



# Q4 2022 and 2022 Results

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**Photon Energy N.V.**

16 February 2023

Leeton, Australia (14.6 MWp)

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**Photon Energy Group**

**Business Model**  
**Strategy**  
**Financials**  
**Outlook 2023**  
**Q&As**

Lord Howe Island, Australia (1.3 MWp / 3.7 MWh)



# Business Model

Strategy

Financials

Outlook 2023

Q&As

Slavkov, Czech Republic (1.2 MWp)

# About Us

We are dedicated to ensuring that everyone has access to clean energy and water

## Photon Energy Group



Founded in  
**2008**



Headquartered in  
**Amsterdam**



**280+**  
Employees



Active in  
**10+ countries**



**Shares traded**  
in PL, CZ and DE



**3 x BUY**  
PT: EUR 3.12 - 4.40



**Sustainability**  
Rating\*

## Solar Business Line

(Current core activity and strategic area of development)



**900+ MWp**  
PV project pipeline



**120+ MWp**  
constructed



**+31.5 MWp**  
under  
construction



**91.9 MWp**  
proprietary portfolio



**121.6 GWh**  
produced in 2022



**~ 380 MWp**  
O&M portfolio

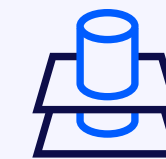


**~ 290 MW**  
assets aggregated  
**~ 134 MW + 157 MW**  
capacity market

LERTA:  
New Energy  
Division

## Water Business Line

(Strategic area of development)



**PFAS\*\***  
patent pending

\* Rating report can be found under <https://www.photonenergy.com/en/photon-energy-group/our-esg-commitments.html>

\*\* Per- and polyfluoroalkyl substances

# Our Global Presence

## Focus on Europe and Australia

### Project development

- ▶ Project pipeline with a combined capacity of 900+ MWp
- ▶ Focus on Hungary, Poland, Romania and Australia

### Electricity generation (91.9 MWp)

- ▶ 11 proprietary power plants in the Czechia (15.0 MWp), 11 in Slovakia (10.5 MWp), 63 in Hungary (51.8 MWp) and 3 in Australia (14.6 MWp)






### O&M (~380 MWp)

- ▶ Full Operations and Maintenance services in Czechia, Slovakia, Romania, Hungary and Australia (~330 MWp)
- ▶ Specialised technical services for PV inverters (~50 MWp)

### New Energy Division

- ▶ Energy trading licenses in 6 countries (Poland, Hungary, Czechia, Romania, Slovakia and Serbia)
- ▶ 290 MW of renewable assets aggregated in Europe, 134 MW of capacity contracted for 2023 and 157 MW for 2027 in Poland.



-  Power Plants Owned by Photon Energy Group
-  O&M Services for Power Plants
-  Inverter Maintenance Services
-  Energy Trading License
-  Photon Energy Group Offices



Business Model

**Strategy**

Financials

Outlook 2023

Q&As

Sydney, Australia (100 kWp)

# Lerta – New Energy Division

We have completed the acquisition of the Polish company to **forward integrate into the energy value chain** in CEE and beyond.

## About the transaction

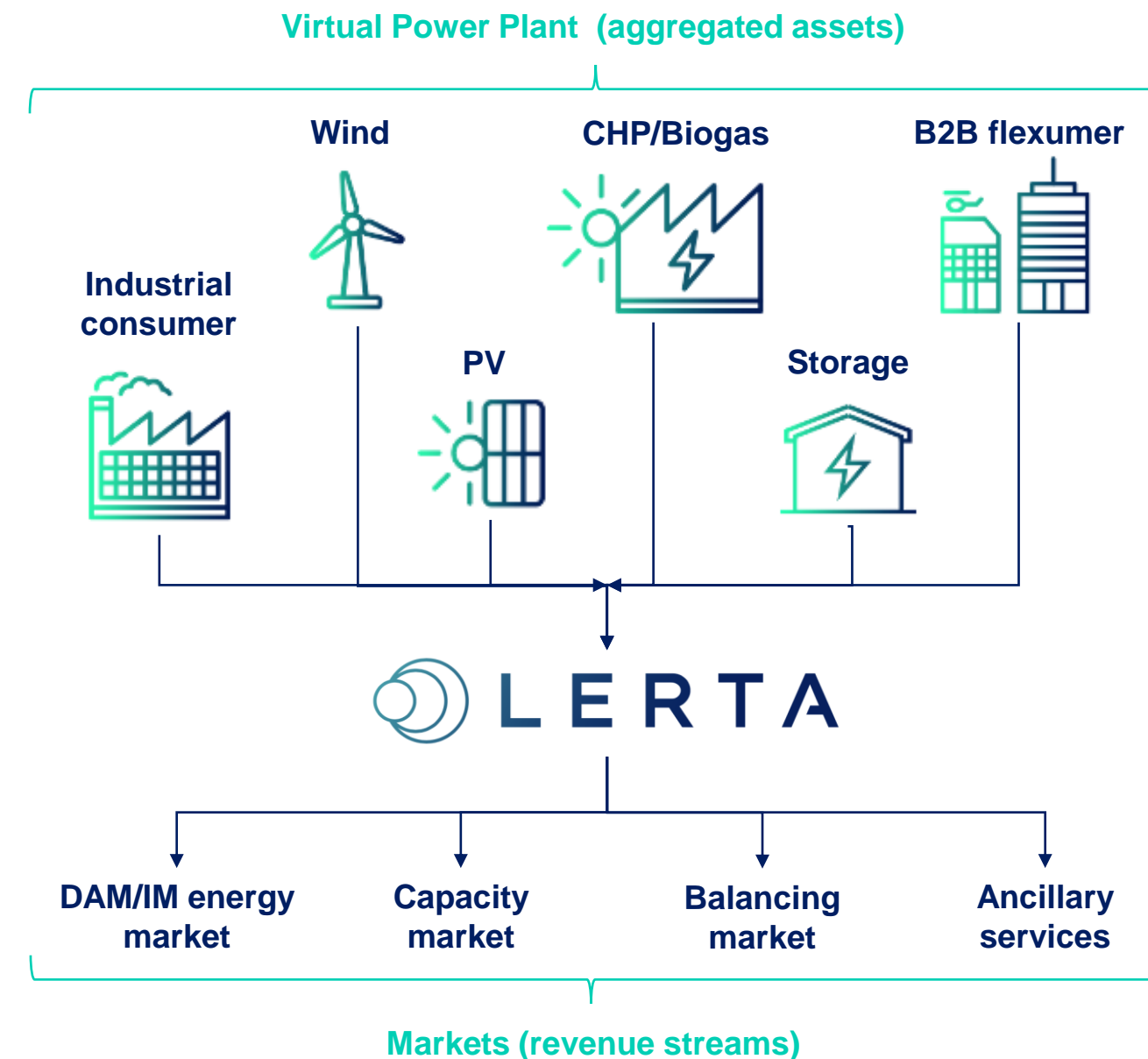
- ▶ Photon Energy increased its stake from 24% to a controlling interest of 85.6% as of 31.12.2022 and to 100% on 1 February 2023 **keeping the founders on board.**
- ▶ Lerta’s capabilities will help Photon Energy to better **access the electricity markets** with its own assets and beyond in the future.
- ▶ Lerta’s experience will foster future **electricity trading, capacity market services** and **C&I business** within Photon Energy Group.



## About Lerta

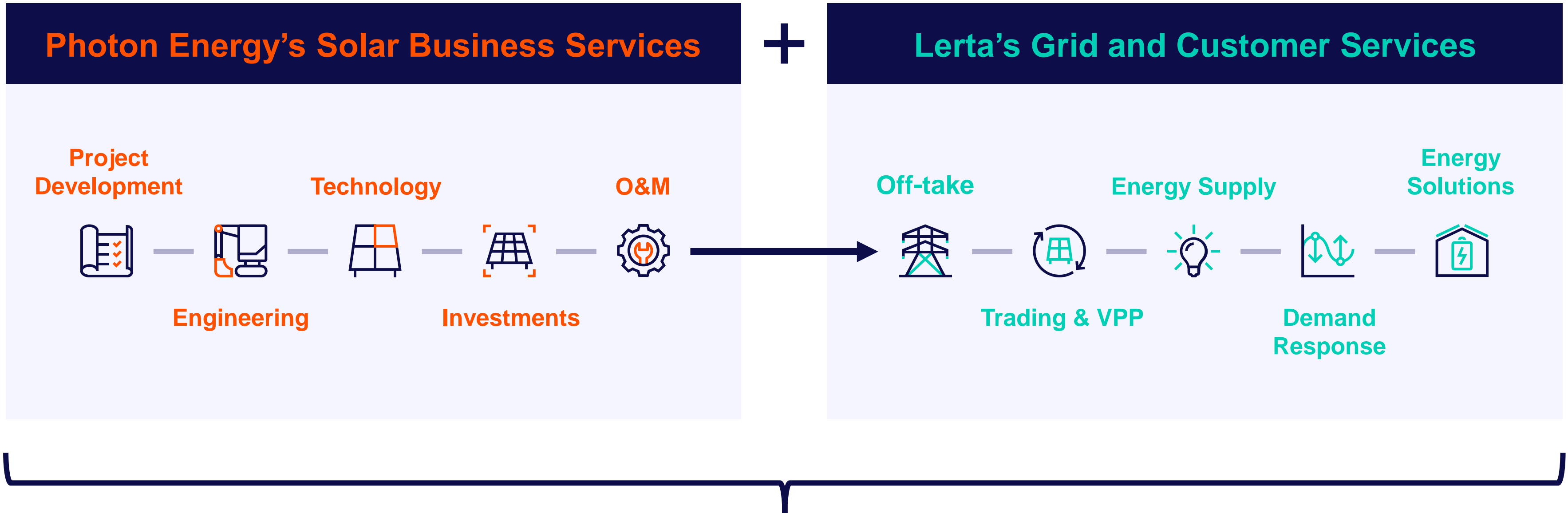


- ▶ Lerta has energy **trading licenses in six European markets**, aggregates assets using Virtual Power Plant technology (approx. 290 MW under management), provide grid services including balancing, demand side response and capacity market.





# Expansion of Photon Energy's Business Model



**The fusion of physical & digital energy to create a customer-centric renewable energy utility.**



**Business Model  
Strategy**

**Financials**

**Outlook 2023**

**Q&As**

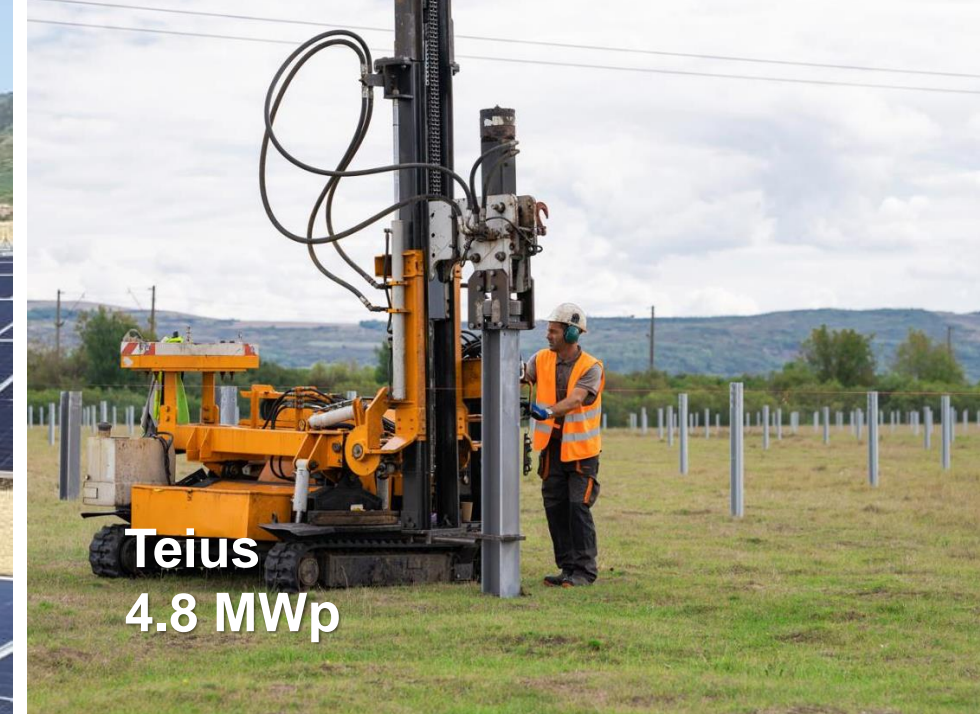
Aiud, Romania (4.7 MWp)

# Highlights 2022

- ▶ **Switch of Czech portfolio** to market-linked “**Green Bonus**” support scheme as of January and **switch of 43.5 MWp of our Hungarian PV portfolio** to merchant electricity sales as of April.
- ▶ **Commissioning of a 1.4 MWp** power plant in Tolna, **Hungary** and **construction start** of our first 8 power plants in **Romania**, with a combined capacity of **31.5 MWp**.
- ▶ Our share received three ‘**buy**’ **recommendations** from research houses AlsterResearch (Germany), WOOD & Company (Czech Republic) and IPOPEMA (Poland), respectively.
- ▶ **EUR 28.1 million long-term refinancing** secured for our Czech portfolio and **tap** of 6.50% Green EUR Bond 2021/2027 by **EUR 22.5 million** to EUR 77.5 million in Q2 and Q4.
- ▶ **Repayment** of our 7.75% corporate bond 2017/2022 on 27 October 2022.
- ▶ Acquisition of a **9.8 MWp** and **10 MWh solar & battery storage project** in Australia.
- ▶ **Increase of investment into LERTA** to a 100% ownership.



**Siria**  
5.7 MWp



**Teius**  
4.8 MWp



**Săhăteni**  
7.1 MWp



**Aiud**  
4.7 MWp



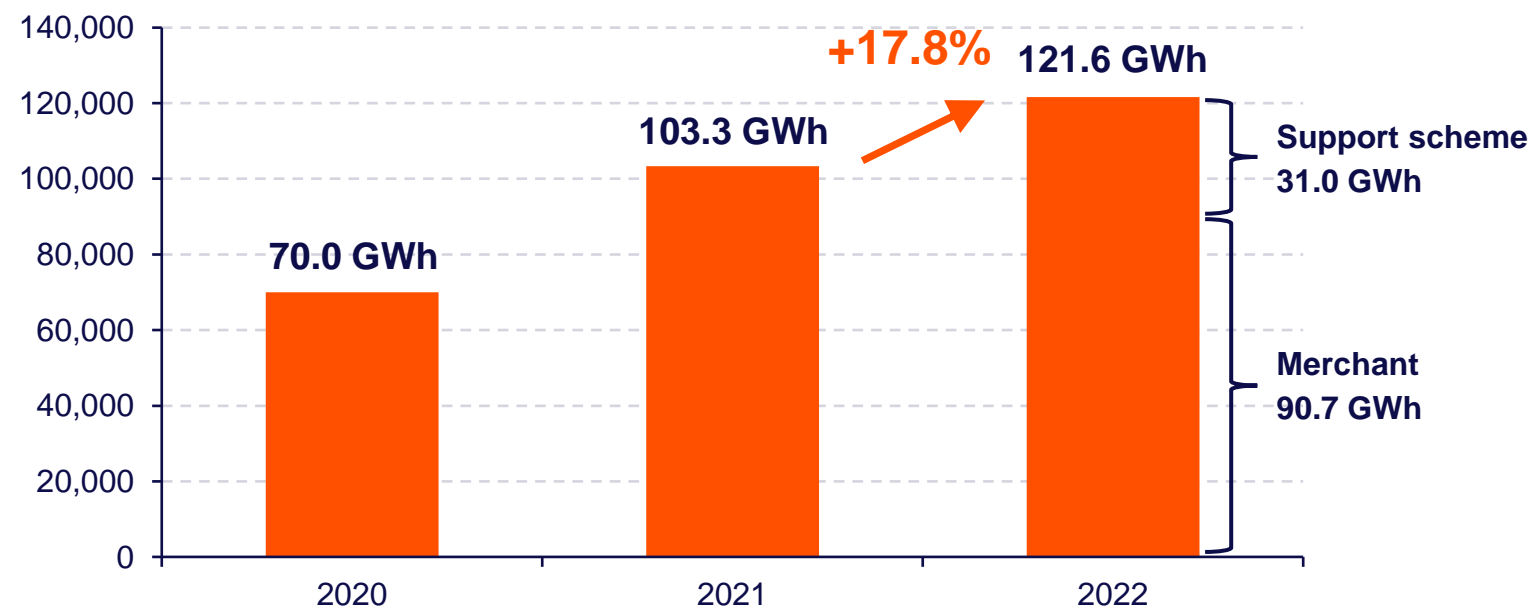
**Calafat**  
6.1 MWp

# Business Development

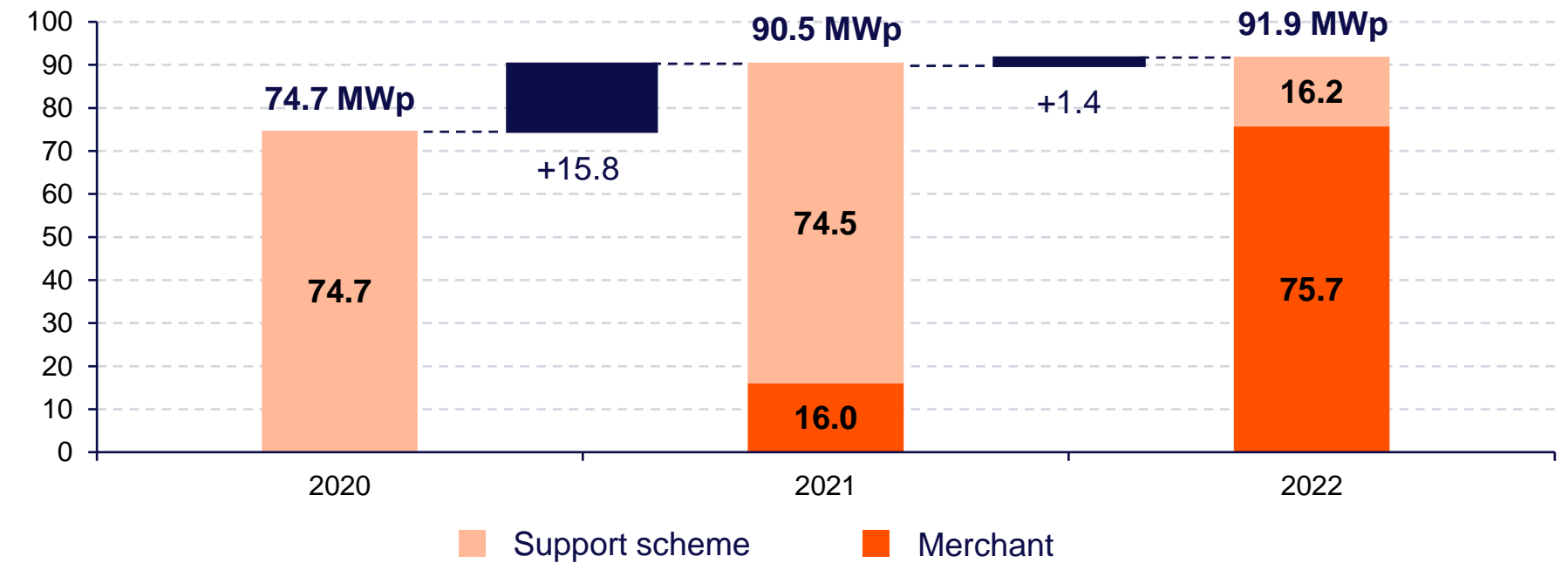
## Continued progress across all segments

- ▶ **121.6 GWh of electricity (+17.8% YoY) generated** by our proprietary power plant portfolio in 2022.
- ▶ Connection of **1.4 MWp in Tolna, Hungary** in May; a fully merchant project.
- ▶ **First ground-breaking in Romania. 8 projects** with a combined capacity of **31.5 MWp** built and undertaking the commissioning process.

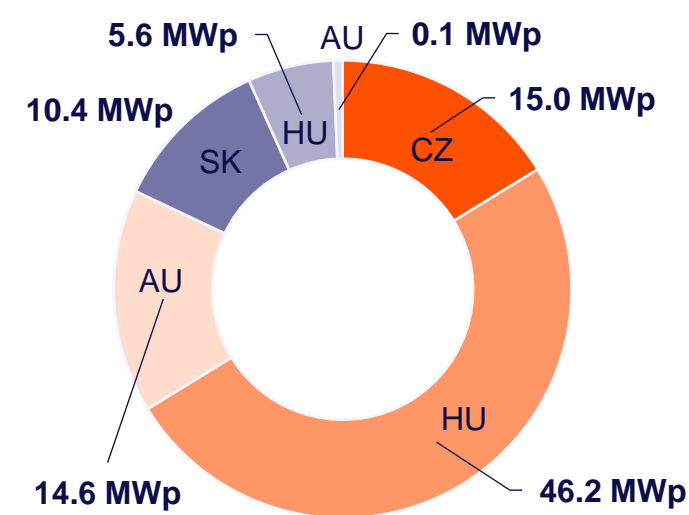
## Electricity generation total portfolio



## Proprietary portfolio, cumulated (MWp)



## Market exposure



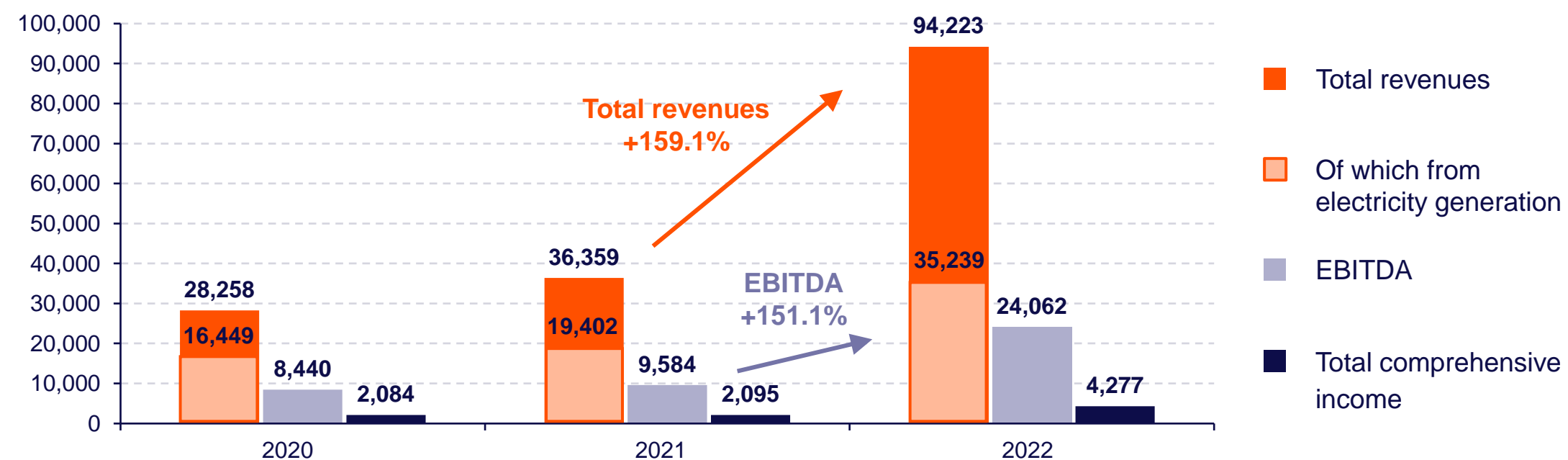
Country	Revenue model	Realized Revenue per MWh
Czech Republic	Green Bonus + Merchant	EUR 805
Hungary	Merchant	EUR 288
Australia	Merchant	EUR 107
Slovakia	FIT	EUR 263
Hungary	FIT	EUR 94
Australia	FIT	EUR 237

# Q4 2022 and FY 2022 Financial Results

## Income Statement

In thousand EUR	Q4 2021	Q4 2022	Change in %	FY 2021	FY 2022	Change in %
<b>Total revenues</b>	<b>11,734</b>	<b>26,438</b>	<b>125.3%</b>	<b>36,359</b>	<b>94,223</b>	<b>159.1%</b>
<i>of which from electricity generation</i>	<i>3,008</i>	<i>3,820</i>	<i>27.0%</i>	<i>19,402</i>	<i>35,239</i>	<i>81.6%</i>
<b>EBITDA</b>	<b>1,030</b>	<b>1,209</b>	<b>17.3%</b>	<b>9,584</b>	<b>24,062</b>	<b>151.1%</b>
<b>EBIT</b>	<b>-621</b>	<b>-355</b>	<i>nm</i>	<b>-712</b>	<b>14,549</b>	<i>nm</i>
<b>Net profit/Net loss</b>	<b>-991</b>	<b>-3,768</b>	<i>nm</i>	<b>-6,433</b>	<b>2,785</b>	<i>nm</i>
<b>Total comprehensive income (TCI)</b>	<b>977</b>	<b>-2,081</b>	<i>nm</i>	<b>2,096</b>	<b>4,277</b>	<b>104.1%</b>

In thousand EUR



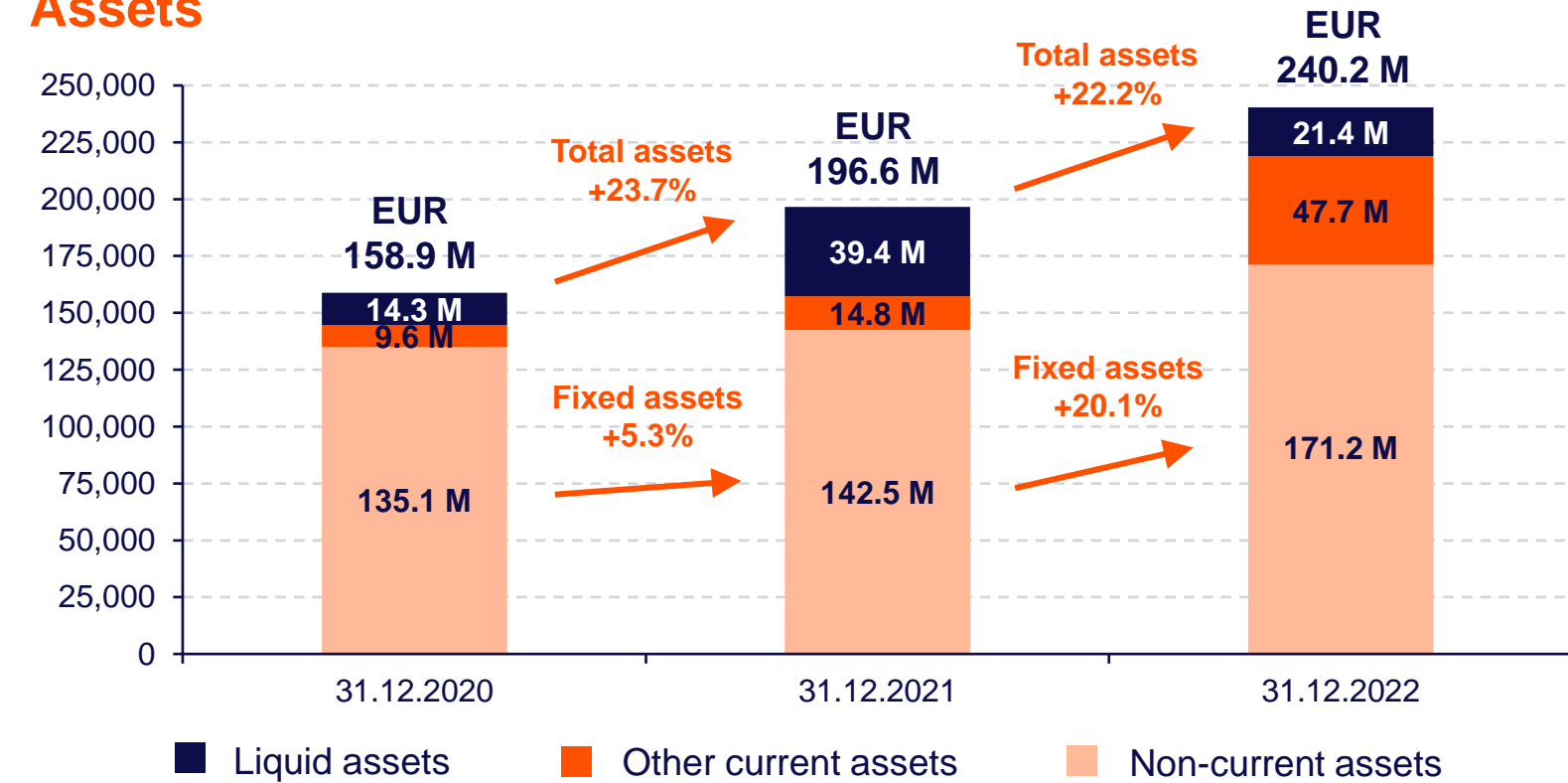
- ▶ In 2022, the Company exceeding its guidance for revenues of EUR 85.0 million and met its guidance for EBITDA of EUR 24.0 million.
- ▶ Year to date, the Company's net profit came in at EUR 2.785 million, compared to a EUR -6.433 million loss for the same period last year.

# Q4 2022 and FY 2022 Financial Results

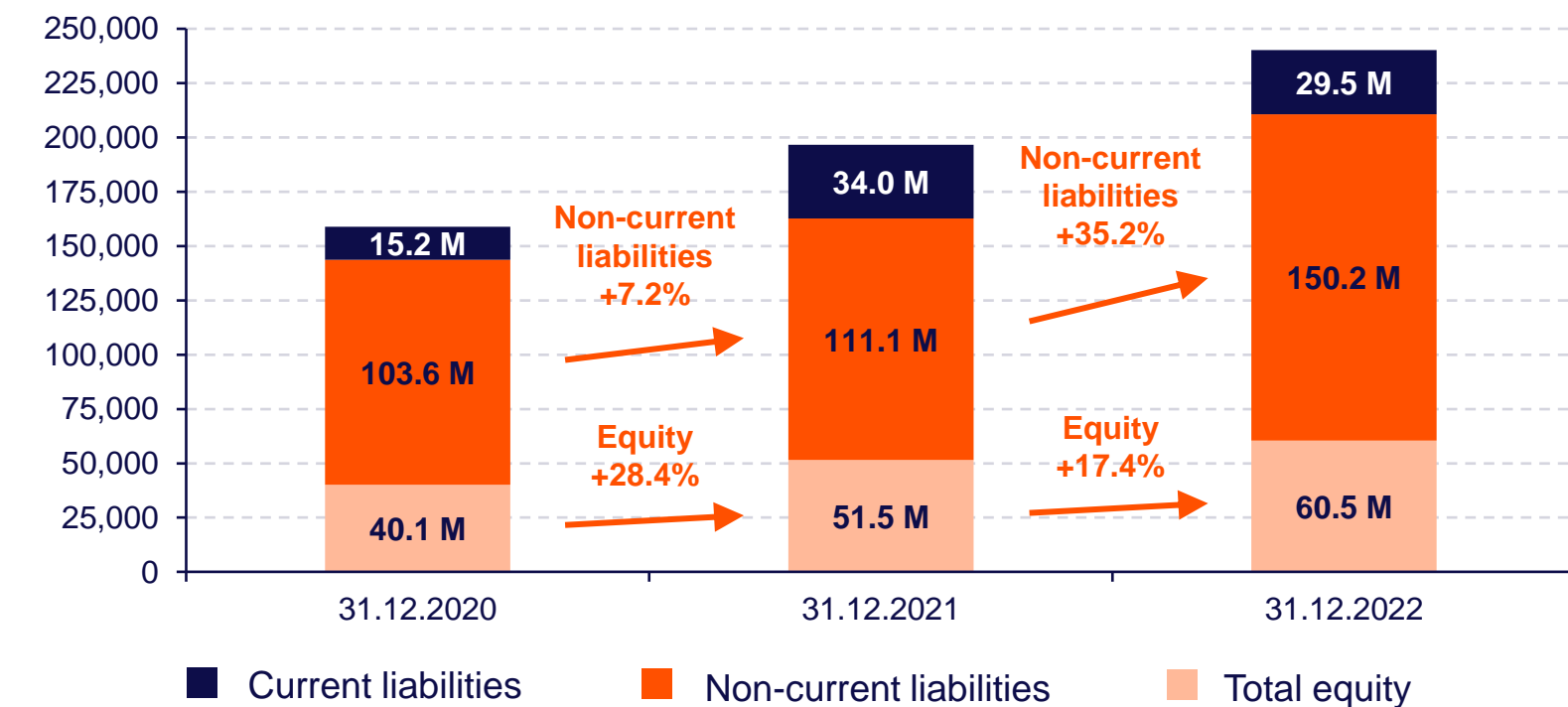
## Balance Sheet

- ▶ **Increase of Fixed assets:** mainly resulting from the increase of our assets in progress in Romania by EUR 24.7 million, and the recording of EUR 12.5 million intangible assets reflecting the acquisition of Lerta.
- ▶ Increase of **Current assets** connected to our business growth, and our procurement strategy.
- ▶ **Equity** increase reflecting the TCI for the period and the transfer of treasury shares in line with the Lerta acquisition.
- ▶ **Long term liabilities increased** due to an increased placement of our EUR Green bond amounting (EUR 10.0 million in Q2 and EUR 12.5 million in Q4), a long-term project refinancing agreement for our Czech portfolio for EUR 28.1 million.
- ▶ **Decrease of Current liabilities** due to the repayment of the Group's EUR bond 2017/22, offset by an increase in trade and other payables and the reclassification of our CZK bond 2016/23 to be repaid on 13 December 2023.

## Assets



## Total liabilities and equity

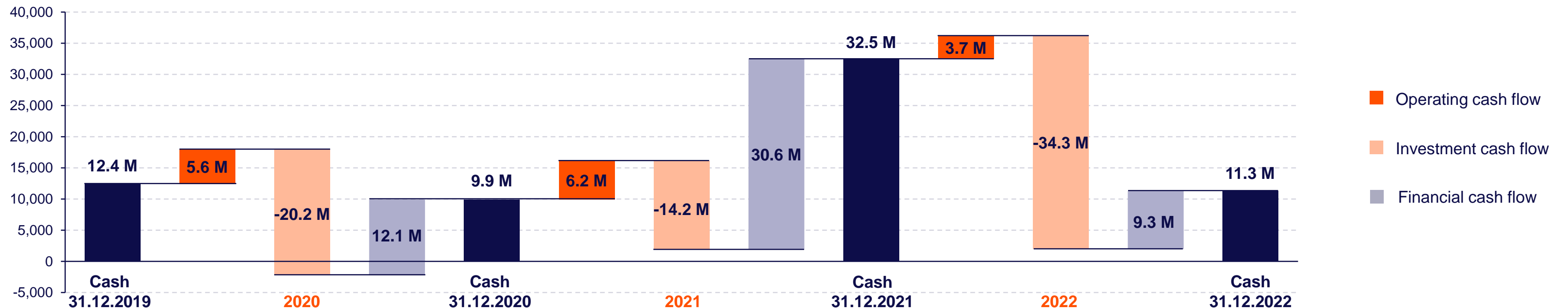


# Q4 2022 and FY 2022 Financial Results

## Cash Flow

<i>In thousand EUR</i>	2020	2021	2022
Operating cash flow	5,562	6,221	3,737
Investment cash flow	-20,171	-14,233	-34,290
Financial cash flow	12,097	30,625	9,314
<b>Net change in cash</b>	<b>-2,512</b>	<b>22,613</b>	<b>-21,239</b>

- ▶ **Positive Operating cash flow** driven by operating result adjusted by negative net working capital, including increased inventories in line with the strong growing Technology sales and our procurement strategy.
- ▶ **Increased investment cash flow** related to work in progress for our proprietary portfolio in Romania and Hungary, and the acquisition of Lerta S.A..
- ▶ **Financial cash flow** impacted by our long-term project refinancing in the Czech Republic, the additional placement of our EUR Green bond 2021/27, scheduled repayments, and the repayment of our EUR Bond 2017/22.





Business Model  
Strategy  
Financials

# Outlook 2023

Q&As

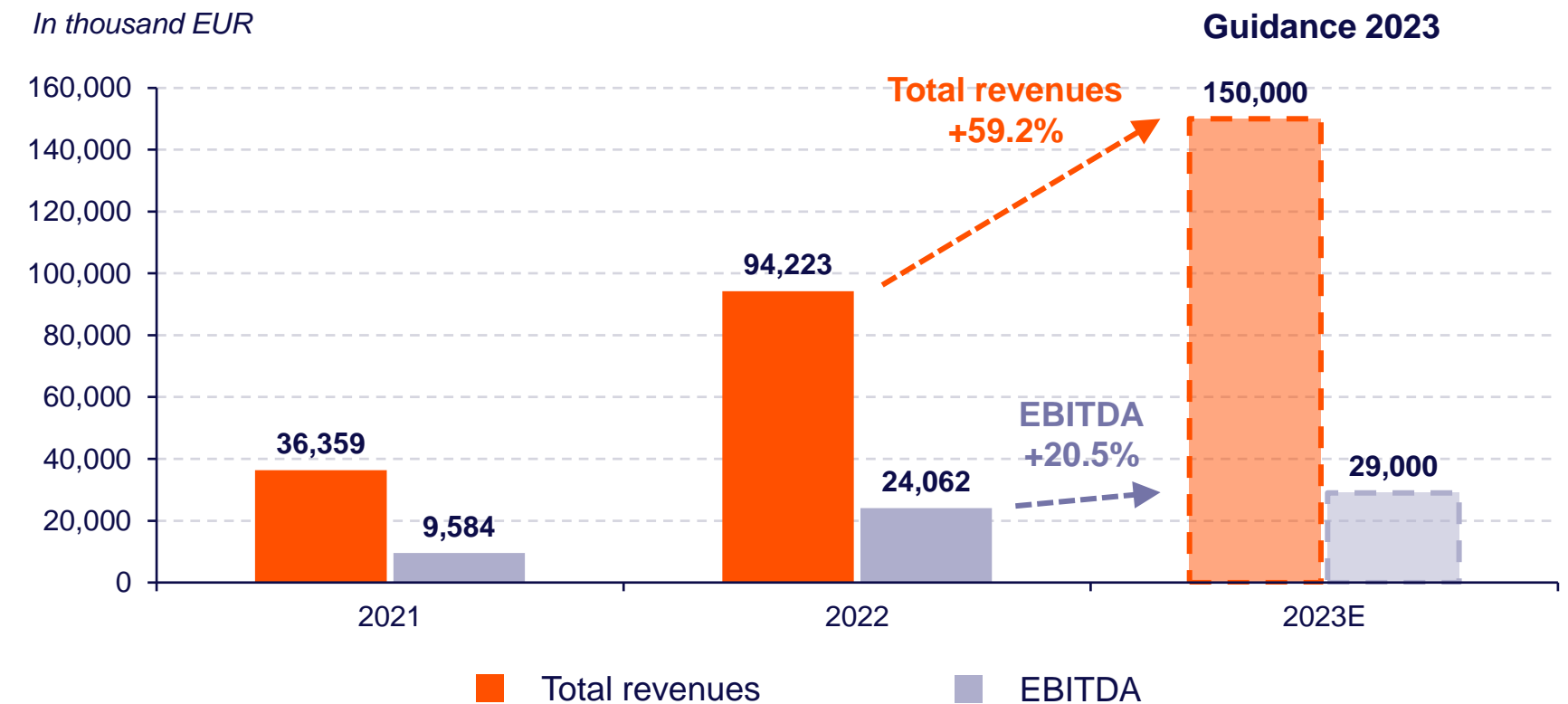
Aiud, Romania (4.7 MWp)



# Photon Energy: Outlook for 2023

## Revenue and EBITDA Guidance

- ▶ **Revenues** projected to reach **EUR 150.0 million** representing a 59.2% increase YoY.
- ▶ Leading to a 20.5% YoY **EBITDA** increase to **EUR 29.0 million**.
- ▶ With the expansion of our business model by the recent acquisition of Lerta, our mid-term guidance is under revision.





**Business Model**

**Strategy**

**Financials and Outlook**

**Q&As**

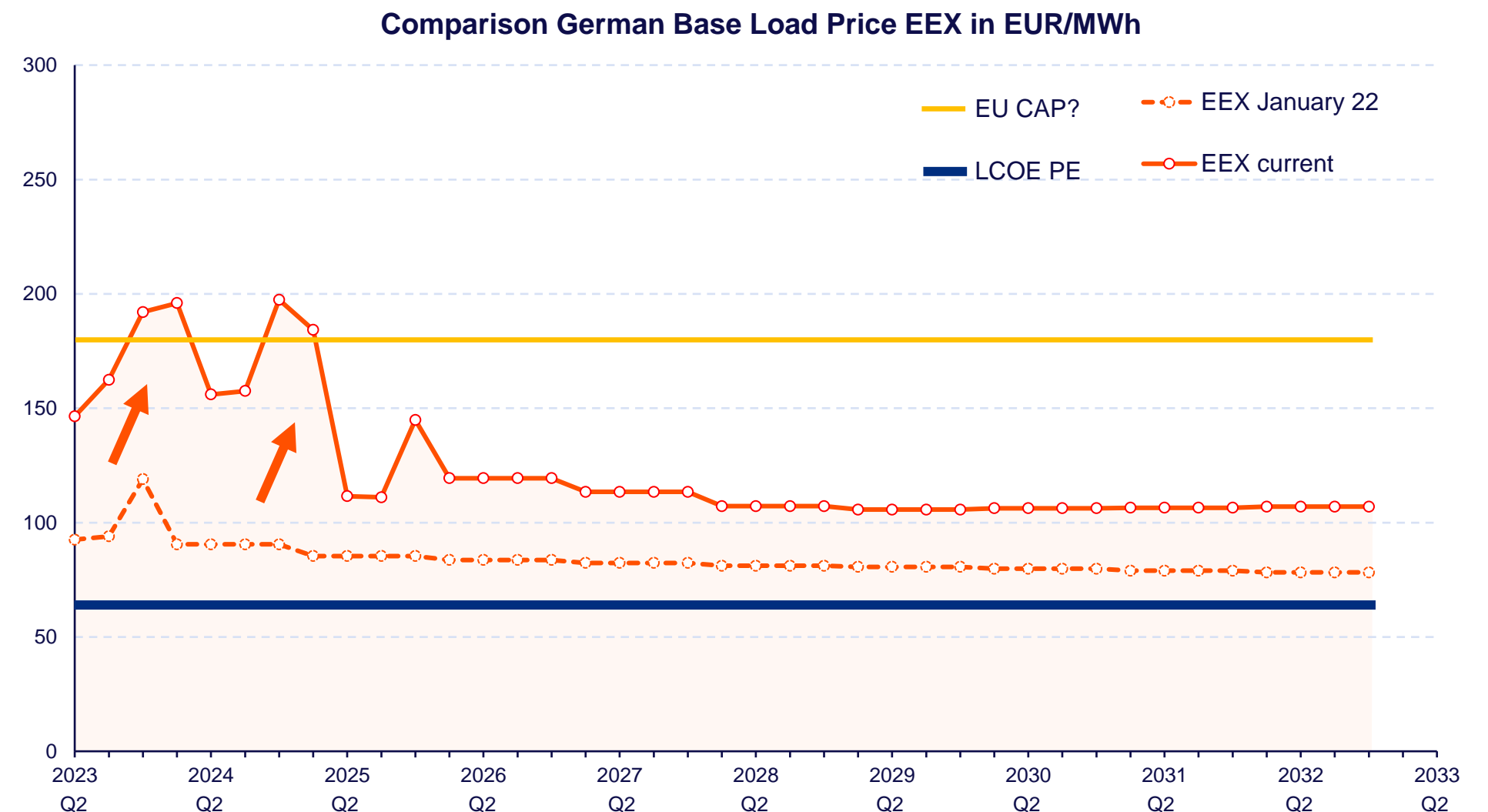


**Annex**

# The Future of Our Business is the Energy Market

## High energy prices in our key markets

Key Figures	Electricity spot price / daily average 31 January 2023	Electricity Forward price 2024
Romania	~153 EUR per MWh	~180 EUR per MWh
Poland	~123 EUR per MWh	~166 EUR per MWh
Hungary	~152 EUR per MWh	~187 EUR per MWh
Czech Republic	~144 EUR per MWh	~179 EUR per MWh
Slovakia	~153 EUR per MWh	~184 EUR per MWh
Australia	~84 EUR per MWh	~110 EUR per MWh



Current Levelized Cost of Electricity (LCOE) is between 60 and 70 EUR per MWh.

**Increasing energy prices and declining LCOE give a chance of operating on mentioned PV markets independently of support schemes – similarly to conventional energy sources through „market approach“. This fact may significantly boost further development of local solar markets.**

# Overbuilding and Using Trackers Makes the Investment More Attractive

## Daily production profile (fixed and trackers) vs HUPX DAM hourly electricity prices

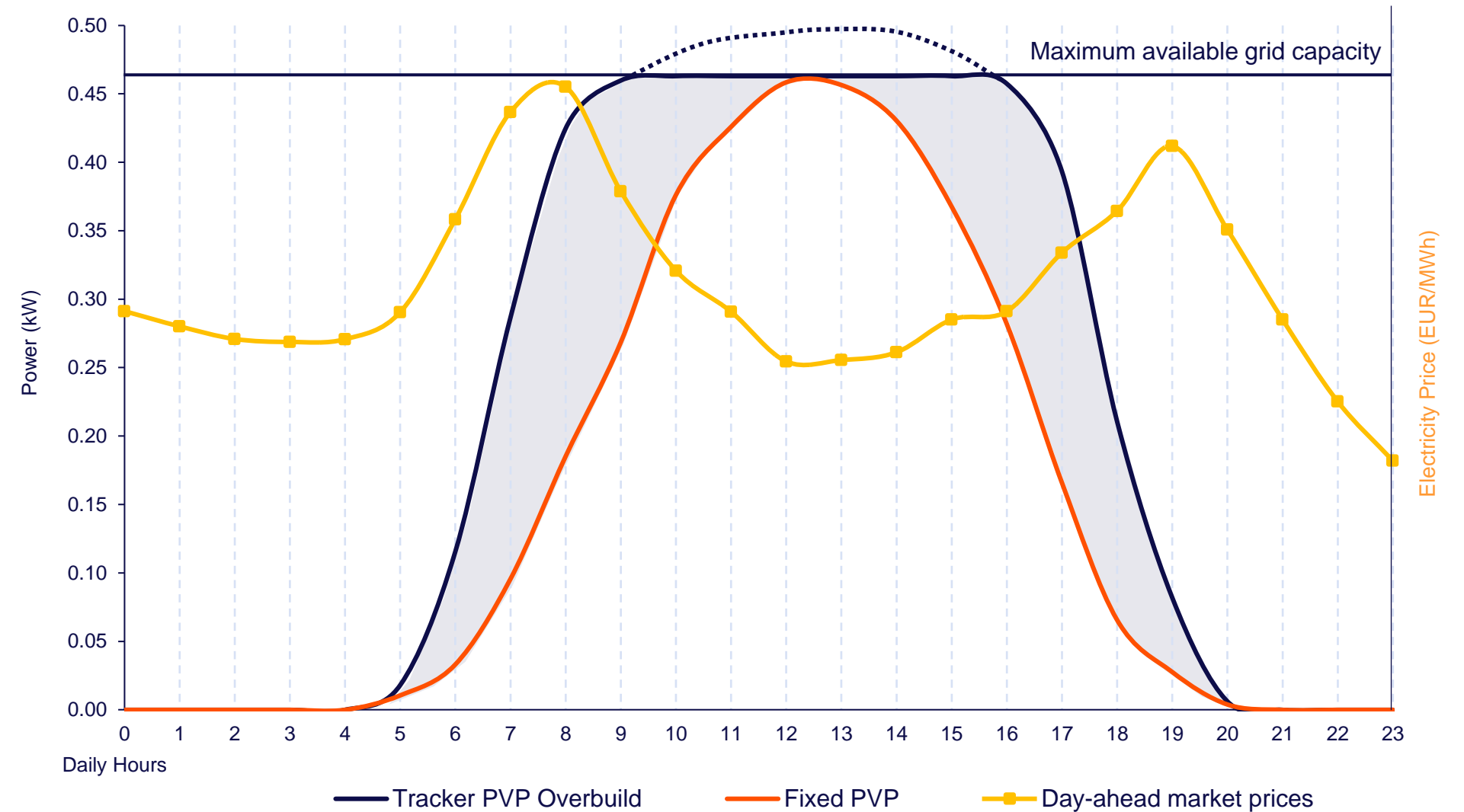


**Fixed-tilt installation**

← WEST EAST →



**Single-axis trackers**



**Higher electricity production during morning and evening hours when electricity prices are more attractive => higher total revenues**

# Business Model: Solar Services

Our services cover the entire lifecycle of photovoltaic systems.



## Project Development

We **develop projects** in-house and **acquire them** at all stages of development.



## Engineering (EPC)

We design and build **on- and off-grid** installations, including **energy storage solutions**.



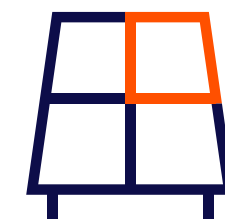
## Operations and Maintenance

We provide a full range of O&M services, including **monitoring** and **inverter maintenance**.



## Electricity Generation

We invest in PV power plants for the **sustainable** production and sale of **solar energy**.

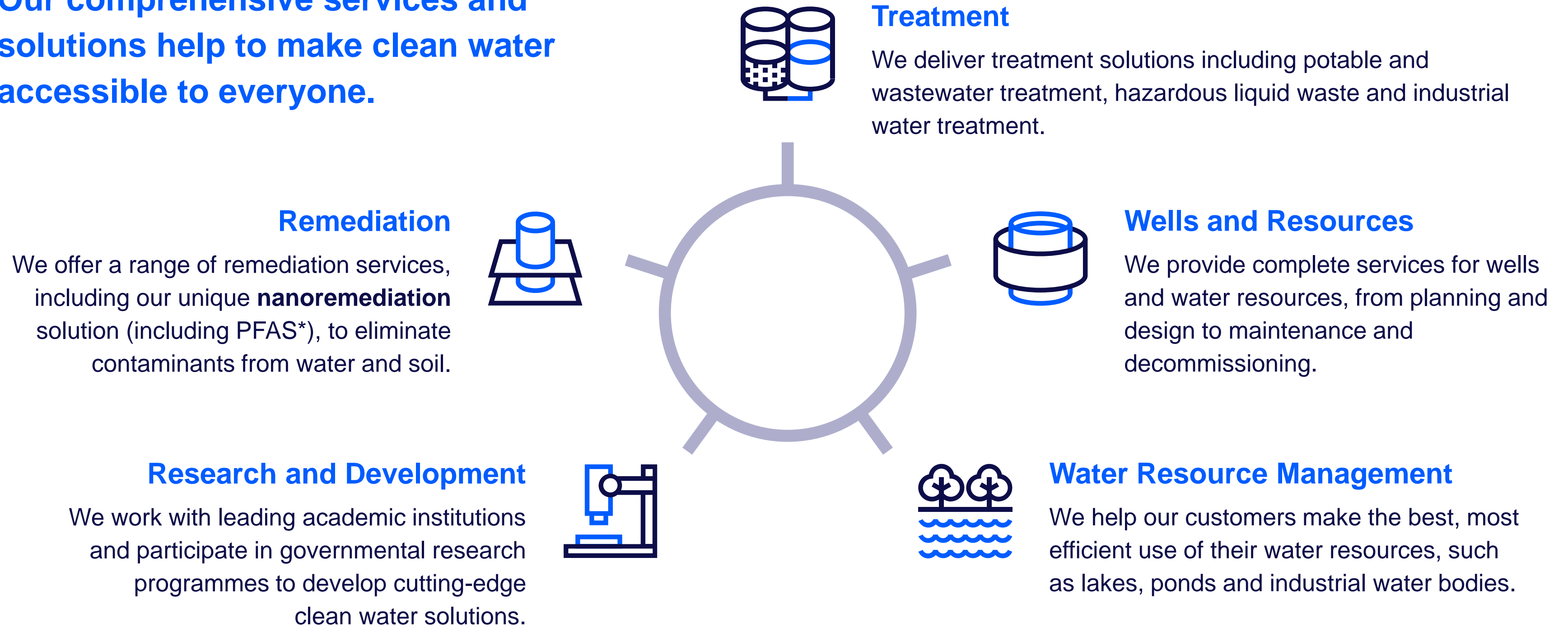


## Technology

We procure and trade **PV components** to fit any project's location, design and budget.

# Business Model: Water Services

Our comprehensive services and solutions help to make clean water accessible to everyone.



\* Per- and polyfluoroalkyl substances.

# RayGen Technology to Accelerate Further Capacity Growth

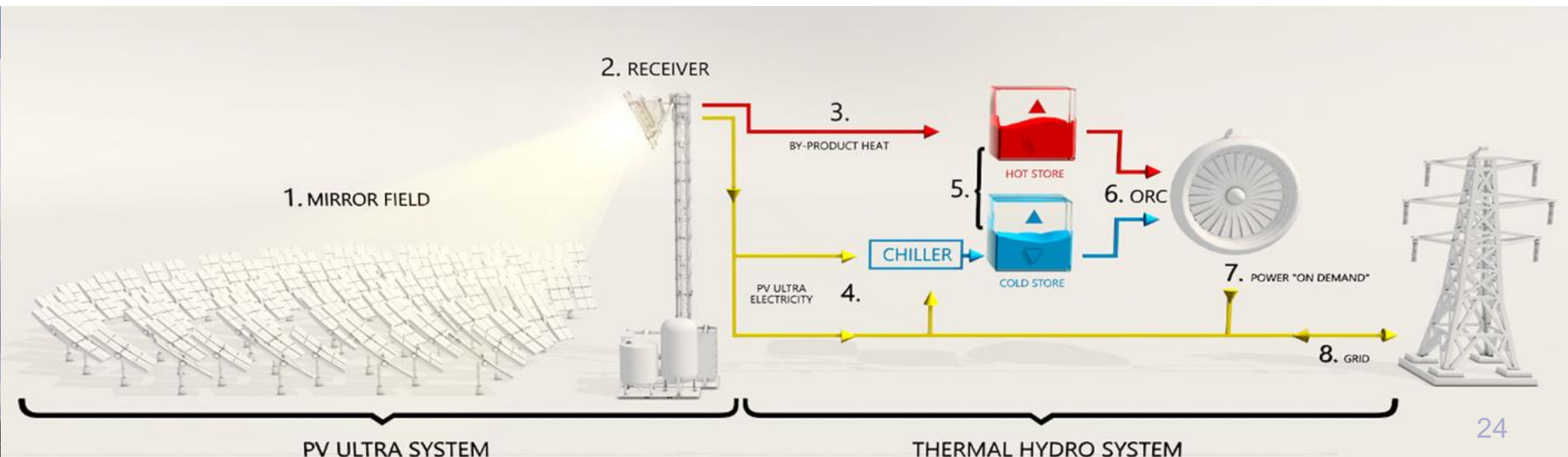


## About the technology

- ▶ RayGen has combined its proprietary solar technology, **PV Ultra**, with its **unique storage system, Thermal Hydro**.
- ▶ The PV Ultra system generates both electricity and heat by focusing sunlight onto tower-mounted PV receivers.
- ▶ Thermal Hydro uses hot- and cold-water reservoirs to store the thermal and electrical energy generated by PV Ultra.
- ▶ The storage system can then be used to drive a heat-to-power engine, which provides reliable, on-demand power.

## About our partnership

- ▶ Photon Energy made a **minority equity investment** in the company in April 2020 and participated in second financing round with AGL, Schlumberger, Chevron, Equinor and others in April 2021.
- ▶ Photon Energy will **act as a project developer and EPC contractor** and a potential equity investor.
- ▶ Photon Energy is currently **working on the development of a 300 MWp / 3.6 GWh solar-plus-storage project**, which will exceed the 3 GWh capacity of the Ouarzazate Solar Power Station in Morocco, which currently has the world's largest energy storage capacity of any type, excluding pumped hydro.





# Photon Water – Business Opportunity Still Not Priced In

## Nano-remediation is our answer to the global problem of PFAS contamination in ground water

### Definition of Global Hazard

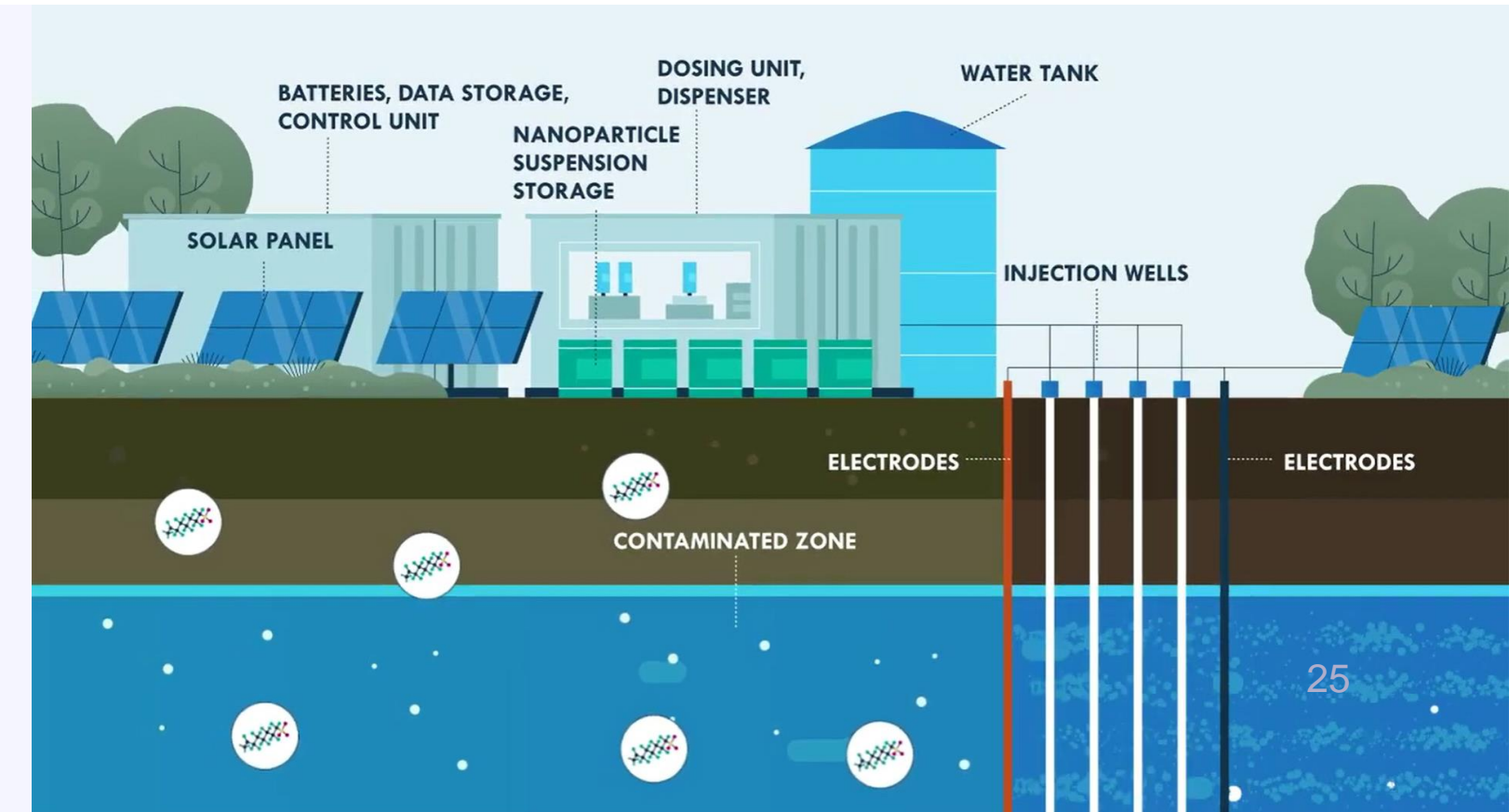
**Per- and polyfluorinated substances (PFAS)** – group of chemicals used to make various industrial and household products. PFASs can migrate into liquids in the landfill, further moving into leachate collection systems and/or directly into the natural environment. PFAS do not break down naturally, and they **pose a serious risk to people health and environment.**

### Our Nano-remediation solution

It is a **proprietary patent-pending solution**, which enables in-site removal of PFAS from groundwater without the need for pumping and surface treatment or disposal processes. The Company signed **an agreement with the Australian Department of Defense**, on the basis of which the trial is performed to confirm the efficacy of this technology.

### Perspective Markets:

- ▶ **Australia** – is expected that the liquid waste market will grow at the level of **3–5% annually**, whilst selected segments such as **PFAS/PFOA** are projected to grow at rates over **100% per annum**.
- ▶ **Europe** – compared to Australia, European market is **at the earlier stage of defining and handling the PFAS** contamination issue, but a **similar market development path is expected.**



# Our Share

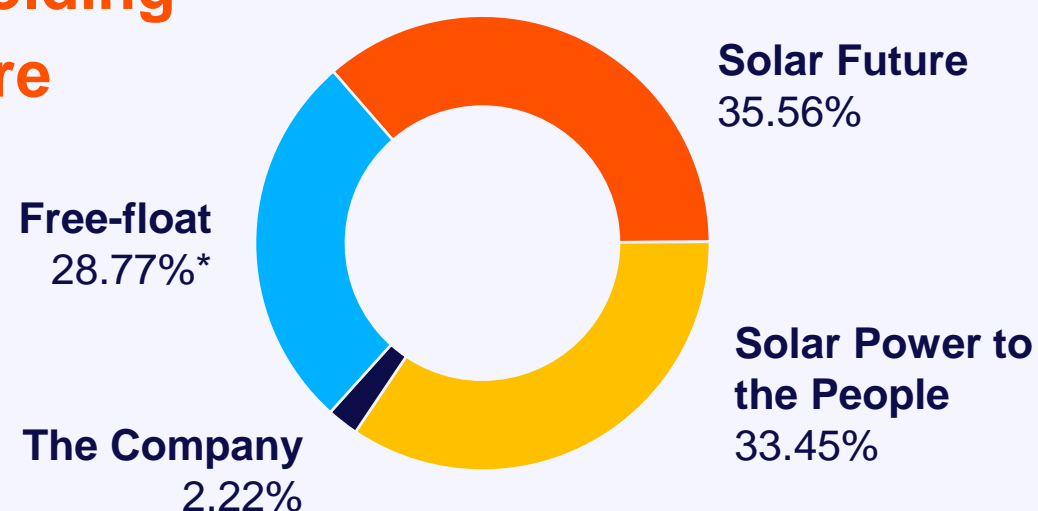
ISIN	NL0010391108
Shares outstanding	61,238,521
Shares in free-float	17,618,192
Market cap 01.02.2023	EUR 159 million
Net debt 31.12.2022	EUR 128 million
Enterprise value 01.02.2023	EUR 287 million

# Research

Institution	Rating	Target Price*		
AlsterResearch	Buy	<b>EUR 4.40</b>	PLN 20.64	CZK 106
IPOPEMA	Buy	EUR 3.11	<b>PLN 14.58</b>	CZK 75
WOOD & Company	Buy	EUR 4.37	PLN 20.50	<b>CZK 105</b>

\*Prices in bold stated by research reports; other currencies included for reference.

## Shareholding Structure




\* including Tomala Investments' shareholding of 3.83%.

Solar Future and Solar Power to the People are controlled by the co-founders of Photon Energy N.V.


- ▶ Photon Energy is listed on the **regulated markets of Prague and Warsaw Stock Exchanges.**
- ▶ Additionally, it is listed on **XETRA** in **Frankfurt** and in alternative system of trading on stock exchanges in Berlin, Munich and Stuttgart.
- ▶ Photon Energy adheres to the Dutch **Corporate Governance Code** and the Best Practices of the Warsaw Stock Exchange.

# GREEN EUR Bond 2021/27

<b>Bond</b>	<b>GREEN EUR Bond 2021/2027</b>	 <p><b>Best Issuer</b> Green SME Bonds 2021</p>  <p><b>BOND MAGAZINE</b></p>
<b>Volume</b>	EUR 77.5 million	
<b>Coupon</b>	6.50% p.a., quarterly payment	
<b>Initial offering</b>	23 November 2021	
<b>Ratings/Awards</b>	<ul style="list-style-type: none"> <li>▶ IMUG   rating – <u>second party opinion</u>,</li> <li>▶ KFM Barometer 4 of 5 stars</li> <li>▶ Best Issuer Green SME Bonds 2021</li> </ul>	
<b>Segment</b>	Secondary market: trading on Open Market of the Frankfurt Stock Exchange since 23 November 2021	
<b>Covenants</b>	<ul style="list-style-type: none"> <li>▶ Dividend restriction (max 50% if EBITDA/ICR &gt; 2)</li> <li>▶ Group Equity ratio ≥ 25%*</li> <li>▶ Cross default</li> <li>▶ Negative pledge</li> <li>▶ Pari passu</li> <li>▶ Change of Control-Clause</li> <li>▶ Transparency clause</li> </ul>	
<b>Denomination</b>	EUR 1,000	
<b>Term / Redemption</b>	Six years / 23 November 2027 at par	
<b>ISIN</b>	DE 000A3KWKY4	

KFM-Barometer  
Mittelstandsanleihen  
November 2021

6,50%-Anleihe  
Photon Energy N.V.  
Anleihe 21/27, WKN A3KWKY



★★★★☆

**Attraktiv**  
(4 von 5)

\* The Group defines and calculates adjusted equity ratio as total equity divided by the sum of interest-bearing debt and equity.