025P |
|-----------------------------|-------|-------|-------|-------|
| EV/Sales                    | 9,8x  | 3,4x  | 2,1x  | 1,5x  |
| EV/EBITDA                   | NM    | 16,1x | 7,3x  | 4,7x  |
| EV/EBIT                     | NM    | 21,4x | 8,9x  | 5,5x  |
| Median ref.group, EV/Sales  | 7,9x  |       |       |       |
| Median ref.group, EV/EBITDA | 13,5x |       |       |       |
| Current, ZAZZ B, EV/Sales   | 6,5x  |       |       |       |
| Current, ZAZZ B, EV/EBITDA  | NM    |       |       |       |

Source: S&P Capital IQ and Carlsquare estimates

\*In addition to fully subscribed outstanding warrants, we have assumed a share issue of SEK 30m in 2023 at a price of SEK 3,5 per new share.

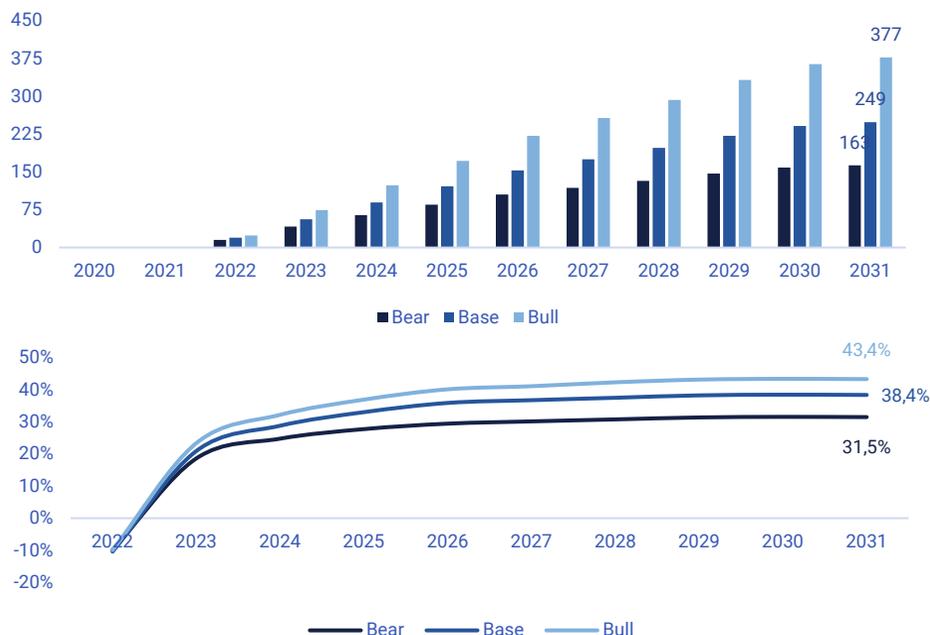
# Valuation

## Sensitivity analysis

### Valuation (SEK): base case, fully diluted

- To reflect uncertainty, we have created a cautious Bear scenario and a more optimistic Bull scenario. The three different scenarios have different developments for revenues and margins.
  - **Bear:** Our DCF model calculates a value of SEK 4.1 per share.
  - **Bull:** Our DCF model calculates a value of SEK 9.3 per share.

### Revenues (SEKm) and EBITDA margins (%) in three scenarios



Source: Carlsquare estimates

### Uncertainties

- Zazz Energy is exposed to risks and moments of uncertainty. As mentioned earlier, we have accounted for these uncertainties by risk-adjusting capacity developments (and indirect revenues and costs) with the probabilities that our forecasts actually materialize.
- Below are some of the risks to which the company is exposed to:
  - To finance future expected growth. In order for the company to install the assumed capacity (28 MW before risk adjustment) throughout the forecast period, there is a capital requirement of just over SEK 600 million. The company has warrants that could strengthen its cash position by approximately SEK 36 million before related costs. However, financing is not secured.
  - We have assumed that the company can add a new bio-oil or biomass plant every third quarter. The installation time for each plant may be both shorter and longer.
  - We expect the company to be able to find suitable sites and sell both hot water and biochar. These assumptions contain a high degree of uncertainty.
  - The sale of biochar involves an additional dimension of uncertainty.
    - The high-volume market is relatively immature.
    - Today, no infrastructure and processes are in place at the new biochar sales facility. However, the company is working on several options.
  - The company's financial history is short. Our assumptions about margins may therefore be subject to a higher degree of uncertainty than if the business had been in operation for a longer period.

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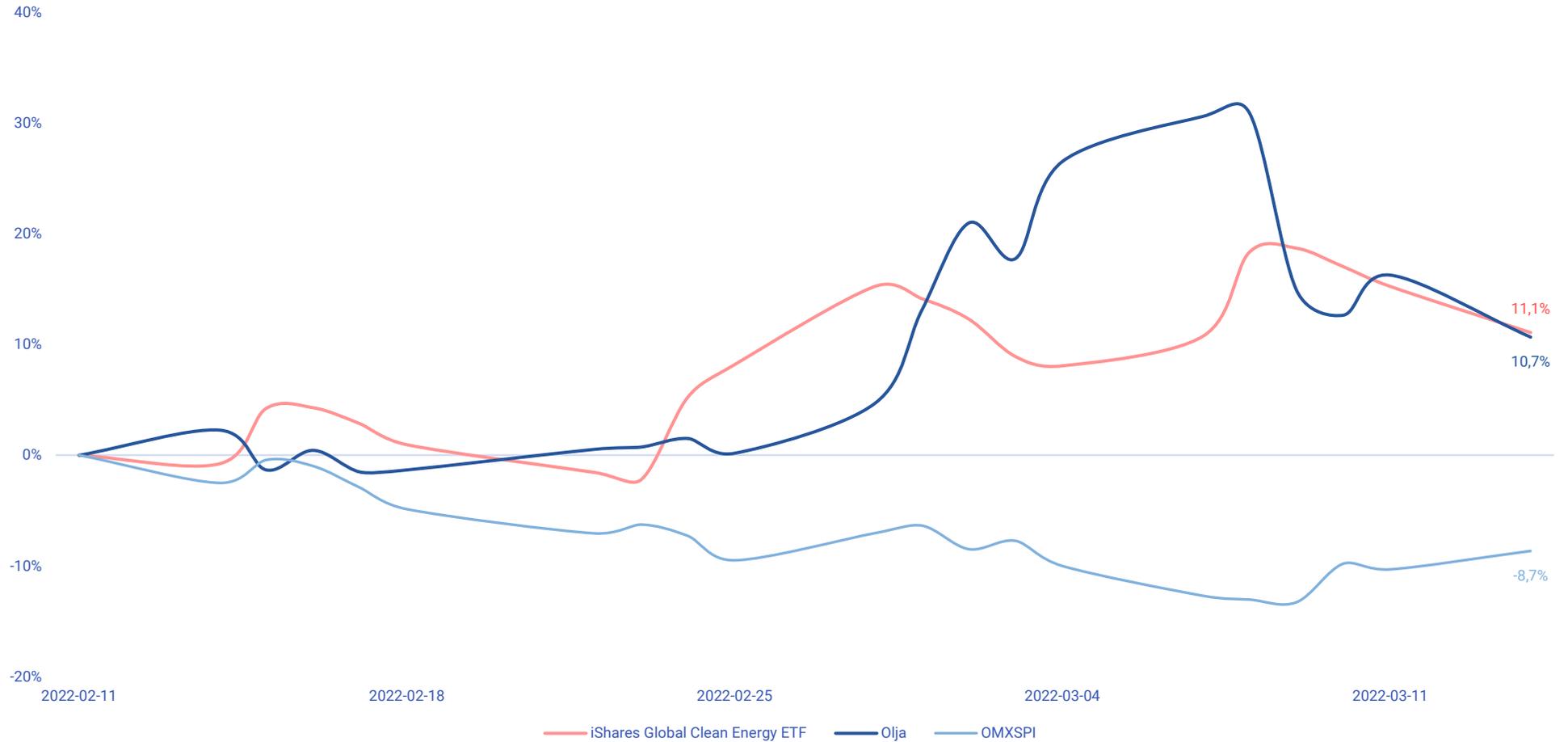
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The analysts Markus Augustsson, Fredrik Nilsson, and Lars Johanssen Öh do not own and may not own shares in the analyzed Company.

# Appendix 1

Performance, Feb 11, 2022 to Mar 14, 2022: iShares Global Clean Energy ETF, Oil and OMXSPI. Index, 2022-02-10 = 0%



Source: S&P Capital IQ and Carlsquare

## Appendix 2

### Multiple-valuation

|  | HQ         | Mcap (MSEK)   | CAGR, 2021-2023 | μEBIT-marg., 2021-2023 | EV/Sales, 2022 |
|--|------------|---------------|-----------------|------------------------|----------------|
| Brookfield Renewable Partners L.P.                       | BM         | 181 510       | 11%             | 16%                    | 11,3x          |
| Northland Power Inc.                                     | CA         | 69 240        | 5%              | 42%                    | 7,8x           |
| Greencoat UK Wind PLC                                    | GB         | 45 525        | NaN             | 92%                    | 9,8x           |
| Public Power Corporation S.A.                            | GR         | 30 155        | 3%              | 5%                     | 1,3x           |
| Boralex Inc.   | CA         | 29 857        | 9%              | 34%                    | 10,2x          |
| Advanced Soltech Sweden AB (publ)                        | SE         | 1 549         | -100%           | 47%                    | 8,0x           |
| Alternus Energy Group plc                                | IE         | 699           | NaN             | 55%                    | 2,6x           |
| Good Energy Group PLC                                    | GB         | 654           | 20%             | 2%                     | 0,5x           |
| <b>Median</b>  |            | <b>37 840</b> | <b>7%</b>       | <b>38%</b>             | <b>7,9x</b>    |
| Average  |            | 59 639        | -14%            | 40%                    | 6,4x           |
| <hr/>  |            |               |                 |                        |                |
| Discount   | 0%         |               |                 |                        |                |
| Used EV/Sales-multiple                                   | 7,9x       |               |                 |                        |                |
| Expected sales, 2022                                     | 19         |               |                 |                        |                |
| <b>Enterprise value</b>                                  | <b>151</b> |               |                 |                        |                |
| Cash   | 8          |               |                 |                        |                |
| Cash from share issues                                   | 60         |               |                 |                        |                |
| <b>Equity value after financing</b>                      | <b>218</b> |               |                 |                        |                |
| Outstanding shares after financing and dilution, mill.   | 48         |               |                 |                        |                |
| <b>Value per share after financing and dilution, SEK</b> | <b>4,6</b> |               |                 |                        |                |

Source: S&P Capital IQ and Carlsquare estimates



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