

# Company Presentation





### **About Us**

Photon Energy Group is a group of companies with a shared purpose.

It's our mission to make clean energy and water accessible to all. We deploy technology to provide these fundamentals and help build a thriving, sustainable world.



# **Our Companies**



Comprehensive solutions to support the generation of clean energy and the successful integration of renewables into our power supply.



Environmental solutions ranging from lake management to the removal of PFAS from groundwater and soil.

# **Our Leadership Team**

**CFO** 



### **Georg Hotar** CEO, Co-founder

Georg co-founded Photon Energy in 2008. He has extensive knowledge of the solar energy industry and international finance. In 2000 he established Central European Capital, a regional finance and strategy advisory boutique. He has also held various positions in financial services in London, Zurich and Prague.



#### Michael Gartner CTO, Co-founder

Michael developed one of the first large PV installations in the Czech Republic before co-founding Photon Energy in 2008.

He relocated to Australia in 2011 to start Photon Energy Australia, and is now instrumental in driving Photon Energy's off-grid and solar-hybrid power solutions.



#### **David Forth**

David is a British national who has gained extensive experience in top managerial positions with multinational companies including British Petroleum, BAT, Schneider Electric, Adecco and Costa Coffee. David is a British Chartered Accountant (FCA), qualifying with KPMG in London, and has a Degree in Law from Queen Mary University of London.



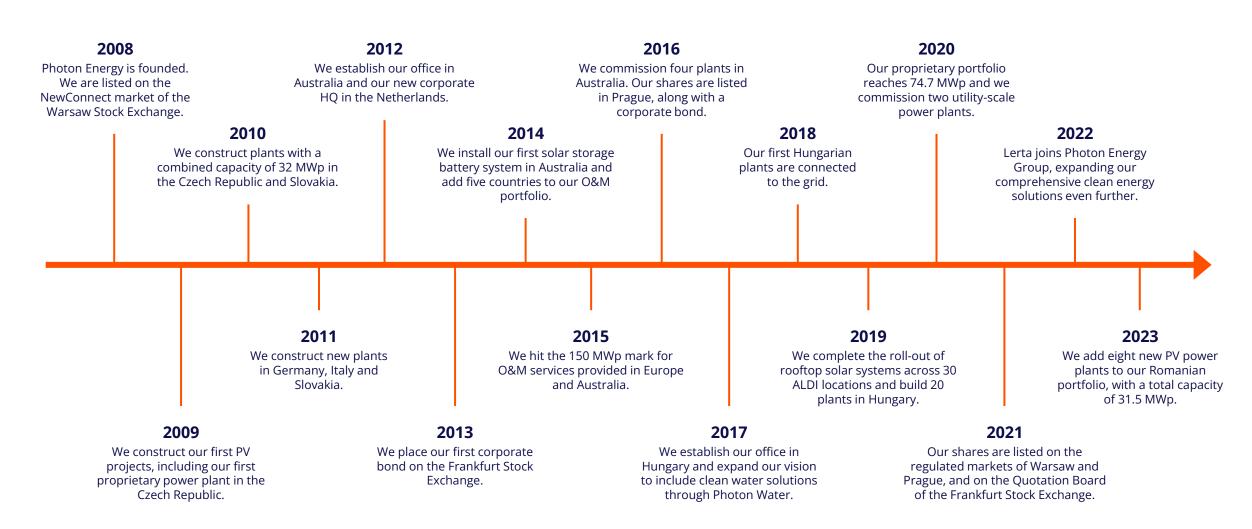
### **Ricky D'Ambrosca**

COO

Rick is responsible for the day-to-day administration of Photon Energy Group and its operational functions as a business.

He joined the company in 2022 in order to strengthen our management team during this period of growth.

# **Our Story**



## **Our Global Presence**







O&M Services for Power Plants



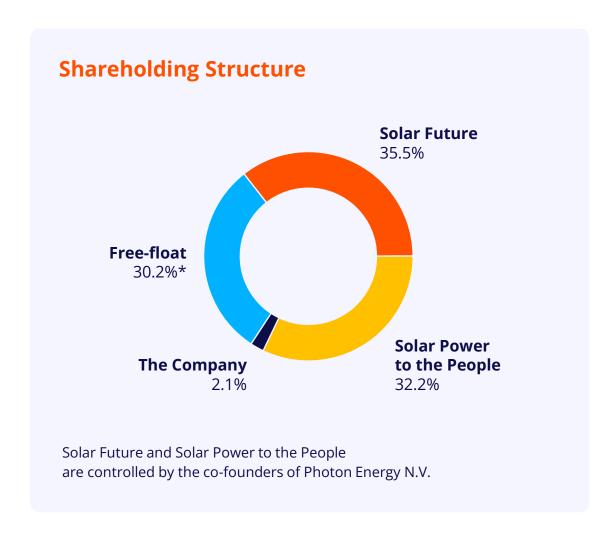
Energy Trading Licence

O Photon Water Services

O Photon Energy Group Offices



### **Our Shares and Bonds**



### **Share** (Warsaw, Prague & Frankfurt)\*

NL0010391108
59,946,565
16,671,677
EUR 57 million
EUR 114 million
EUR 171 million

<sup>\*</sup> Also listed on stock exchanges in Berlin, Munich and Stuttgart

### **Green Bond** (Frankfurt)

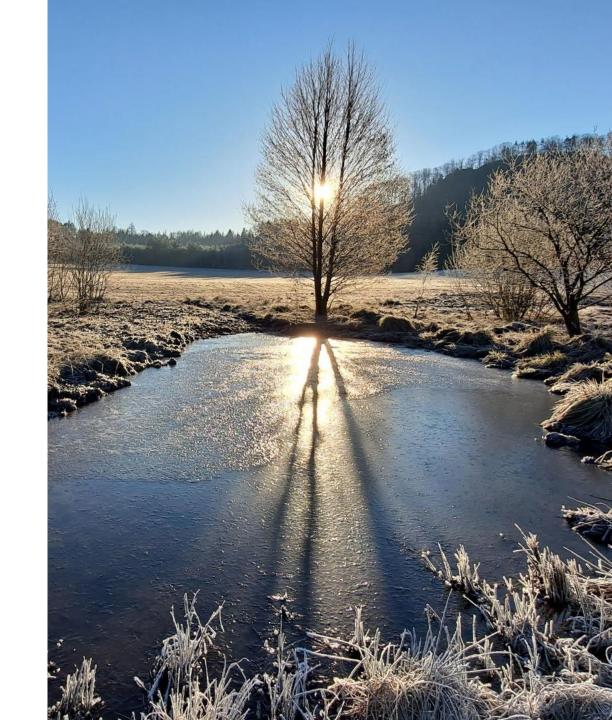
ISIN	DE000A3KWKY4
Coupon (paid quarterly)	6.50% p.a.
Denomination	EUR 1,000
Redemption date	22. 11. 2027
Nominal value	EUR 79.4 million

# **Sustainability Highlights**

- All of our work is connected to activities creating sustainable value to the environment
- ▶ **Wetland installation** in the Czech Republic to restore the local wetland habitats (biodiversity and residents)
- Container-based water treatment units to supply municipalities in Peru with safe drinking water
- Hybrid solar system in Lord Howe Island with a customised fence to protect endangered birds
- ► A **flexible working environment** adapted to COVID-19 crisis
- A Supervisory Board was established
- ► **First Sustainability report** released for the year 2020
- Sustainability rating renewed ("Very Good") from sustainability rating agency imug | rating



→ <u>Summary Report</u>





# Powering the Future

Our solar power and renewable energy solutions help make clean energy accessible to everyone.

# **Photon Energy in Numbers**



**180+ MWp** constructed



**129.6 MWp** proprietary portfolio



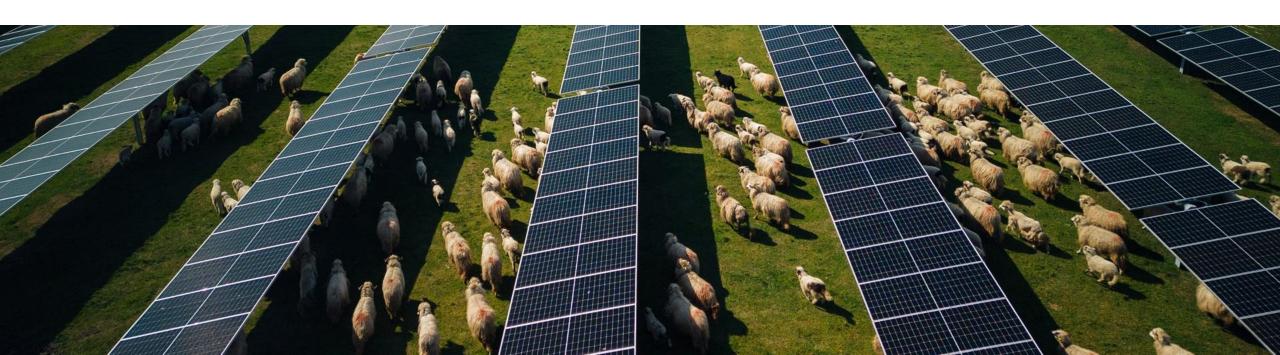
**165.6 GWh** produced in 2024



**1,000+ MWp** O&M portfolio



**1,006 MWp** project pipeline



### **Solar Power Solutions**

Our services cover the entire lifecycle of utility-scale and on-site photovoltaic systems.



### **Project Development**

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



### **Energy Generation**

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



#### **EPC Solutions**

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



### **Asset Management**

We offer a **full suite of SAM services** designed to cover every stage of solar investments.



### **Technology**

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



### **Operations and Maintenance**

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

# **New Energy Solutions**

The energy landscape is changing. Through our Virtual Power Plant and energy storage solutions, we help our clients take control of their energy security and benefit from the global transition to renewables.



### **Energy Flexibility**

We help clients earn money through programs and mechanisms such as DSR and the Capacity Market.



### **Energy Supply and PPAs**

We supply electricity at competitive rates, with unparalleled customer service.



### **Battery Energy Storage Systems**

On-site storage systems to ensure a consistent energy supply.



### **Energy Offtake**

We purchase energy from renewable sources including solar, wind and biogas.

# **Project Development**

Solar energy solutions from concept to completion.

We acquire PV projects of all shapes and sizes, at all stages of development. Every solar energy project is unique, which is why our services are adaptable to fit the specific needs of our customers and partners. Our current project pipeline is **1,000+ MWp**.

- Land acquisition and location solutions
- Administration and financial planning
- Joint ventures
- Partnerships with banks and investors
- Technology and design



# **Project Pipeline**

Country	1. Feasibility	2. Early development	3. Advanced development	4. Ready-to-build technical	5. Under construction	Total in MWp
Romania	8.4	74.9	61.7	36.4	-	181.5
Poland	252.5	17.2	20.3	-	-	290.0
Hungary	25.0	-	2.7	-	5.1	32.7
Kustralia	90.0	-	150.0	-	-	240.0
South Africa	-	262.0	-	-	-	262.0
Total in MWp	375.9	354.1	234.7	36.4	5.1	1,006.2







### **EPC Solutions**

We design and build power plants with quality and longevity in mind.

- ► Turnkey solutions for PV projects
- Consultancy and yield studies
- Value engineering, including concept design
- Project planning and management
- Counterparty negotiations and contracting
- Customised off-grid and energy storage solutions
- Subsidy support

EPC delivered	182.7 MWp
Italy	1.3 MWp
Germany	1.4 MWp
Romania	53.5 MWp
Poland	1.0 MWp
Australia	27.2 MWp
Hungary	52.5 MWp
Slovakia	14.9 MWp
Czech Republic	30.9 MWp



# **Technology**

World-class technology delivering world-class performance.

- High-quality and bankable modules on mono-facial and bi-facial basis
- High-performance monocrystalline PERC modules from Jinko Solar, Longi Solar and JA Solar
- Powerful and robust inverters
- Integrated power storage and backup systems
- Monitoring and control devices









mounting systems



# **Asset Management**

Optimising performance. Maximising returns.

- ► Risk mitigation through early-stage asset management
- Optimised system design in planning stage
- Performance data analysis

- Financial reporting and forecasting
- ► Regulatory compliance management
- Asset lifecycle optimisation



# **Operations and Maintenance**

We manage over 800 MWp worldwide.

We maximise performance through preventive maintenance.

The power plants we manage run with an average uptime of more than 99%.

- Preventive maintenance
- Service interventions
- Compliance & Reporting
- Performance monitoring
- Accounting services

- Security support
- ► Technical audits
- Due diligence
- Site maintenance



# **Monitoring and Control**

Maximising yield while minimising cost.

We perform monitoring and analysis in real time for over 120 projects around the world. Through active dispatching, we can respond to any issues promptly and efficiently, helping our customers to minimise costly downtime.

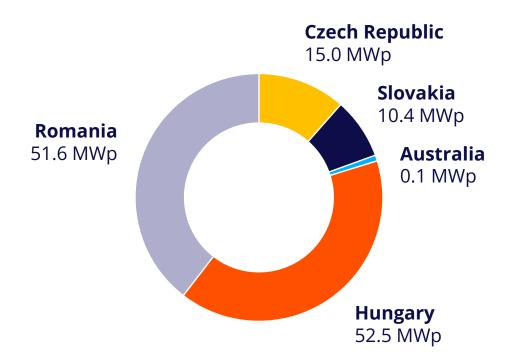
### **Our monitoring platform PECOM:**

- Optimises installation and hardware costs
- Detects problems quickly
- ▶ Is used by industry-scale owners, operators and investors
- Connects to external systems free of charge
- ► Includes 24/7 technical support
- Delivers reporting and notifications



### **Investments**

As an IPP, we own 100 PV power plants with a combined capacity of 129.6 MWp.





# **Our Key Markets**

### **Czech Republic**



**EPC Solutions 30.9** MWp



0&M 110.9 MWp



IPP Portfolio **15.0** MWp



Asset Management 15.0 MWp



#### **Australia & New Zealand**



**EPC Solutions 23.6** MWp

0&M **24.2 MWp** 



IPP Portfolio

0.1 MWp IPP Portfolio



### Slovakia



**EPC Solutions 13.6** MWp



0&M 15.0 MWp



IPP Portfolio **10.4** MWp



Asset Management **10.4** MWp



#### **Poland**



**EPC Solutions 1.0** MWp



0&M **413.2** MWp



**DSR Services** 389 MW



### Hungary



**EPC Solutions 52.5** MWp



0&M **393.2 MWp** 



IPP Portfolio **52.5** MWp



Asset Management **211.4** MWp



#### Romania



**EPC Solutions 53.5** MWp



0&M **87.1 MWp** 



IPP Portfolio **51.6** MWp



Asset Management **51.6** MWp



# **Recent Projects**

- ▶ 20-year on-site PPA: 658 kWp PV power plant for Forvia in Hungary
- Commissioning of our 12 proprietary power plants in Romania, with a combined capacity of 48.3 MWp
- 5 rooftop installations with a combined capacity of 860
   kWp for agricultural businesses in the Czech Republic
- 25+ PV installations with a combined capacity of over
   5 MWp for industrial property developer Goodman in Australia
- ▶ 1 MWp rooftop power plant for a logistic center of a major online retailer in Romania
- ▶ **950 kWp** PV power plant for municipal wastewater treatment facility serving city of Koszalin in Poland
- ► Hybrid solar and battery storage system on **Lord Howe Island**, a UNESCO World Heritage Site





### What We Do

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



#### **Water Treatment**

We deliver treatment solutions including potable and wastewater treatment, hazardous liquid waste and industrial water treatment.



#### **Environmental Remediation**

We offer a range of remediation services, including our unique nanoremediation solution, to eliminate contaminants from water and soil.



#### **Wells and Resources**

We provide complete services for wells and water resources, from planning and design to maintenance and decommissioning.



### **Research and Development**

We work with leading academic institutions and participate in governmental research programmes to develop cutting-edge clean water solutions.



### **Water Resource Management**

We help our customers make the best, most efficient use of their water resources, such as lakes, ponds and industrial water bodies.

# **Environmental Remediation**

Sustainable solutions for the removal of PFAS and other contamination.

Following the successful application of our patented technology in recent remediation projects, we're entering an exciting new era at Photon Energy Group.

Powered by years of technological innovation from Photon Water's team of experts, **Photon Remediation** will soon be the dedicated brand for our environmental remediation solutions.

- Patented technology for the in-situ removal of contamination from groundwater
- Complete, customised solutions for the elimination of PFAS, hydrocarbons and other contaminants from water, soil and biosolids
- Ongoing research and development to ensure the latest, most effective solutions



### **Water Treatment**

Water treatment solutions to meet any challenge, in any environment.

In addition to supplying both large- and small-scale **water treatment units**, we can provide a range of comprehensive, customisable solutions, including the treatment of:

- Industrial wastewater. Our services include EPC solutions and operations and maintenance.
- Hazardous and non-hazardous liquid waste. As well as technical treatment and management solutions, we can provide guidance in areas such as regulation and compliance and emerging waste strategies.
- **Potable drinking water.** We offer a variety of chemical programs and process-optimisation services for potable drinking water.



## **Wells and Resources**

Complete solutions for new and existing water wells.

We have the expertise and proven track record to provide customised water well solutions using state-of-the-art technology and techniques.

Our services are comprehensive, and cover the complete lifecycle of water wells:

- Project development
- Drilling
- Diagnostics

- Regeneration
- Monitoring
- Decommissioning



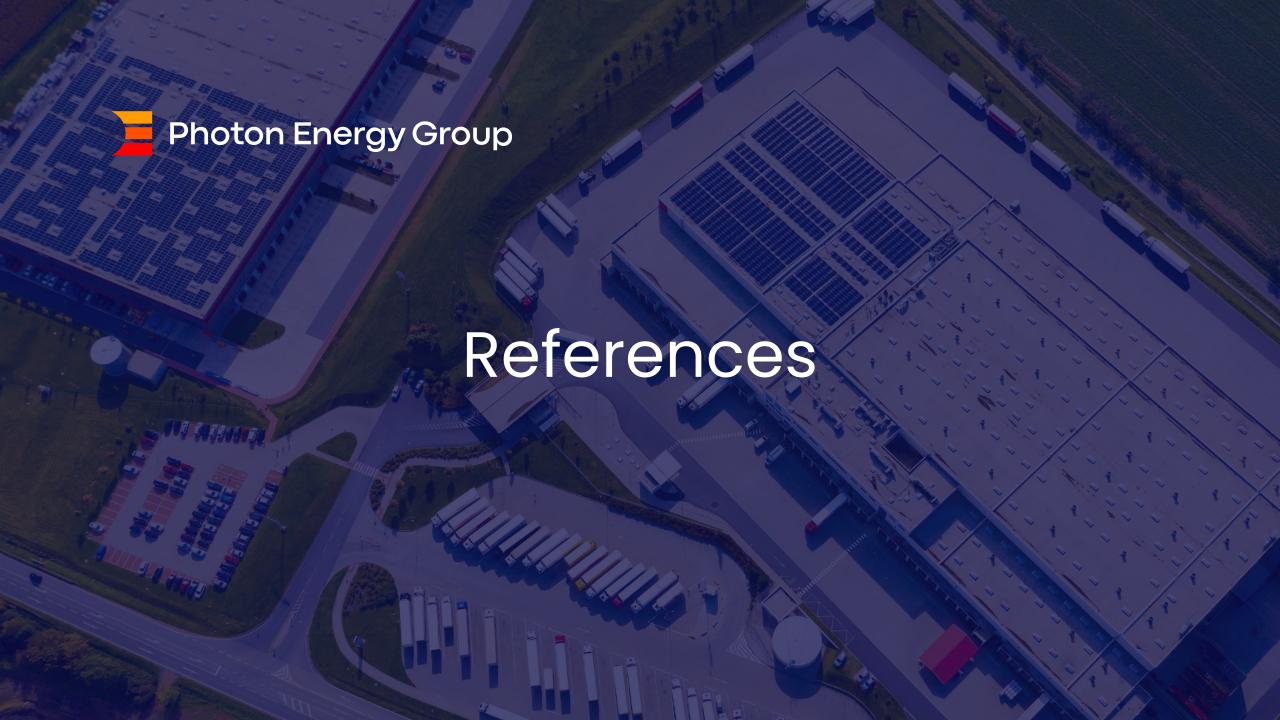
# **Water Resource Management**

Complete solutions for water systems and resources.

We provide comprehensive, customised solutions to help our customers successfully manage a wide range of water systems and resources.

- Small reservoir design and operational guidance
- Modification and revitalisation of small watercourses
- Water retention in the landscape
- ► Flood protection and prevention
- Erosion control
- Rainwater management
- Algae control in lakes and ponds





# **Large-scale Power Plant**

Leeton, Australia 14.5 MWp, 2021 (EPC, O&M)



# **Utility-scale Power Plants**

Siria, Romania 5.7 MWp, 2023 (EPC, O&M)



Teius, Romania 4.7 MWp, 2023 (EPC, O&M)



Monor, Hungary

5.6 MWp, 2019
(EPC, O&M)



Tiszakécske, Hungary

**5.5 MWp, 2018** (EPC, O&M)



# **Utility-scale Power Plants**

Les Mees, France 18 MWp, 2014 (O&M)



Ellrich, Germany

1 MWp, 2012
(EPC)



Ráztoka, Slovakia 1 MWp, 2011 (EPC)



Tuřany Airport, Czech Republic

**7.5 MWp, 2010** (EPC)



# **On-site Power Plants**

Nagykáta, Hungary

**658 kWp, 2024** (On-site PPA, EPC, O&M)



### **On-site Power Plants**

Bunnings, Australia 150 kWp, 2024 (EPC)



St Marys Rugby League Club, Australia

**450 kWp, 2024** (EPC, O&M)



**CTParks, Slovakia** 

1.26 MWp Total Capacity, 2022 (EPC)



Koszalin Wastewater Treatment Plant, Poland

**950 kWp, 2021** (EPC)



# **Solar Storage**

Muswellbrook, Australia 39 kWp / 216 kWh, 2014 (EPC, O&M)

Project designed in association with the German Energy Agency, Deutsche Energie-Agentur GmbH (dena), and the Australian communications infrastructure company BAI.



# **Water Treatment and Management**

#### Water Treatment in Latin America, 2018–2020

Treatment of potable water for small and mid-sized communities in the Tacna and Cusco regions in Peru.





#### **Algae Control in Ponds and Reservoirs, Ongoing**

Eco-friendly solutions for the elimination of harmful algae from water resources in popular recreation spots throughout the Czech Republic.



## **Environmental Remediation**

#### In-situ Remediation of PFAS in Groundwater, Australia

Field trial of our patented in-situ technology with the Australian Government Department of Defence.



#### In-situ Remediation of Hydrocarbons in Groundwater, Spain

Currently underway, this project applies our patented in-situ technology in combination with bioremediation.





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