MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is a discussion and analysis of Alternus Energy Group Plc (Company) financial condition and results of operations for the fiscal years ended December 31, 2022 and 2021. You should read this discussion and analysis together with the Company consolidated financial statements and related notes and the other financial information included elsewhere in this prospectus. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under "Risk Factors" and elsewhere in this prospectus, the Company's actual results may differ materially from those anticipated in these forward-looking statements.

Overview

The Company is a global integrated independent power producer. The Company develops, owns and operates a diverse portfolio of utility scale solar photo-voltaic (PV) parks that connect directly to national power grids. The Company's current revenue streams are generated from long-term, government-mandated, fixed price supply contracts with terms of between 15-20 years in the form of government feed in tariffs (FIT) and other energy incentives. Of the Company's current annual revenues, approximately 68% are generated from long-term contracts, 19% are derived from revenues generated under contracted power purchase agreements (PPAs) with energy operators that are renewed on an annual basis and 13% by sales to the general energy market in the countries the Company operates. In general, these contracts generate an average sales rate for every kilowatt hour (kWh) of green energy produced by the Company's solar parks. Having started in 2016 with two parks and a 6 mega-watt peak (MWp) capacity, the Group's current operational portfolio now consists of 48 parks across Poland, Romania, Italy, the Netherlands and Germany, totaling 165.5 MWp. The Company works closely with local and international development partners which provides a consistent pipeline of new projects for acquisition and construction. The Company's goal is to own and operate over 3.5 giga-watts (GWs) of solar parks by the end of 2025 and to become one of the largest pan-European independent power producers (IPPs) by the end of the decade. The Company's current focus is on the European solar PV market. However, the Company is also actively exploring opportunities in other countries outside of Europe.

Alternus Energy Group Plc was incorporated in Dublin, Ireland on January 31, 2019 under the name Alternus Energy International Limited. On October 20, 2020, the Company re-registered as a Plc and changed its name to Alternus Energy Group Plc.

The Company is a former subsidiary of the previous parent company of the Group, Alternus Energy Inc. On December 2, 2020, the Group completed the last step of a reorganization, which resulted in the Company becoming the parent company of the Group (the "Reorganization"). The Reorganization included the following main steps:

- Alternus Energy International Ltd registered as an Irish Plc and changed its name to Alternus Energy Group Plc (previously defined as the "Company");
- The Company incorporated Solis Bond Company, a Designated Activity Company ("Solis Bond Company DAC");
- Alternus Energy Inc. (US) merged with and became a subsidiary of Altam Inc., a U.S.-based entity;
- Alternus Energy Inc. spun out Alternus Energy Plc to the existing shareholders of Altam Inc. in a 1:1.5 share dividend transaction; and
- In a 1:4.5 share exchange transaction, Altam Inc. shareholders exchanged their shares for a pro-rata number of shares of Alternus Energy Group Plc, thus becoming a subsidiary of the Alternus Energy Group Plc as it became the surviving parent company.

The Company is not a manufacturer of solar panels or other related equipment but generates 100% of its revenues from energy sales under long term contracts as described above. By design, the Company currently focuses exclusively on

energy generation and, as a result, the Company is technology agnostic and can customize its solar parks based on local environmental and regulatory requirements and continue to take advantage of falling component prices over time.

The Company uses annual recurring revenues as a key metric in its financial management and believe this method better reflects the long-term stability of operations. Annual recurring revenues is defined as the estimated future revenue based on the remaining term, price and estimated production of the offtake contract of the solar park. It should be noted that the actual revenues reported by the Company in a particular year may be lower than the annual recurring revenues because not all parks may be revenue generating for the full year in their first year of operation. The Company must also account for the timing of acquisitions that take place throughout the financial year.

Impacts of the Ukraine/Russia conflict

The geopolitical situation in Eastern Europe intensified on February 24, 2022, with Russia's invasion of Ukraine. The war between the two countries continues to evolve as military activity proceeds and additional sanctions are imposed. In addition to the human toll and impact of the events on entities that have operations in Russia, Ukraine, or neighboring countries (e.g., Belarus, Poland, Romania) or that conduct business with their counterparties, the war is increasingly affecting economic and global financial markets and exacerbating ongoing economic challenges, including issues such as rising inflation and global supply-chain disruption. These events have not impacted the physical operations of our facilities in Poland or Romania. We have seen increases in energy rates due to inflation and other macro-economic factors.

Impacts of the 2023 Bank Failures and Banking Risk

On March 10, 2023 Silicon Valley Bank became the second largest bank failure to date. This was followed on March 12, 2023 by the failure of Signature Bank, the third largest bank failure in U.S history. These bank failures were the first two in a banking crises that also included Credit Suisse. The Company maintains cash balances in financial institutions which may exceed federally insured limits and is monitoring these events for both current and future liquidity.

Known trends or Uncertainties

The Company has a working capital deficiency and negative equity and management has determined there is doubt about the company's ability to continue as a going concern. Refer to Footnote 2 of the accompanying financial statements.

Competitive Strengths

The Company believes that the following competitive strengths contribute to its success and differentiate the Company from its competitors:

- The Company is an Independent Power Producer and comfortable operating across all aspects of the solar PV value chain from development through long-term operational ownership – as opposed to simply buying operating parks where the high levels of competition from investment companies tend to be. The Company's flexibility makes it a more attractive partner to local developers who benefit from having a single trusted and flexible customer that allows them to plan effectively and grow faster;

- The Company's history of identifying and entering into new solar PV markets coupled with its on-the-ground capabilities and pan-European platform gives the Company potential competitive advantages in developing and operating solar parks across Europe;

- The Company's existing pipeline of contracted solar PV projects provides it with clear and actionable opportunities as well as the ability to cultivate power generation and earnings as these are required;

- The Company is technology and supplier agnostic and as such has the flexibility to choose from a broad range of leading manufacturers, operations and maintenance (O&M) experts, top tier suppliers, and engineering,

procurement, and construction (EPC) vendors across the globe and can benefit from falling component and service costs; and

- The Company is led by a highly experienced management team and has strong, localized execution capabilities across all key functions and locations.

Vision and Strategy

The Company aims to become one of the leading producers of clean energy in Europe and the US by 2030 and to have commenced delivery of 24/7 clean energy to national power grids. The Company's business strategy of developing to own and operate a diverse portfolio of solar PV assets that generate stable long-term incomes, in countries which currently have unprecedented positive market forces, positions us for sustained growth in the years to come.

To achieve its goals, the Company intends to pursue the following strategies:

- Continue our growth strategy which targets acquiring independent solar PV projects that are in development, in construction, newly installed or already operational, in order to build a diversified portfolio across multiple geographies;

- Developer and Agent Relationships: long term relationships with high-quality developer partners, both local and international, can reduce competition in acquisition pricing and provide the Company with exclusive rights to projects at varying stages of development. Additionally, the Company works with established agents across Europe. Working with both groups provides the Company with an understanding of the market and in some cases enables it to contract for projects at the pre- market level. This allows the Company to build a structured pipeline of projects in each country where it currently operates or intends to operate.

- Expand our pan-European IPP portfolio in regions with attractive returns on investments, and increase the Company's long-term recurring revenue and cash flow;

- Long-term FIT (feed-in tariff) contracts combined with the Company's efficient operations are expected to provide for strong and predictable cash flows from projects and allow for high leverage capacity and flexibility of debt structuring. Our strategy is to reinvest of project cash flows into additional solar PV projects to provide non-dilutive capital for Alternus to "self-fund" organic growth;

- Optimization of financing sources to support long-term growth and profitability in a cost-efficient manner;

- As a renewable energy company, we are committed to growing our portfolio of clean energy parks across Europe in the most sustainable way possible. The Company is highly aware and conscious of the ever growing need to mitigate the effects of climate change which is evident by its core strategy. As the Company grows, it intends to establish a formal sustainability policy framework in order to ensure that all project development is carried out in a sustainable manner mitigating any potential localized environmental impacts identified during the development, construction and operational process.

Given the long-term nature of our business, the Company does not operate its business on a quarter-by-quarter basis, but rather, with long-term shareholder value creation as a priority. The Company aims to maximize return for its shareholders by developing its own parks from the ground up — via Altnua — and/or acquiring projects during the development cycle, installation stage, or already operational.

On some projects, the Company will look to provide construction (EPC) services in-house — via Unisun — where the margins normally paid to third parties can be retained in the group and reinvested into new projects reducing the need for additional equity issuances.

We intend that the parks we own and operate will have a positive cash flow with long-term income streams at the lowest possible risk. To this end we use Levelized Cost of Energy ("LCOE") as a key criteria to ranking the projects we consider for development and/or acquisition. The LCOE calculates the total cost of ownership of the parks over their expected life reflected as a rate per megawatt hour (MWh). Once the income rates for the selected projects are higher than this rate, the project will be profitable for its full life — including initial capex costs. The Company will continue to operate with this priority as we continue to invest in internal infrastructure and additional solar PV power plants to increase installed power and resultant stable long-term revenue streams.

Key Factors that Significantly Affect Company Results of Operations and Business

The Company expects the following factors will affect its results of operations; inflation and energy rate increases.

Offtake Contracts

Company revenue is primarily a function of the volume of electricity generated and sold by its renewable energy facilities as well as, where applicable, the sale of green energy certificates and other environmental attributes related to energy generation. The Company's current portfolio of renewable energy facilities is generally contracted under long-term FIT programs or PPAs with creditworthy counterparties. As of December 31, 2022, the average remaining life of its FITs and PPAs was 11.5 years. Pricing of the electricity sold under these FITs and PPAs is generally fixed for the duration of the contract, although some of its PPAs have price escalators based on an index (such as the consumer price index) or other rates specified in the applicable PPA.

The Company also generate Renewable Energy Credit (RECs) as the Company produces electricity. RECs are accounted for as government incentives and are considered operational revenue as part of the solar facilities.

Project Operations and Generation Availability

The Company revenue is a function of the volume of electricity generated and sold by Company renewable energy facilities. The volume of electricity generated and sold by the Company's renewable energy facilities during a particular period is impacted by the number of facilities that have achieved commercial operations, as well as both scheduled and unexpected repair and maintenance required to keep its facilities operational.

The costs the Company incurs to operate, maintain and manage renewable energy facilities also affect results of operations. Equipment performance represents the primary factor affecting the Company's operating results because equipment downtime impacts the volume of the electricity that the Company is able to generate from its renewable energy facilities. The volume of electricity generated and sold by the Company's facilities will also be negatively impacted if any facilities experience higher than normal downtime as a result of equipment failures, electrical grid disruption or curtailment, weather disruptions, or other events beyond the Company's control.

Seasonality and Resource Variability

The amount of electricity produced, and revenues generated by the Company's solar generation facilities is dependent in part on the amount of sunlight, or irradiation, where the assets are located. As shorter daylight hours in winter months result in less irradiation, the electricity generated by these facilities will vary depending on the season. Irradiation can also be variable at a particular location from period to period due to weather or other meteorological patterns, which can affect operating results. As the majority of the Company's solar power plants are located in the Northern Hemisphere (Europe) the Company expects its current solar portfolio's power generation to be at its lowest during the first and fourth quarters of each year. Therefore, the Company expects first and fourth quarter solar revenue to be lower than in other quarters. As a result, on average, each solar park generates approximately 15% of its annual revenues in Q1 every year, 35% in each of Q2

and Q3, and the remaining 15% in Q4. The Company's costs are relatively flat over a year, and so the Company will always report lower profits in Q1 and Q4 as compared to the middle of the year.

Interest Rates on Company Debt

Interest rates on the Company's senior debt are mostly fixed for the full term of the finance at low interest rates ranging from 1.6% to 10%. The relative certainty of cash flows and the fixed nature of the senior debt payments provide sufficient coverage ratios.

In addition to the project specific senior debt, the Company uses a small number of promissory notes in order to reduce, and in some cases eliminate, the requirement for the Company to provide equity in the acquisition of the projects. As of December 31, 2022, 87% of the Company's total liabilities were project-related debt.

Cash Distribution Restrictions

In certain cases, the Company, through its subsidiaries, obtain project-level or other limited or non-recourse financing for Company renewable energy facilities which may limit these subsidiaries' ability to distribute funds to the Company for corporate operational costs. These limitations typically require that the project-level cash is used to meet debt obligations and fund operating reserves of the operating subsidiary. These financing arrangements also generally limit the Company's ability to distribute funds generated from the projects if defaults have occurred or would occur with the giving of notice or the lapse of time, or both.

Renewable Energy Facility Acquisitions and Investments

The Company's long-term growth strategy is dependent on its ability to acquire additional renewable power generation assets. This growth is expected to be comprised of additional acquisitions across the Company's scope of operations both in its current focus countries and new countries. Our operating revenues are insufficient to fund our operations and our assets already are pledged to secure our indebtedness to various third party secured creditors, respectively. The unavailability of additional financing could require us to delay, scale back or terminate our acquisition efforts as well as our own business activities, which would have a material adverse effect on the Company and its viability and prospects.

Management believes renewable power has been one of the fastest growing sources of electricity generation globally over the past decade. The Company expects the renewable energy generation segment to continue to offer growth opportunities driven by:

- The continued reduction in the cost of solar and other renewable energy technologies, which the Company believes will lead to grid parity in an increasing number of markets;

- Distribution charges and the effects of an aging transmission infrastructure, which enable renewable energy generation sources located at a customer's site, or distributed generation, to be more competitive with, or cheaper than, grid-supplied electricity;

- The replacement of aging and conventional power generation facilities in the face of increasing industry challenges, such as regulatory barriers, increasing costs of and difficulties in obtaining and maintaining applicable permits, and the decommissioning of certain types of conventional power generation facilities, such as coal and nuclear facilities;

- The ability to couple renewable energy generation with other forms of power generation and/or storage, creating a hybrid energy solution capable of providing energy on a 24/7 basis while reducing the average cost of electricity obtained through the system;

- The desire of energy consumers to lock in long-term pricing for a reliable energy source;

- Renewable energy generation's ability to utilize freely available sources of fuel, thus avoiding the risks of price volatility and market disruptions associated with many conventional fuel sources;
- Environmental concerns over conventional power generation; and
- Government policies that encourage the development of renewable power, such as country, state or provincial renewable portfolio standard programs, which motivate utilities to procure electricity from renewable resources.

Access to Capital Markets

The Company's ability to acquire additional clean power generation assets and manage its other commitments will likely be dependent on its ability to raise or borrow additional funds and access debt and equity capital markets, including the equity capital markets, the corporate debt markets, and the project finance market for project-level debt. The Company accessed the capital markets several times in 2021 and 2022, in connection with long-term project debt, and corporate loans and equity. Limitations on the Company's ability to access the corporate and project finance debt and equity capital markets in the future on terms that are accretive to its existing cash flows would be expected to negatively affect its results of operations, business, and future growth.

Foreign Exchange

The Company's operating results are reported in United States (U.S.) Dollars. The Company's current project revenue and expenses are generated in other currencies, including the Euro, the Polish Zloty (PLN), the Romanian Lei (RON), and the Norwegian Krone (NOK). This mix may continue to change in the future if the Company elects to alter the mix of its portfolio within its existing markets or elect to expand into new markets. In addition, the Company's investments (including intercompany loans) in renewable energy facilities in foreign countries are exposed to foreign currency fluctuations. As a result, the Company expects revenue and expenses will be exposed to foreign exchange fluctuations in local currencies where the Company's renewable energy facilities are located. To the extent the Company does not hedge these exposures, fluctuations in foreign exchange rates could negatively impact profitability and financial position.

Installation Costs for Solar Projects

Installation costs for solar projects include the costs of construction, connection to the power grid and procurement of components. The most significant contributor to installation costs is the cost of components such as solar panels, modules, inverters and mounting systems. The Company's supplier and technology agnosticism combined with its effective supply chain management and strong relationships with equipment suppliers have enabled them historically to purchase equipment at relatively competitive technical performance, prices, terms and conditions.

In recent years, the prices of modules, inverters and mounting systems have decreased as a result of oversupply and improving technology. As the costs of the Company's components have decreased, its solar parks have become more cost competitive, and its profitability has increased. As a result, the Company's solar parks have begun to offer electricity at increasingly competitive rates, which has increased the attractiveness of its investment return and revenue. The Company expects that solar modules will continue to experience cost reductions from 2023 onwards when production and supply chains have recovered from the impact of the COVID-19 pandemic. Moreover, newly commercialized PV technologies are expected to further drive down installation costs and increase the energy output of PV systems, which could further increase the competitiveness of the Company's solar parks[1] and allow solar energy to achieve grid parity in more and more markets.

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[1] IRENA Renewable Power Generation Costs 2020.

Key Metrics

Operating Metrics

The Company regularly reviews several operating metrics to evaluate its performance, identify trends affecting its business, formulate financial projections and make certain strategic decisions. The Company considers a solar park operating when it has achieved connection and begins selling electricity to the energy grid.

Operating Nameplate capacity

The Company measures the electricity-generating production capacity of its renewable energy facilities in nameplate capacity. The Company expresses nameplate capacity in direct current (DC), for all facilities. The size of the Company's renewable energy facilities varies significantly among the assets comprising its portfolio.

The Company believes the combined nameplate capacity of its portfolio is indicative of its overall production capacity and period to period comparisons of its nameplate capacity are indicative of the growth rate of its business. The table below outlines the Company's operating renewable energy facilities as of December 31, 2022 and 2021.

	Year Ended December 31,	
MWs (DC) Nameplate capacity by country	**2022**	**2021**
Romania	40.1	41.5
Italy	10.5	10.5
Germany	0.7	1.1
Netherlands	25.4	11.8
Poland	88.4	77.6
United States	0.4	—
Total	**165.5**	**142.5**

Megawatt hours sold

Megawatt hours sold refers to the actual volume of electricity sold by the Company's renewable energy facilities during a particular period. The Company tracks MWh sold as an indicator of its ability to realize cash flows from the generation of electricity at its renewable energy facilities. The Company's MWh sold for renewable energy facilities for the years ended December 31, 2022 and 2021, were as follows:

	Year Ended December 31,	
MWhs by country	**2022**	**2021**
Romania	52,193	42,855
Italy	11,282	10,611
Germany	612	1,119
Netherlands	25,187	11,285
Poland	98,340	20,146
United States	-	-
Total	**187,614**	**86,016**

Note: In 2022, the US had .3 of a MWh, which is not depicted in the table. There was no US activity in 2021.

Consolidated Results of Operations

The following table illustrates the consolidated results of operations for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
Revenues	$ 32,526	$ 21,393
Operating Expenses:		
Cost of revenues	(9,224)	(7,165)
Selling, general and administrative	(11,139)	(7,525)
Depreciation, amortization, and accretion	(7,157)	(5,382)
Fixed asset impairment loss	—	(4,171)
Total operating expenses	$ (27,520)	$ (24,243)
Income/(Loss) from operations	5,006	(2,850)
Other income/ (expense):		
Interest expense	(17,437)	(16,930)
Development Cost	(23,925)	—
Other income	1,275	2,995
Other expenses	(1,059)	(1,630)
Loss on disposal of asset	(139)	
Total other expense	$ (41,285)	$ (15,565)
Loss before provision for income taxes	(36,279)	(18,415)
Income taxes	(5)	(518)
Net loss	**$ (36,284)**	**$ (18,933)**
Net loss attributable to non-controlling interest	**(484)**	**(178)**
Net loss attributable to Alternus Energy Group	**$ (35,800)**	**(18,755)**
Basic and diluted loss per share	($1.36)	($0.87)
Weighted average shares outstanding:		
Basic and Diluted shares	26,360,231	21,612,271
Comprehensive loss:		
Net loss	(36,284)	(18,933)
Foreign currency translation adjustment	(1,200)	682
Comprehensive loss	**$ (37,484)**	**$ (18,251)**

Fiscal Year Ended December 31, 2022 compared to December 31, 2021.

The Company generates its revenue from the sale of electricity from its solar parks. The revenue is from a FIT program, PPA or REC in the day-ahead-market or spot market.

Revenue

Revenue for the year ended December 31, 2022 and 2021 were as follows:

Revenue, by Country	Year Ended December 31, 2022	2021	Change
	(in thousands)		
Italy	$ 3,354	$ 3,665	$ (311)
Romania	13,710	13,964	(254)
Germany	201	187	14
Netherlands	4,528	1,340	3,188
Poland	10,709	2,237	8,472
United States	24	—	24
Total	**$ 32,526**	**$ 21,393**	**$ 11,133**

Revenue increased by $11.1 million for the year ended 2022 compared to 2021. The increase was due to full year production of 2 parks purchased in December 2021 and 3 parks purchased in March 2022 in Poland, which generated revenue of $4.7 million, and one new park in the Netherlands that generated $2.7 million and increased energy rates across Europe in 2022 compared to 2021.

Revenue, by Offtake Type	Year Ended December 31, 2022	2021	Change
	(in thousands)		
Country Renewable Programs	$ 5,016	$ 4,133	$ 883
Green Certificates	9,452	8,427	1,025
Energy Offtake Agreements	17,888	8,833	9,055
Other Revenue	170	—	170
Total	**$ 32,526**	**$ 21,393**	**$ 11,133**

Cost of Revenues

The Company capitalizes its equipment costs, development costs, engineering and construction related costs, that are deemed recoverable. The Company's cost of revenues with regards to its IPP solar parks is primarily a result of the asset management, operations and maintenance, as well as tax, insurance, and lease expenses. Certain economic incentive programs, such as FIT regimes, generally include mechanisms that ratchet down incentives over time. As a result, the Company seeks to connect its IPP solar parks to the local power grids and commence operations in a timely manner to benefit from more favorable existing incentives. Therefore, the Company generally seeks to make capital investments during times when incentives are most favorable.

Cost of revenues for the years ended December 31, 2022 and 2021 were as follows:

Cost of Revenues, by Country	Year Ended December 31,		
	2022	**2021**	**Change**
	(in thousands)		
Italy	$ 812	$ 711	$ 101
Romania	3,628	5,256	(1,628)
Germany	42	50	(8)
Netherlands	600	487	113
Poland	4,142	661	3,481
United States	—	—	—
Total	**$ 9,224**	**$ 7,165**	**$ 2,059**

Cost of revenues increased by $2.1 million for the year ended 2022 compared to 2021. The increase was primarily due to full year operation in Poland partially offset by less energy acquisition cost in Romania.

Selling, General and Administrative Expenses

Selling, general and administrative expenses for the years ended December 31, 2022 and 2021 were as follows:

	Year Ended December 31,		
	2022	**2021**	**Change**
	(in thousands)		
Selling, general & administrative expenses	11,139	7,525	3,614
Total	**$ 11,139**	**$ 7,525**	**$ 3,614**

Selling, general and administrative expenses increased by $3.6 million for the year ended 2022 compared to 2021. This was mainly due to increase in payroll and related expenses of $2.6 million, as an investment for the future growth of the company.

Acquisition Costs

As discussed in Note 5 - Business Combinations and Acquisitions of Assets to its consolidated financial statements, the Company acquired one special purpose vehicle (SPV) system in April 2021 which was considered a business combination under United States (U.S.) generally accepted accounting principles (GAAP) and acquisition costs were expensed. The Company acquired one SPV system in February 2021, four SPVs in March 2021, one SPV in April 2021, two SPVs in May 2021, one SPV in August 2021 and two SPVs in December of 2021. These projects were considered asset acquisitions under U.S. GAAP and therefore the acquisition costs were capitalized over the life of the asset acquired.

The Company acquired three SPVs in March 2022 in Poland, all accounted for as asset acquisitions under ASC 805 Refer to Footnote 4 Business Combination and Acquisitions of Assets for more information.

Depreciation, Amortization and Accretion Expense

Depreciation, amortization and accretion expenses for the years ended December 31, 2022 and 2021 were as follows:

	Year Ended December 31,		
	2022	2021	Change
	(in thousands)		
Depreciation, Amortization and Accretion expense	7,157	5,382	1,775
Total	**$ 7,157**	**$ 5,382**	**$ 1,775**

Depreciation, amortization and accretion expenses increased by $1.8 million for the year ended December 31, 2022, compared to 2021, primarily as a result of incremental depreciation, amortization and accretion associated with the acquisition of the assets in Romania, Italy and Poland, and a full year of amortization related to the Romanian assets.

Interest Expense, Development Cost, Other Income, and Other Expense

	Year Ended December 31,		
	2022	2021	Change
	(in thousands)		
Interest Expense	$ (17,437)	$ (16,930)	$ (507)
Development Cost	$ (23,925)	$ —	$ (23,925)
Other Income	$ 1,275	$ 2,995	$ (1,720)
Other Expense	$ (1,059)	$ (1,630)	$ 571
Total	**$ (41,146)**	**$ (15,565)**	**$ (25,581)**

Development cost was $23.9 million for the year ended December 31, 2022, due to abandoning the development of renewable energy projects in Poland. The Company depends heavily on government policies that support our business and enhance the economic feasibility of developing and operating solar energy projects in regions in which we operate or plan to develop and operate renewable energy facilities. The Company can decide to abandon a project if there is material change in budgetary constraints, political factors or otherwise, governments from time to time may review their laws and policies that support renewable energy and consider actions that would make the laws and policies less conducive to the development and operation of renewable energy facilities. Any reductions or modifications to, or the elimination of, governmental incentives or policies that support renewable energy or the imposition of additional taxes or other assessments on renewable energy, could result in, among other items, the lack of a satisfactory market for the development and/or financing of new renewable energy projects, our abandoning the development of renewable energy projects, a loss of our investments in the projects and reduced project returns, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Refer to Footnote 18 to the accompanying financial statements for more detail of development cost.

Interest Expense includes the interest associated with the Company's green bonds, convertible and non-convertible promissory notes, and amortization of debt issuance costs. Interest expense and debt issuance cost were $13 million and $4.4 million respectively for the year ended December 31, 2022.

Net Loss

Net loss increased by $17.3 million for the year ended 2022 compared to 2021. The increase was a result of increased interest expense of $13 million and development costs of $23.9 million. The increase was partially offset by an increase in revenues of $11.1 million which was a result of full year operations of acquired parks in Poland.

Liquidity and Capital Resources

Capital Resources

A key element to the Company's financing strategy is to raise the majority of its debt in the form of project specific non-recourse borrowings at its subsidiaries with investment grade metrics. Going forward, the Company intends to primarily finance acquisitions or growth capital expenditures using long-term non-recourse debt that fully amortizes within the asset's contracted life, as well as retained cash flows from operations and issuance of equity securities through public markets.

The following table summarizes certain financial measures that are not calculated and presented in accordance with U.S. GAAP, along with the most directly comparable U.S. GAAP measure, for each period presented below. In addition to its results determined in accordance with U.S. GAAP, the Company believes the following non- U.S. GAAP financial measures are useful in evaluating its operating performance. The Company uses the following non-U.S. GAAP financial information, collectively, to evaluate its ongoing operations and for internal planning and forecasting purposes.

The following non-U.S. GAAP table summarizes the total capitalization and debt as of December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	**2021**
	(in thousands)	
Green bonds	$ 149,481	$ 147,238
Convertible debt, secured	9,609	10,193
Senior secured debt and promissory notes	33,500	20,261
Total debt	192,590	177,692
Less current maturities	(21,631)	(6,077)
Long term debt, net of current maturities	170,959	171,615
Less debt discount	(4,532)	(8,026)
Long term debt, net of debt discount	**$ 166,427**	**$ 163,589**

	Year Ended December 31,	
	2022	**2021**
	(in thousands)	
Cash and cash equivalents	$ 2,987	$ 18,027
Restricted cash	6,598	8,554
Available capital	**$ 9,585**	**$ 26,581**

Restricted Cash relates to balances that are in the bank accounts for specific defined purposes and cannot be used for any other undefined purposes. Refer to Footnote 3 - Summary of Significant Accounting Policies for further discussion of restricted cash.

Liquidity Position

Our consolidated financial statements for the year ended December 31, 2022 identifies the existence of certain conditions that raise substantial doubt about our ability to continue as a going concern for twelve months from the issuance of this report. Refer to Footnote 2 of the accompanying financial statements for more information.

Financing Activities

On December 21, 2022, Alternus Energy Group's wholly owned Irish subsidiaries, AEG JD 01 LTD and AEG MH 03 LTD entered in a financing facility with Deutsche Bank AG ("Lender"). This is a committed revolving debt financing of EUR 80,000,000 to finance eligible project costs for the acquisition, construction, and operation of installation/ready to build solar PV plants across Europe, including the capacity for the financing to be upsized via a EUR 420,000,000 uncommitted accordion facility to finance a pipeline of further projects across Europe (the "Warehouse Facility"). The Warehouse Facility, which matures on the third anniversary of the closing date of the Credit Agreement (the "Maturity Date"), bears interest at Euribor plus an aggregate margin at a market rate for such facilities, which steps down by 0.5% once the underlying non-Euro costs financed reduces below 33.33% of the overall costs financed. The Warehouse Facility is not currently drawn upon, but once drawn, capitalizes interest payments until projects reach their commercial operations dates through to the Maturity Date; it also provides for mandatory prepayments in certain situations.

Material Cash Requirements from Known Contractual Obligations

The Company's contractual obligations consist of operating leases generally related to the rent of office building space, as well as land upon which the Company's solar parks are built. These leases include those that have been assumed in connection with the Company's asset acquisitions and business combinations. The Company's leases are for varying terms and expire between 2027 and 2055.

For the years ending December 31, 2022 and 2021, the Company incurred operating lease expenses of $987 thousand and $309 thousand, respectively. The following table summarizes the Company's future minimum contractual operating lease payments as of December 31, 2022.As a part of the Witnica acquisition, the company acquired an operating lease to the land where the solar park is located. The estimated annual cost of the lease is $335 thousand. The lease commenced in 2021 and runs through 2050.

As a part of the Zachod acquisition, the company acquired several operating leases to the land where the solar parks are located. The estimated annual cost of the leases is $57 thousand. The lease commenced in 2021 and runs through 2045.

As a part of the Komorowo acquisition, the company acquired two operating leases to the land where the solar parks are located. The combined estimated annual cost of the leases is $75 thousand. The leases commenced in 2021 and run through 2046.

As a part of the Rakowic acquisition, the company acquired an operating lease to the land where the solar parks are located. The combined estimated annual cost of the leases is $6 thousand. The leases commenced in 2022 and run through 2046.

As a part of the Blue Sky Energy I.B.V. acquisition in 2021, the company acquired an operating lease to the land where the solar park is located. The estimated annual cost of the leases is $83 thousand. The leases commenced in 2021 and runs through 2046.

In March 2022, the Company entered a new lease for additional office space in Ireland with a term of 9 years. The estimated annual cost of the lease is $136 thousand.

In April 2022, the Company entered a new lease for office space in the US with a term of 7.5 years. The estimated annual cost of the lease is $147 thousand.

Maturities of lease liabilities as of December 31, 2022 were as follows:

Five-year lease schedule:	(in thousands)
2023	$ 793
2024	842
2025	865
2026	889
2027	913
Thereafter	16,236
Total lease payments	20,538
Less imputed interest	11,110
Total	$ 9,428

Cash Flow Discussion

The Company uses traditional measures of cash flow, including net cash flows from operating activities, investing activities and financing activities to evaluate its periodic cash flow results.

For the Year Ended December 31, 2022 compared to December 31, 2021

The following table reflects the changes in cash flows for the comparative periods:

	Year Ended December 31,		
	2022	2021	Change
	(in thousands)		
Net cash (used in) operating activities	$ (17,848)	$ (8,324)	$ (9,524)
Net cash (used in) investing activities	(23,631)	(127,483)	103,852
Net cash provided by financing activities	29,984	161,232	(131,248)
Effect of exchange rate on cash	(2,502)	(592)	(1,910)

Net Cash Used In Operating Activities

Net cash used in operating activities for the year ended December 31, 2022 compared to 2021 decreased by $9.5 million. The net loss increased by $17.3 million in 2022, which was mainly due to the increase in development cost of $23.9 million. This was partially offset by the increase in revenues of $11.1 million, mainly related to a full year operations of parks acquired in 2021 and higher energy rates throughout Europe in 2022.

Net Cash Used In Investing Activities

Net cash used in investing activities for the year ended December 31, 2022 compared to 2021 decreased by $103.9 million. This decrease was due to no acquisitions in 2022 compared to the $118.5 million of acquisitions in 2021 in the Netherlands, Romania, Poland and Italy in 2021.

Net Cash Provided by Financing Activities

Net cash provided by financing activities for the year ended December 31, 2022 compared to 2021 decreased by $134.2 million due to the issuance of Green Bonds and other debt of $168.7 million and the issuance of Equity in 2021.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with U.S. GAAP requires the Company to make estimates and assumptions in certain circumstances that affect amounts reported in its consolidated financial statements and related footnotes. In preparing these consolidated financial statements, the Company has made its best estimates of certain amounts included in the consolidated financial statements. Application of accounting policies and estimates, however, involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. In arriving at the Company's critical accounting estimates, factors the Company considers include how accurate the estimate or assumptions have been in the past, how much the estimate or assumptions have changed and how reasonably likely such change may have a material impact. The Company's critical accounting policies are discussed below.

JOBS Act Accounting Election

The Company is an emerging growth company pursuant to the provisions of the Jumpstart Our Business Start-ups (JOBS) Act. For as long as the Company is an emerging growth company, the Company may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. The JOBS Act also permits an emerging growth company to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. The Company has elected to use the extended transition period until the Company is no longer an emerging growth company or until the Company chooses to affirmatively and irrevocably opt out of the extended transition period. As a result, Company financial statements may not be comparable to companies that comply with new or revised accounting pronouncements applicable to public companies.

Business Combinations

The Company acquires assets which are operating in nature with existing revenue streams and assets which are constructed for the purpose of being sold. The company applies the screen test per ASC 805 to determine an asset acquisition versus business combination and accounts for business combinations by recognizing in the financial statements the identifiable assets acquired, the liabilities assumed, and any non-controlling interests in the acquiree at fair value at the acquisition date. The Company also recognizes and measures the goodwill acquired or a gain from a bargain purchase in the business combination and determine what information to disclose to enable users of an entity's financial statements to evaluate the nature and financial effects of the business combination. In addition, acquisition costs related to business combinations are expensed as incurred. Cost directly attributed to an asset acquisition are capitalized to the asset per ASC 805 Business combinations is a critical accounting policy as there are significant judgments involved in the allocation of acquisition costs and determining the fair value of the net assets acquired. Refer to Footnote 2 to the accompanying financial statements for more information.

When the Company acquires renewable energy facilities, the Company allocates the purchase price to; (i) the acquired tangible assets and liabilities assumed, primarily consisting of plant equipment and long-term debt, (ii) the identified intangible assets and liabilities, primarily consisting of the value of favorable and unfavorable rate PPAs and REC agreements and the in-place value of market rate PPAs, (iii) non-controlling interests, and (iv) other working capital items based in each case on their fair values in accordance with ASC 805.

The Company performs the analysis of the acquisition using income approach valuation methodology . Factors considered by management in its analysis include considering current market conditions and costs to construct similar facilities. The Company also considers information obtained about each facility as a result of the Company's pre-acquisition due diligence in estimating the fair value of the tangible and intangible assets and liabilities acquired or assumed. In estimating the fair value, the Company also establishes estimates of energy production, current in-place and market power purchase rates, tax credit arrangements and operating and maintenance costs. A change in any of the assumptions above, which are subjective, could have a significant impact on the results of operations.

The allocation of the purchase price directly affects the following items in the Company consolidated financial statements:

- The amount of purchase price allocated to the various tangible and intangible assets, liabilities and non-controlling interests on the Company balance sheet;

- The amounts allocated to current assets or current liabilities are allocated at the acquisition, value. The amounts allocated to long term tangible assets and intangibles are amortized to depreciation or amortization expense, and

- The period of time over which tangible and intangible assets and liabilities are depreciated or amortized varies, and thus, changes in the amounts allocated to these assets and liabilities will have a direct impact on Company results of operations.

Impairment of Renewable Energy Facilities and Intangibles

Renewable energy facilities and intangibles that are held and used are reviewed for impairment whenever events or changes in circumstances indicate carrying values may not be recoverable. An impairment loss is recognized if the total future estimated undiscounted cash flows expected from an asset are less than its carrying value. An impairment charge is measured as the difference between an asset's carrying amount and its fair value. Fair values are determined by a variety of valuation methods, including appraisals, sales prices of similar assets and present value techniques.

Impairment of Goodwill

A qualitative assessment of Goodwill is performed annually for impairment at the individual project level during the fourth quarter or earlier upon the occurrence of certain events or substantive changes in circumstances. If it is determined that an impairment has occurred, the Company adjusts the carrying value accordingly, and charges the impairment as an operating expense in the period the determination is made. Although the Company believes goodwill is appropriately stated in the consolidated financial statements, changes in strategy or market conditions could significantly impact these judgments and require an adjustment to the recorded balance. The Company did not have any impairment of goodwill or long-lived intangible assets.

In assessing goodwill for impairment, the Company may elect to use a qualitative assessment to determine whether the existence of events or circumstances leads to a determination that it is more-likely-than-not that the fair value of its reporting units are less than their carrying amounts. If the Company determines that it is not more-likely-than-not that the fair values of its reporting units are less than their carrying amounts, the Company are not required to perform any additional tests in assessing goodwill for impairment. However, if the Company concludes otherwise or elects not to perform the qualitative assessment, then the Company is required to perform the quantitative impairment test. The qualitative assessment performed in 2022 did not indicate an impairment of Goodwill, thus no quantitative assessment was performed.

Depreciable lives of Long-lived Assets

The Company has significant investments in renewable energy facility assets. These assets are generally depreciated on a straight-line basis over their estimated useful lives which range from 15 to 35 years for the Company's solar generation facilities.

The estimation of asset useful lives requires significant judgment. Changes in Company estimated useful lives of renewable energy facilities could have a significant impact on its future results of operations. See Note 3. Summary of Significant Accounting Policies to Company consolidated financial statements regarding depreciation and estimated service lives of its renewable energy facilities.

Recently Issued Accounting Standards

See Note 3 Summary of Significant Accounting Policies to Company consolidated financial statements for its year end audited financial statements for disclosures concerning recently issued accounting standards.

Quantitative and Qualitative Disclosures About Market Risk

Market Risk

The Company has no derivative financial instruments or derivative commodity instruments.

Foreign Currency Risk

The Company is exposed to foreign currency risk as a result of certain transactions and borrowings which are denominated in foreign currencies. The Company's current asset portfolio generates revenue and incurs expenses in other currencies, including the Euro, the Polish Zloty the Romanian Lei and the Norwegian Krone.

In addition, the Company is exposed to currency risk associated with translating its functional currency financial statements into its reporting currency, which is the U.S. dollar. As a result, the Company is exposed to movements in the exchange rates of various currencies against the U.S. dollar.

The Company manages its exposure to currency risk by commercially transacting in the currencies in which the Company materially incurs operating expenses. The Company limits the extent to which it incurs operating expenses in other currencies, wherever possible, thereby minimizing the realized and unrealized foreign exchange gain/ loss. The currency of the Company's borrowing is, in part, matched to the currencies expected to be generated from the Company's operations. Intercompany funding is typically undertaken in the functional currency of the operating entities or undertaken to ensure offsetting currency exposures.

As of December 31, 2022, had the U.S. dollar strengthened by 1% in relation to all the other currencies, while all other variables held constant, the total assets of the Company would have decreased by $2.1 million. A weakening of the U.S. dollar by 1% against the above currencies would have had an equal and opposite effect.

As of December 31, 2022, had the U.S. dollar strengthened by 1% in relation to all the other currencies, while all other variables held constant, the net assets of the Company would have decreased in both losses and equity by $0.2 million. A weakening of the U.S. dollar by 1% against the above currencies would have had an equal and opposite effect.

Interest Rate Risk

Fluctuations in interest rates can impact the value of investments and financing activities, giving rise to interest rate risk. The debt of the Company is comprised of different instruments, which bear interest at either fixed or floating interest rates. The ratio of fixed and floating rate instruments in the loan portfolio is monitored and managed. Refer to Footnote 13 – Green Bonds, Convertible and Non-convertible Promissory Notes for more information.

The Company believes that the interest rates on all borrowings compare favorably with those rates available in the market.

Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

The Company has not had any disagreements with its accountants on accounting and financial disclosure reportable under Item 16-F of Form 20-F.

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ALTERNUS ENERGY GROUP PLC AND SUBSIDIARIES

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of

Alternus Energy Group Plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Alternus Energy Group Plc and Subsidiaries ('the Company') as of December 31, 2022 and 2021 and the related consolidated statements of operations and comprehensive income/loss, consolidated statements of changes in shareholders' equity/(deficit), and consolidated statements of cash flows for each of the years in the two-year period ended December 31, 2022 and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph Regarding Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in note 2, the Company has a significant working capital deficiency, has incurred significant losses and needs to raise additional funds to meet its obligations and sustain its operations. The Company announced that its wholly owned subsidiary, Solis Bond Company Dac is in breach of three financial covenants under Solis Bond terns and at the date of this opinion has been granted a temporary waiver until 30 June 2023. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ('PCAOB') and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Mazars

We have served as the Company's auditor since 2022.

Mazars
Dublin, Ireland
April 13, 2023

ALTERNUS ENERGY GROUP PUBLIC LIMITED COMPANY AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEET
AS OF DECEMBER 31, 2022 and 2021
(in thousands, except share and per share data)

	Year Ended December 31,	
ASSETS	**2022**	**2021**
Current Assets		
Cash and cash equivalents	$ 2,987	$ 18,027
Accounts receivable, net	5,916	4,677
Unbilled energy incentives earned	4,954	3,139
Prepaid expenses and other current assets	4,409	2,039
Taxes recoverable	1,876	5,461
Total Current Assets	**20,142**	**33,343**
NON-CURRENT ASSETS		
Property and equipment, net	161,793	160,358
Right of use asset	9,700	—
Goodwill	1,758	1,903
Restricted cash	6,598	8,554
Other receivable	1,272	2,045
Capitalized development cost and other long-term assets	7,266	3,286
Total Assets	**$ 208,529**	**$ 209,489**
LIABILITIES AND SHAREHOLDERS' EQUITY (DEFICIT)		
Current Liabilities		
Accounts payable	$ 14,438	$ 12,441
Accrued liabilities	9,884	5,292
Taxes payable	1,135	1,734
Deferred income	4,954	3,139
Right of asset liability - short term	556	—
Convertible and non-convertible promissory notes, net	17,296	1,659
Total Current Liabilities	**48,263**	**24,265**
Green bonds	149,481	147,238
Convertible and non-convertible promissory notes, net	21,281	20,769
Right of asset liability - long term	8,872	—
Asset retirement obligations	1,461	625
Total Liabilities	**$ 229,358**	**$ 192,897**
Shareholders' Equity/(Deficit)		
Common stock, $0.012 par value, 100,000,000 authorized as of December 31, 2022 and 2021; 26,365,738 issued and outstanding as of December 31, 2022 and 26,335,738 issued and outstanding as of December 31, 2021	$ 305	$ 305
Additional paid in capital	52,006	51,943
Foreign Currency Translation Reserve	(612)	588
Accumulated deficit	(72,028)	(36,228)
Non-controlling interest	(500)	(16)
Total Shareholders' Equity (Deficit)	**$ (20,829)**	**16,592**
Total Liabilities and Shareholders' Deficit	**$ 208,529**	**$ 209,489**

The accompanying notes are an integral part of these consolidated financial statements

ALTERNUS ENERGY GROUP PUBLIC LIMITED COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF OPERATIONS AND COMPREHENSIVE INCOME/ (LOSS)
FOR THE YEARS ENDED DECEMBER 31, 2022 and 2021
(in thousands, except share and per share data)

	Year Ended December 31,	
	2022	**2021**
Revenues	$ 32,526	$ 21,393
Operating Expenses:		
Cost of revenues	(9,224)	(7,165)
Selling, general and administrative	(11,139)	(7,525)
Depreciation, amortization, and accretion	(7,157)	(5,382)
Fixed asset impairment loss	—	(4,171)
Total operating expenses	$ (27,520)	$ (24,243)
Income/(Loss) from operations	5,006	(2,850)
Other income/ (expense):		
Interest expense	(17,437)	(16,930)
Development Cost	(23,925)	—
Other income	1,275	2,995
Other expenses	(1,059)	(1,630)
Loss on disposal of asset	(139)	
Total other expense	$ (41,285)	$ (15,565)
Loss before provision for income taxes	(36,279)	(18,415)
Income taxes	(5)	(518)
Net loss	**$ (36,284)**	**$ (18,933)**
Net loss attributable to non-controlling interest	**(484)**	**(178)**
Net loss attributable to Alternus Energy Group	**$ (35,800)**	**(18,755)**
Basic and diluted loss per share	($1.36)	($0.87)
Weighted average shares outstanding:		
Basic and Diluted shares	26,360,231	21,612,271
Comprehensive loss:		
Net loss	(36,284)	(18,933)
Foreign currency translation adjustment	(1,200)	682
Comprehensive loss	**$ (37,484)**	**$ (18,251)**

The accompanying notes are an integral part of these consolidated financial statements

ALTERNUS ENERGY GROUP PUBLIC LIMITED COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY/ (DEFICIT)
FOR THE YEARS ENDED DECEMBER 31, 2022 and 2021 (Restated)
(in thousands, except share amounts)

	Class A Common stock		Paid-In	Foreign Currency Translation	Accumulated	Total Shareholders'	Non-Controlling	
	Shares	Amount	Capital	Reserve	Deficit	Equity	Interest	Total
December 31, 2020	**9,810,454**	**$ 118**	**$ 15,681**	**$ (94)**	**$ (17,473)**	**$ (1,768)**	**$ —**	**$ (1,768)**
Conversion of notes	295,920	3	925	—	—	928	—	928
Unisun acquisition NCI							162	162
Sale of Class A common stock	16,136,364	183	35,130	—	—	35,313	—	35,313
Issuance of share - Unisun	50,000	1	151	—	—	152	—	152
Employee stock options	43,000	—	56	—	—	56	—	56
Foreign currency translation adjustment	—	—	—	682	—	682	—	682
Net Loss	—	—	—	—	(18,755)	(18,755)	(178)	(18,933)
Balance at December 31, 2021	**26,335,738**	**$ 305**	**$ 51,943**	**$ 588**	**$ (36,228)**	**$ 16,608**	**$ (16)**	**$ 16,592**
Issuance of shares for services	30,000	—	63	—	—	63	—	63
Foreign currency translation adjustment	—	—	—	(1,200)	—	(1,200)	—	(1,200)
Net Loss	—	—	—	—	(35,800)	(35,800)	(484)	(36,283)
Balance at December 31, 2022	**26,365,738**	**$ 305**	**$ 52,006**	**$ (612)**	**$ (72,028)**	**$(20,329)**	**$ (500)**	**$ (20,829)**

The accompanying notes are an integral part of these consolidated financial statements

ALTERNUS ENERGY GROUP PUBLIC LIMITED COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF CASH FLOW
FOR THE YEARS ENDED DECEMBER 31, 2022 and 2021
(in Thousands)

	Year Ended December 31,	
	2022	2021
Net loss	$ (36,284)	$ (18,933)
Adjustments to reconcile net loss to net cash used in operations		
Depreciation, amortization and accretion	7,157	5,382
Non-cash right of use asset amortization	876	—
Amortization of debt discount	4,394	4,241
(Gain)/Loss on Disposal of assets	139	(862)
Intercompany write offs	—	(53)
Stock compensation costs, directors and officers	63	419
Fixed asset impairment loss	—	4,171
Changes in assets and liabilities, net of effects of acquisitions:		
Accounts receivable and other short-term receivables	531	(11,656)
Prepaid expenses and other assets	(1,597)	1,856
Accounts payable and accrued liabilities	7,805	7,111
Operating lease liabilities	(932)	—
Net Cash used in Operating Activities	**$ (17,848)**	**$ (8,324)**
Cash Flows from investing Activities:		
Capital expenditures	(7,448)	(10,754)
Payments to acquire renewable energy facilities from third parties, net of cash acquired	(12,204)	(116,333)
Cash paid for development of assets	(3,979)	—
Acquisition of subsidiary	—	(396)
Net Cash Used in Investing Activities	**$ (23,631)**	**$ (127,483)**
Cash Flows from Financing Activities:		
Proceeds from issuance of Class A common stock	—	35,312
Payments of debt principal, senior debt	(4,123)	(41,827)
Proceeds from debt, senior debt	31,107	168,757
Payments on capital leases – principal	—	(1,010)
Net Cash Provided by Financing Activities	**$ 26,984**	**$ 161,232**
Effect of exchange rate on cash	(2,501)	(592)
Net decrease in cash, cash equivalents and restricted cash	**$ (16,996)**	**$ 24,833**
Cash, cash equivalents, and restricted cash beginning of the year	26,581	1,748
Cash, cash equivalents, and restricted cash end of the year	**$ 9,585**	**$ 26,581**
Cash Reconciliation		
Cash and cash equivalents	2,987	18,027
Restricted cash	6,598	8,554
Cash, cash equivalents, and restricted cash end of the year	**$ 9,585**	**$ 26,581**

The accompanying notes are an integral part of these consolidated financial statements

ALTERNUS ENERGY GROUP PUBLIC LIMITED COMPANY AND SUBSIDIARIES
CONSOLIDATED SUPPLEMENTAL STATEMENT OF CASH FLOW
FOR THE YEARS ENDED DECEMBER 31, 2022 and 2021 (Restated)
(in thousands)

	Year Ended December 31,	
Supplemental Cash Flow Disclosure	**2022**	**2021**
Cash paid during the period for:		
Interest	6,265	11,147
Taxes	817	—
Non-cash investing and financing transaction		
Conversion of debt to equity	—	1,133

The accompanying notes are an integral part of these consolidated financial statements

1. Organization and Formation

Alternus Energy Group Plc ("We", "ALTN" or the "Company" and together with its consolidated subsidiaries, the "Group") was incorporated in Dublin, Ireland on January 31, 2019 under the name Alternus Energy International Limited. On October 20, 2020 the Company re-registered as a Plc and changed its name to Alternus Energy Group Public Limited Company.

The Company is a former subsidiary of the previous parent company of the Group, Alternus Energy Inc. On December 2, 2020, the Group completed the last step of a reorganization, which resulted in the Company becoming the parent company of the Group (the "Reorganization"). The Reorganization included the following main steps:

- Alternus Energy International Ltd registered as an Irish Plc and changed its name to Alternus Energy Group Plc (previously defined as the "Company");
- The Company incorporated Solis Bond Company, a Designated Activity Company ("Solis Bond Company DAC");
- Alternus Energy Inc. (US) merged with and became a subsidiary of Altam Inc., a U.S.-based entity;
- Alternus Energy Inc. spun out Alternus Energy Plc to the existing shareholders of Altam Inc. in a 1:1.5 share dividend transaction; and
- In a 1:4.5 share exchange transaction, Altam Inc. shareholders exchanged their shares for a pro-rata number of shares of Alternus Energy Group Plc, thus becoming a subsidiary of the Alternus Energy Group Plc as it became the surviving parent company.

The impact of the Reorganization has been retroactively reflected in the Company's financial statements as of the earliest period presented and is utilized for calculating earnings per share in all periods presented.

Consolidated subsidiaries as of December 31, 2022 are as follows:

Solis Bond Company Designated Activity Company (DAC)

In October 2020, a new wholly owned subsidiary, Solis Bond Company DAC, was incorporated in Ireland to issue a series of bonds and hold the Group's European operating companies that are financed through those bonds. The SPV was incorporated with the purpose of facilities management and bond issuance for the Group. During the quarter ended March 31, 2021, Solis refinanced its Italian, Netherlands, and Romanian operating companies: PC-Italia-02 SpA, CTS Power 2 S.R.L., CIC Rooftop 2 S.R.L., SPV White One S.R.L., CIC RT Treviso S.R.L., Zonnepark Rilland B.V., FRAN Energy Investments S.R.L., and Power Clouds S.R.L. Also, during the quarter ended March 31, 2021, Solis acquired 100% of the share capital of the following Romanian companies: Ecosfer Energy S.R.L., Lucas EST S.R.L. During the quarter ended March 31, 2021, Solis acquired 100% of the share capital of another Italian company, Solarpark Serre 1 S.R.L. Subsequently, in April 2021, Solis acquired 100% of the share capital of another Romanian company, LJG Green Source Energy Beta S.R.L. In May 2021, Solis refinanced another Italian subsidiary, Sant"Angelo Energia S.R.L. and in June of 2021, Solis acquired 100% of the share capital of the following Italian companies: KKSOL S.R.L., Petriolo Fotovoltaica S.R.L., MABI S.R.L. and BIMA S.R.L. In August of 2021, Solis acquired 100% of the share capital of a Polish company, Solarpark Samas Sp. Z.O.O. In March of 2022, Solis acquired 3 additional Polish companies: RAO1 Sp. Z.o.o., Gardno Sp. Z.O.O. and Gardno 2 Sp. Z.O.O. In December 2021, Solis acquired 100% of the share capital of two additional Polish companies Elektrownia PV Komorowo Sp. Z.O.O and PV Zachod Sp. Z.O.O.

PC-Italia-03 S.R.L.

In July 2020, a new wholly owned subsidiary in Italy, PC-Italia-03 S.R.L., was incorporated. This company was incorporated to acquire Italian special purpose vehicles, power plants and/or other assets located in Italy. During the quarter ended March 31, 2021, this company completed the acquisition of 100% of the share capital of two Italian SPVs, KKSOL S.r.l. and Petriolo Fotovoltaica S.R.L. During the quarter ended June 30, 2021, this company completed the acquisition of 100% of the share capital of two Italian SPVs, MABI S.r.l. and BIMA S.r.l. During the six months ended June 30, 2021 the 4 SPVs owned by PC-Italia-03 were transferred to Solis Bond Company DAC as part of Solis's bond financing. In July and August 2021, PC-03 acquired 100% of the shares of 2 Italian entities Risore Solari 1 S.R.L and Risore Solari III S.R.L respectively, with the purpose of developing solar parks. As of December 2022, PC-Italia-03 S.R.L. is held directly by AEG MH 02 Limited, which owns all of our entities used for the development of solar parks (more details of AEG MH 02 are described below).

AEG MH 02 Limited

In March 2022, AEG MH 02 Limited was incorporated. This company was incorporated to own, finance and support our development assets and entities, as follows: .AED Italia-01 S.R.L., AED Italia-02 S.R.L.; AED Italia-03 S.R.L.; AED Italia-04 S.R.L.; AED Italia-05 S.R.L.; AED Italia-06 S.R.L.; AED Italia-07 S.R.L.; AED Italia-08 S.R.L.; PC-Italia-01 S.R.L., PC-Italia-03 S.R.L., PC-Italia-04 S.R.L., Risorse Solari I S.R.L., Risorse Solaris III, S.R.L., Altnua Limited, Alt Spain Holdco S.L.U., Alternus Iberia S.L. and indirectly owns Alt Spain 02 S.L.U, Alt Spain 03 S.L.U. and Alt Spain 04 S.L.U.

Unisun Energy Holding B.V

In April 2021, Alternus Energy Group acquired 60% of the share capital in Unisun Energy Holding B.V. (Unisun), a Netherlands based developer, engineering, procurement and construction (EPC) and operations and maintenance (O&M) service provider of renewable energy solutions across Europe. Unisun owns 100% of the following special purpose vehicles and other holding and operating companies in the Netherlands: Unisun Energy B.V., UPER Energy Europe B.V., Unisun Energy Poland Investment B.V. and Blue Sky Energy I B.V.

Alternus Energy Americas Inc.

In May 2021, a new wholly owned subsidiary in the U.S. was incorporated, named Alternus Energy Americas Inc. (AEA). This company was incorporated to support the finance and legal functions for the group. AEA also owns 100% of the following special purpose vehicles and other holding and operating companies in the United States: ALT US 01 LLC, ALT US 02 LLC, ALT US 03 LLC and ALT US 04 LLC and indirectly owns Lightwave Renewables, LLC and Walking Horse Solar, LLC.

Altnor AS

In August 2021, a new wholly owned holding company in Norway was incorporated. Altnor was dissolved in November 2022.

AEG MH 01 Limited

In March 2022, a new wholly owned subsidiary in Ireland was incorporated to support EPC for the group. AEG MH 01 Limited owns the following other holding companies which were incorporated to facilitate the use of the Deutsche Bank Facility: AEG MH 03 Limited, AEG JD 01 Limited and ALT POL HC 01 Sp. Z.o.o.

GHFG Limited

In September 2021, a new subsidiary in Ireland was incorporated, and is 55% owned by AEG.

Alternus Fundco Limited

In December 2022, a new wholly owned subsidiary in Ireland was incorporated to support the Group's finance and legal functions.

ALTERNUS LUX 01 S.A.R.L.

In October 2022, a new wholly owned holding company in Luxembourg was incorporated to support the finance and legal functions of the group. ALTERNUS LUX 01 S.A.R.L. also owns AEG JD 03 Limited, ALT GR 01, AEG MH 01 Limited and AEG MH 02 Limited, and all of those entities' subsidiaries as well, as described above

In summary, Alternus Energy Group Plc is a holding company that operates through the following eighty operating subsidiaries as of December 31, 2022:

Subsidiary	**Principal Activity**	**Date Acquired / Established**	**ALTN Ownership**	**Country of Operation**
PCG_HoldCo GmbH	Holding Company	July 2018	100% (via Altam)	Germany
PCG_GP UG	General Partner (Management Company)	August 2018	100% (via PCG_HoldCo)	Germany
PSM 20 GmbH & Co KG	SPV	November 2018	100% (via PCG_HoldCo)	Germany
PSM 40 GmbH & Co KG	SPV	December 2018	100% (via PCG_HoldCo)	Germany
GRT 1.1 GmbH & Co KG	SPV	December 2018	100% (via PCG_HoldCo)	Germany
GRK 17.2 GmbH & Co KG	SPV	November 2018(Dissolved)	100% (via PCG_HoldCo)	Germany
ALTN HoldCo UG	SPV	December 2018	100% (via PCG HoldCo)	Germany
Solis Bond Company DAC	Holding Company	October, 2020	100% (via AEG)	Ireland
Altnua Limited (f/k/a/ Alternus Energy Development Holding Limited)	Services Company	August 2021	100% (via AEG MH 02 Limited as of 15 June 2022)	Ireland
GHFG Limited	Holding Company	September 2021	55% (via AEG)	Ireland
AEG JD 01 Limited	Junior Debt Holding Company	March 2022	100% (via AEG MH 03 Limited)	Ireland
AEG JD 03 Limited	Junior Debt Holding Company	March 2022	100% (via Alternus LUX 01 S.a.r.l. as of 8 December 2022)	Ireland
AEG MH 01 Limited	Holding Company	March 2022	100% (via Alternus LUX 01 S.a.r.l)	Ireland
AEG MH 02 Limited	Holding Company	March 2022	100% (via Alternus LUX 01 S.a.r.l)	Ireland
AEG MH 03 Limited	Holding Company	June 2022	100% (via AEG MH 01 Limited)	Ireland
AEG JD 02 Limited (f/k/a/ Alternus Energy	Holding Company	September 2021	100% (via AEG)	Ireland

Construction Holding Limited AECHL)				
Alternus Fundco Limited	Funding Company	December 2022	100% (via AEG)	Ireland
PC-Italia-01 S.R.L.	Sub-Holding	May 2015	100% (via AE Europe)	Italy
PC-Italia-02 S.p.A.	SPV	September 2016	100% (via Solis)	Italy
Sant'Angelo Energia S.r.l.	SPV	May 2021	100% (via Solis)	Italy
CIC Rooftop 2 S.r.l.	SPV	April 24, 2019	100% (via Solis)	Italy
CIC RT Treviso S.r.l.	SPV	April 24, 2019	100% (via Solis)	Italy
SPV White One S.r.l.	SPV	April 24, 2019	100% (via Solis)	Italy
CTS Power 2 S.r.l.	SPV	April 30, 2019	100% (via Solis)	Italy
PC-Italia-03 S.R.L.	SPV	July 2020	100% (via AEG)	Italy
PC-Italia-04 S.R.L.	SPV	July 2020	100% (via AEG)	Italy
KKSOL S.R.L.	SPV	February 2021	100% (via Solis)	Italy
Petriolo Fotovoltaica S.r.l.	SPV	March 2021	100% (via Solis)	Italy
Solarpark Serre 1 S.R.L.	SPV	March 2021	100% (via Solis)	Italy
BIMA S.R.L.	SPV	March 2021	100% (via Solis)	Italy
MABI S.R.L.	SPV	June 2021	100% (via Solis)	Italy
Risore Solari I S.R.L	SPV	September 2019	100% (via PC03)	Italy
Risore Solari III S.R.L	SPV	August 2021	100% (via PC03)	Italy
AED Italia – 01 S.r. l	SPV	October 2021	100% (via AECHL)	Italy
AED Italia – 02 S.r. l	SPV	October 2021	100% (via AECHL)	Italy
AED Italia – 03 S.r. l	SPV	October 2021	100% (via AECHL)	Italy
AED Italia – 04 S.r. l	SPV	October 2021	100% (via AECHL)	Italy
AED Italia – 05 S.r. l	SPV	October 2021	100% (via AECHL)	Italy
AED Italia – 06 S.r. l	SPV	August 2022	100% (via AECHL)	Italy
AED Italia – 07 S.r. l	SPV	August 2022	100% (via AECHL)	Italy
AED Italia – 08 S.r. l	SPV	August 2022	100% (via AECHL)	Italy
Uper Energy Italia S.R.L	SPV	June 2022	100% (via Uper Energy Europe B.V.)	Italy
AE Europe B.V.	Holding Company	August 2016	100% (via Altam)	Netherlands
AEN 01 B.V.	SPV	June 13, 2019 (Dissolved in 2022)	100% (via Altam)	Netherlands
Zonnepark Rilland B.V.	SPV	December 20, 2019	100% (via Solis)	Netherlands
AEN 02 B.V.	SPV	July 2020 (Dissolved in 2021)	100% (via Altam)	Netherlands
Unisun Energy Holding B.V.	Holding Company	April 2021	60%* (via AEG)	Netherlands
Unisun Energy B.V.	SPV	April 2021	60%* (via AEG)	Netherlands
UPER Energy Europe B.V.	Services Company	April 2021	100% (via Unisun Energy Holding B.V.)	Netherlands

Unisun Energy Poland Investment B.V.	SPV	April 2021	100% (via Unisun Energy Holding B.V.)	Netherlands
Blue Sky Energy I B.V.	SPV	April 2021	100% (via AEG JD 02 Limited)	Netherlands
Altnor AS	Holding Company	August 2021 (Dissolved in November 2022)	100% (via AEG)	Norway
Solarpark Samas Sp. Z.O.O	SPV	May 2021	100% (via Solis)	Poland
Elektrownia PV Komorowo Sp. Z.O.O	SPV	December 2021	100% (via Solis)	Poland
PV Zachod Sp. Z.O.O	SPV	December 2021	100% (via Solis)	Poland
Alt POL HC 01 Sp. z.o.o	SPV	March 2022	100% (via AEG JD 01 Limited)	Poland
Uper Energy Poland SP.z.o.o	SPV	August 2022	100% (via Uper Energy Europe B.V.)	Poland
RA01 Sp. z o.o.	SPV	March 2022	100% (via Solis)	Poland
Gardno PV Sp. z o.o.	SPV	March 2022	100% (via Solis)	Poland
Gardno2 PV Sp. z o.o.	SPV	March 2022	100% (via Solis)	Poland
Power Clouds S.R.L.	SPV	March 31, 2015	100% (via Solis)	Romania
F.R.A.N. Energy Investment S.R.L.	SPV	March 31, 2015	100% (via Solis)	Romania
Lucas EST S.R.L.	SPV	March 2021	100% (via Solis)	Romania
Ecosfer Energy S.R.L..	SPV	March 2021	100% (via Solis)	Romania
LJG Green Source Energy Beta S.R.L.	SPV	May 2021	100% (via Solis)	Romania
Uper Energy Romania S.R.L.	SPV	February 2022	100% (via Uper Energy Europe B.V.)	Romania
Alternus Iberia S.L.,(f/k/a Alt Spain 01, S.L.U.)	SPV	August 2021	100% (via PC03)	Spain
Alt Spain Holdco, S.L.U.	Holding Company	July 2022	100% (via Altnua Limited)	Spain
Alt Spain 02, S.L.U	SPV	July 2022	100% (via Alt Spain HoldCo, S.L.U.	Spain
Alt Spain 03, S.L.U.	SPV	May 2022	100% (via Alt Spain HoldCo, S.L.U.)	Spain
Alt Spain 04, S.L.U.	SPV	May 2022	100% (via Alt Spain HoldCo, S.L.U.)	Spain
Altam Inc	Holding Company	October 2020	100% (via AEG)	USA
Alternus Energy Americas Inc.	Holding Company	May 2021	100% (via AEG)	USA
Alt US 01 LLC	SPV	December 2021	100% (via Alternus Energy Americas Inc)	USA
Alt US 02 LLC	Holding Company	March 2022	100% (via AEA)	USA
Alt US 03 LLC	SPV	May 2022	100% (via AEA)	USA
Alt US 04 LLC	Holding Company	September 2022	100% (via AEA)	USA
LightWave Renewables, LLC	SPV	June 2022	100% (via ALT US 02 LLC)	USA

ALT GR 01	Holding Company	October 2022	100% (via Alternus LUX 01 S.a.r.l.)	Greece
Alternus LUX 01 S.a.r.l.	Holding Company	October 2022	100% (via AEG)	Luxembourg

*Non-controlling interest is not material

2. Going Concern and management's plans

Our consolidated financial statements for the year ended December 31,2022 identifies the existence of certain conditions that raise substantial doubt about our ability to continue as a going concern for twelve months from the issuance of this report:

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. As shown in the accompanying consolidated financial statements during the year ended December 31, 2022, the Company had net loss of $(36.2) million and a net loss of $(18.9) million for the year ended December 31, 2022 and 2021, respectively. The Company was in breach of three financial covenants under Solis' Bond terms as of December 31, 2022, refer to Footnote 13 for more detail. The Company had accumulated shareholders' equity/(deficit) of $(20.8) million and $16.6 million as of December 31, 2022 and December 31, 2021, respectively, and a working capital (deficit) of $(28.1) million as of December 31, 2022 compared to working capital of $9.1 million as of December 31, 2021 At December 31, 2022, the Company had $3 million of unrestricted cash on hand.

Our operating revenues are insufficient to fund our operations and our assets already are pledged to secure our indebtedness to various third party secured creditors, respectively. The unavailability of additional financing could require us to delay, scale back or terminate our acquisition efforts as well as our own business activities, which would have a material adverse effect on the Company and its viability and prospects.

The terms of our indebtedness, including the covenants and the dates on which principal and interest payments on our indebtedness are due, increases the risk that we will be unable to continue as a going concern. To continue as a going concern over the next twelve months, we must make payments on our debt as they come due and comply with the covenants in the agreements governing our indebtedness or, if we fail to do so, to (i) negotiate and obtain waivers of or forbearances with respect to any defaults that occur with respect to our indebtedness, (ii) amend, replace, refinance or restructure any or all of the agreements governing our indebtedness, and/or (iii) otherwise secure additional capital. However, we cannot provide any assurances that we will be successful in accomplishing any of these plans

On March 1, 2023, the Company announced that its wholly owned subsidiary, Solis Bond Company DAC, is in breach of the three financial covenants under Solis' Bond terms. As of the date of this filing, Solis and a large portion (49%) of the bond holders have agreed in principle to terms of the temporary waivers. In return for the waivers until 30 June 2023 and an amendment to the bond terms to allow for a change of control in Solis (which allows for the transfer of Solis and its subsidiaries underneath Clean Earth Acquisitions Corp. on Closing), Alternus is to raise additional equity and/or issue a subordinated loan of €14 million by May 15, 2023. If no firm term sheet for the equity or subordinated loan is in place by April 21, 2023, the Company has agreed to commence a Norwegian equity offering. Alternatively, Solis also has the option to divest a minimum of €50 million of assets by April 21, 2023, with sales proceeds to be used for a partial redemption of the bonds (at a redemption/call price of 105% until June 30, 2023 and 107.5% thereafter). In addition to the equity/sales cures, bondholders will also, no later than April 30, 2023, receive a preference share in an Alternus Midco, which will hold certain development projects in Spain and Italy. The shares will have preference on any distribution from Midco to Alternus up to €10 million, and Midco will divest assets to ensure repayment of the €10 million should the bonds not have been fully repaid at maturity (January 6, 2024). Finally, bondholders will receive a 1% amendment fee, which equates to €1.4 million.

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3. Summary of Significant Accounting Policies

Basis of Presentation

The Consolidated Financial Statements include the Consolidated Balance Sheet, Consolidated Statements of Operations and Comprehensive Income (Loss), Consolidated Statements of Changes in Shareholders' Equity/ (Deficit) and Consolidated Statements of Cash Flows of the Company and have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") from records maintained by the Company.

Certain monetary amounts, percentages, and other figures included elsewhere in these financial statements have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be the arithmetic aggregation of the figures that precede them, and figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

Basis of Consolidation

The consolidated financial statements as of December 31, 2022 and 2021 and for the years then ended include the financial statements of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The results of subsidiaries acquired or disposed of during the respective periods are included in the consolidated financial statements from the effective date of acquisition or up to the effective date of disposal, as appropriate. Ownership interests in subsidiaries represented by other parties are presented in the consolidated financial statements as activities and balances attributable to non-controlling interest.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses for the periods presented. Significant items subject to such estimates include, but are not limited to, the assumptions utilized in the valuation of the assets acquired and liabilities assumed, determine a business combination or asset acquisition , useful life of property and equipment, impairment of long-lived assets and recovery of capitalized cost. Management evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors, including the current economic environment, and makes adjustment when facts and circumstance dictate. These estimates are based on information available as of the date of financial statements; therefore, actual results could differ from these estimates.

Segments

The Company has one operating segment, and the decision-making group is the senior executive management team. The Company manages the segment by focusing on revenue and cost of revenue by country.

Cash and Cash Equivalents

The Company considers cash and highly liquid investments with original maturities of three months or less to be cash and cash equivalents. The Company maintains cash and cash equivalents with major financial institutions, the largest concentration in JP Morgan in the U.S, Ireland and Italy and with ING in Poland and the Netherlands. The Company may at times exceed federally insured limits or statutorily insured limits in a foreign jurisdiction. The Company periodically assesses the financial condition and due to the size and stability of the institutions believes the risk of loss to be remote.

Restricted Cash

Restricted cash relates to balances that are in the bank accounts for specific defined purposes and cannot be used for any other undefined purposes. Restricted cash is primarily restricted stemming from requirements under the Green Bond terms. The balance has a debt service reserve account, per the requirements from the Bond Trustee, that issues quarterly coupons to the Bond holders. There is an account that has the residual balance of bond tap that must be used for permitted acquisitions as per Green Bond terms. The balance also has an account for a bank guarantee in place for Poland and one acquisition related accounts in Italy and Romania that hold escrow balances.

Accounts Receivable

Accounts receivable are uncollateralized customer obligations due under normal trade terms requiring payment within that period. Accounts receivables are presented net of allowance for doubtful accounts. The Company establishes an allowance for doubtful customer accounts, if required, through a review of historical losses, specific customer balances, and industry economic conditions. Customer accounts are charged off against the allowance for doubtful accounts when management determines that the likelihood of eventual collection is remote. The Company extends credit based on an evaluation of customers' financial condition and determines any additional collateral requirements. Exposure to losses on receivables is principally dependent on each customer's financial condition. The Company considers invoices past due when they are outstanding longer than the stated term. Additionally, the Company monitors its exposure to credit losses and maintains allowances for anticipated losses. Management considers the carrying value of accounts receivable to be fully collectible. If amounts become uncollectible, they are charged to operations in the period in which that determination is made. At December 31, 2022 and 2021, there was no allowance for doubtful accounts recorded.

Concentration of Credit Risk

At times, the Company maintains cash balances in financial institutions which may exceed federally insured limits. The Company has not experienced any losses relating to such accounts and believes it is not exposed to significant credit risk on its cash and cash equivalents or restricted cash.

Economic Concentrations

The Company and its subsidiaries own and operate solar generating facilities installed on buildings and land located across Europe. Future operations could be affected by changes in the economy, other conditions in those geographic areas or by changes in the demand for renewable energy.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation, amortization and impairment. The cost of an asset comprises its purchase price and any directly attributable costs of bringing the asset to its present working condition and location for its intended use. Depreciation is computed on a straight-line basis over the estimated useful lives. The useful lives per asset class are as follows:

- Solar Energy Facilities carry a useful life of the lesser of 35 years from the original placed in service date or the lease term of the land on which they are built.
- Leasehold improvements are amortized over the shorter of the lease term or their estimated useful file.
- Furniture and fixtures carry a useful life of 7 years.
- Software and computer equipment carry a useful life of 7 years.

Expenditures for major renewals and betterments which substantially extend the useful life of assets are capitalized. Expenditures for maintenance and repairs, which do not materially extend the useful lives of assets, are charged to expense as incurred. Upon retirement, sale or other disposition of equipment, the cost and accumulated depreciation are removed from the respective accounts and a gain or loss, if any, is recognized in income/(loss) from operations in the Consolidated Statements of Operations and Comprehensive Income/(Loss) during the year of disposal. When the Company abandons the anticipated construction of a new solar energy facility during the development phase, costs previously capitalized to development in progress are written off at the parent company.

Goodwill

The Company reports goodwill that has been recorded in connection with the acquisition of businesses. Goodwill is not amortized, but instead is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Goodwill is tested annually for impairment at the individual reporting unit level on October 1, or earlier upon the occurrence of certain events or substantive changes in circumstances. In assessing goodwill for impairment, the Company may elect to use a qualitative assessment to determine whether the existence of events or circumstances leads to a determination that it is more-likely-than-not that the fair value of the Company's reporting units are less than their carrying amounts. If the Company determines that it is more likely than not that the fair value of its reporting units is less than their carrying amounts, no additional assessment is required, and no impairment is recognized. If the Company concludes an impairment is probable or elect not to perform the qualitative assessment, a quantitative impairment test is performed. If it is determined that an impairment has occurred, the Company adjusts the carrying value of goodwill and charges the impairment as an operating expense in the period the determination is made. The Company did not recognize any impairment of goodwill for the periods presented. Although the Company believes that goodwill is appropriately stated in the consolidated financial statements, changes in strategy or market conditions could significantly impact these judgments and require an adjustment to the recorded balance.

Impairment of Solar Energy Facilities

The Company reviews its investments in property and equipment for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. Impairment is evaluated at the asset group level, which is determined based upon the lowest level of separately identifiable cash flows. When evaluating for impairment, if the estimated undiscounted cash flows from the use of the asset group are less than the asset group's carrying amount, then the asset group is deemed to be impaired and is written down to its fair value. Fair value is determined by net realizable value of the assets using ASC 820. The amount of the impairment loss is equal to the excess of the asset group's carrying value over its estimated fair value. During the year ended December 31, 2022 the Company recorded an impairment loss of $79 thousand in the Consolidated Statement of Operations and Comprehensive Income/(Loss) related to the 2021 write down for $4.2 million of certain assets that were held in construction in progress for which the Company no longer intended to complete and certain solar park assets for which there was a change in the Company future intended use. This impairment loss is included in Other Expense on the Consolidated Statement of Operations and Comprehensive Income/(Loss)

Deferred Financing Costs and Debt Discount Amortization

The Company incurs expenses related to debt arrangements. These deferred financing costs and debt discount costs are capitalized and amortized over the term of the related debt or revolving credit facilities and netted against the related debt.

Asset Retirement Obligations

In connection with the acquisition or development of solar energy facilities, the Company may have the legal requirement to remove long-lived assets constructed on leased property and to restore the leased property to its condition prior to the construction of the long-lived assets. This legal requirement is referred to as an asset retirement obligation (ARO). If the Company determines that an ARO is required for a specific solar energy facility, the Company records the present

value of the estimated future liability when the solar energy facility is placed in service as an ARO liability. The discount rate used to estimate the present value of the expected future cash flows for the year ended December 31, 2022 and 2021 was 7.1 % and 6% respectively. The Company accretes the ARO liability to its future value over the solar energy facility's useful life and records the related interest expense to amortization expense on the consolidated statement of operations. Solar facilities that require AROs are recorded as part of the carrying value of property and depreciated over the solar energy facility's useful life.

Leases

In February 2016, the FASB established Topic 842, Leases, by issuing Accounting Standards Update (ASU) No. 2016-02, which requires lessees to recognize leases on-balance sheet and disclose key information about leasing arrangements. Topic 842 was subsequently amended by ASU No. 2018-01, Land Easement Practical Expedient for Transition to Topic 842; ASU No. 2018-10, Codification Improvements to Topic 842, Leases; and ASU No. 2018-11, Targeted Improvements. The new standard establishes a right-of-use model (ROU) that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement. A modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application. The Company adopted the new standard on January 1, 2022 and used the effective date as our date of initial application. Consequently, financial information will not be updated and the disclosures required under the new standard will not be provided for dates and periods before January 1, 2022. The new standard provides a number of optional practical expedients in transition. We elected the 'package of practical expedients', which permits us not to reassess under the new standard our prior conclusions about lease identification, lease classification and initial direct costs.

The Company adopted ASC 842 as of January 1, 2022. Lease assets and liabilities are recognized based on the present value of the future lease payments over the lease term at the lease commencement date and are presented, on the consolidated statements of financial condition. The Company estimates its incremental borrowing rate based on information available at the commencement date in determining the present value of future payments. For additional information, see Note 14 - Leases.

Operating lease expense attributable to site leases is reported within cost of revenues in the Company's Statement of Operations and Comprehensive Income/ (Loss); whereas lease expense attributable to all other operating leases is reported within selling, general, and administrative expense in the Company's Statement of Operations and Comprehensive Income/ (Loss).

Revenue Recognition

The Company follows the guidance of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC 606"). The core principle underlying revenue recognition under ASC 606 is that revenue should be recognized as goods or services are transferred to customers in an amount that reflects the consideration to which the Company expects to be entitled. ASC 606 defines a five-step process to achieve this core principle. ASC 606 also mandates additional disclosure about the nature, amount, timing and uncertainty of revenues and cash flows arising from customer contracts, including significant judgments, and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract.

The Company derives revenues through its subsidiaries from the sale of electricity and the sale of solar renewable energy credits (RECs) in Romania and guarantees of origin certificates (GoOs) in Poland. The Company receives Green Certificates based on the amount of energy produced in Romania. Energy generation revenue and solar renewable energy credits revenue are recognized as electricity generated by the Company's solar energy facilities is delivered to the grid, at which time all performance obligations have been delivered. Revenues are based on actual output and contractual sale prices set forth its customer contracts.

The Company's current portfolio of renewable energy facilities is generally contracted under long-term Country Renewable Programs (FIT programs) or Energy Offtake Agreements (PPAs/VPPAs) with creditworthy counterparties. Pricing of the electricity sold under these FITs and PPAs is generally fixed for the duration of the contract, although some of its PPAs have price escalators based on an index (such as the consumer price index) or other rates specified in the applicable PPA.

Disaggregated Revenues

The following table shows the Company's revenues disaggregated by country and contract type:

Revenue, by Country (in thousands)	Year Ended December 31, 2022	2021
	(in thousands)	
Italy	$ 3,354	$ 3,665
Romania	13,710	13,964
Germany	201	187
Netherlands	4,528	1,340
Poland	10,709	2,237
United States	24	—
Total	**$ 32,526**	**$ 21,393**

Revenue, by Offtake Type (in thousands)	Year Ended December 31, 2022	2021
	(in thousands)	
Country Renewable Programs	$ 5,016	$ 4,133
Green Certificates	9,452	8,427
Energy Offtake Agreements	17,888	8,833
Other Revenue	170	—
Total	**$ 32,526**	**$ 21,393**

One customer represented 30% of revenues during the years ended December 31, 2022 and 2021. The revenues from this customer were $9.6 million and $6.4 million during the years ended December 31, 2022 and 2021 respectively. The company did not have any customers who represented more than 10% of accounts receivable as of December 31, 2022 and 2021.

Unbilled Energy Incentives Earned

The Company derives revenues from the sale of green certificates for the Romania projects. The green certificates revenues are recognized in the month they are generated by the solar project and registered with the local authority. The Company considers them unbilled at the end of the period if they have not been invoiced to a third party customer.

Cost of Revenue

Cost of revenue primarily consists of operations and maintenance expense, insurance premiums, property taxes and other miscellaneous costs associated with the operations of solar energy facilities. Costs are charged to expense as incurred.

Taxes Recoverable and Payable

The Company records taxes recoverable, when there has been an overpayment of taxes due to timing of the Value Added Tax (VAT) between vendors and customers. The VAT tax can also be offset against a Country's income taxes where the VAT was registered.

Development Cost

Development cost are incurred when the Company abandons the development of renewable energy projects. The Company depends heavily on government policies that support our business and enhance the economic feasibility of developing and operating solar energy projects in regions in which we operate or plan to develop and operate renewable energy facilities. The Company can decide to abandon a project if there is material change in budgetary constraints, political factors or otherwise, governments from time to time may review their laws and policies that support renewable energy and consider actions that would make the laws and policies less conducive to the development and operation of renewable energy facilities. Any reductions or modifications to, or the elimination of, governmental incentives or policies that support renewable energy or the imposition of additional taxes or other assessments on renewable energy, could result in, among other items, the lack of a satisfactory market for the development and/or financing of new renewable energy projects, our abandoning the development of renewable energy projects, a loss of our investments in the projects and reduced project returns, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks and Uncertainties

The Company's operations are subject to significant risks and uncertainties including financial, operational, technological, and regulatory risks and the potential risk of business failure. See Note 2 regarding going concern matters.

The geopolitical situation in Eastern Europe intensified on February 24, 2022, with Russia's invasion of Ukraine. The war between the two countries continues to evolve as military activity proceeds and additional sanctions are imposed. In addition to the human toll and impact of the events on entities that have operations in Russia, Ukraine, or neighboring countries (e.g., Belarus, Poland, Romania) or that conduct business with their counterparties, the war is increasingly affecting economic and global financial markets and exacerbating ongoing economic challenges, including issues such as rising inflation and global supply-chain disruption. These events are highly uncertain and as such, the Company cannot determine their financial impact at this time.

On March 10, 2023 Silicon Valley Bank became the second largest bank failure to date. This was followed on March 12, 2023 by the failure of Signature Bank, the third largest bank failure in U.S history. These bank failures were the first two in a banking crises that included Credit Suisse and Deutsche, a bank that has extended a warehouse loan to the Company. The Company maintains cash balances in financial institutions which may exceed federally insured limits and is monitoring these events for both current and future liquidity.

Fair Value of Financial Instruments

The Company measures its financial instruments at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

U.S. GAAP establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three (3) broad levels. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The three (3) levels of fair value hierarchy are described below:

Level 1 – Quoted market prices available in active markets for identical assets or liabilities as of the reporting date.

Level 2 – Pricing inputs other than quoted prices in active markets included in Level 1 that are either directly or indirectly observable as of the reporting date. Inputs are observable, unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities.

Level 3 – Pricing inputs that are unobservable. Financial assets are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies or similar techniques, and at least one significant model assumption or input is unobservable.

The Company holds various financial instruments that are not required to be measured at fair value. For cash and cash equivalents, restricted cash, accounts receivable, various debt instruments, prepayments and other current assets, accounts payable, accrued liabilities and other current liabilities, the carrying value approximated their fair values due to the short-term maturity of these instruments.

Business Combinations and Acquisition of Assets

The Company applies the definition of a business in ASC 805, *Business Combinations,* to determine whether it is acquiring a business or a group of assets. When the Company acquires a business, the purchase price is allocated to; (i) the acquired tangible assets and liabilities assumed, primarily consisting of solar energy facilities and land, (ii) the identified intangible assets and liabilities, primarily consisting of favorable and unfavorable rate Power Purchase Agreements (PPAs) and Renewable Energy Credit (REC) agreements, (iii) asset retirement obligations, (iv) non-controlling interest, and (v) other working capital items based in each case on their estimated fair values. The excess of the purchase price, if any, over the estimated fair value of net assets acquired is recorded as goodwill. The fair value measurements of the assets acquired, and liabilities assumed were derived utilizing an income approach and based, in part, on significant inputs not observable in the market. These inputs including, but are not limited to, estimates of future power generation, commodity prices, operating costs, and appropriate discount rates. These inputs required significant judgments and estimates at the time of the valuation. In addition, acquisition costs related to business combinations are expensed as incurred.

When an acquired group of assets does not constitute as a business, the transaction is accounted for as an asset acquisition. The cost of assets acquired, and liabilities assumed in asset acquisitions is allocated based upon relative fair value. The fair value measurements of the solar facilities acquired, and asset retirement obligations assumed were derived utilizing an income approach and based, in part, on significant inputs not observable in the market. These inputs include, but are not limited to, estimates of future power generation, commodity prices, operating costs, and appropriate discount rates. These inputs require significant judgments and estimates at the time of the valuation. Transaction costs incurred on an asset acquisition are capitalized as a component of the assets acquired.

The allocation of the purchase price directly affects the following items in the Company's consolidated financial statements:

- The amount of purchase price allocated to the various tangible and intangible assets, liabilities and non-controlling interests on the Company Balance Sheet,
- The amounts allocated to all other tangible assets and intangibles are amortized to depreciation or amortization expense, with the exception of favorable and unfavorable rate land leases and unfavorable rate Operation and Maintenance (O&M) contracts which are amortized to cost of revenue; and

The period of time over which tangible and intangible assets and liabilities are depreciated or amortized varies, and thus, changes in the amounts allocated to these assets and liabilities will have a direct impact on the Company's results of operations.

Income Taxes

Deferred taxes are determined using the asset and liability method; whereby, deferred tax assets are recognized for deductible temporary differences, operating loss and tax credit carry forwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax basis. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

The Company evaluated the provisions of ASC 740 related to the accounting for uncertainty in income taxes recognized in the financial statements. ASC 740 prescribes a comprehensive model for how a company should recognize, present, and disclose uncertain positions that the company has taken or expects to take in its return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. Differences between the positions taken or expected to be taken in a tax return and the benefit recognized and measured pursuant to the interpretation are referred to as "unrecognized benefits". A liability is recognized for an unrecognized tax benefit because it represents an enterprise's potential future obligation to the taxing-authority for a tax position that was not recognized as a result of applying the provisions of ASC 740.

As a result of the Tax Cuts and Jobs Act (TCJA) of 2017, the Company analyzed if a liability needed to be recorded for the deemed repatriation of undistributed earnings. It was determined that there is no outstanding liability associated with this based on overall negative undistributed earnings (accumulated deficit) in the consolidated foreign group. An additional provision of the TCJA is the implementation of the Global Intangible-Low Taxed Income Tax, or "GILTI." The Company has elected to account for the impact of GILTI in the period in which the tax actually applies to the Company. During fiscal years 2022 and 2021, the Company had overall net foreign losses and thus, there was no impact on the US taxable income calculations.

The Company is an inverted Company and treated as a US entity for all US income tax purposes. As a result, the Company will be obligated to comply with all U.S. income tax obligations applicable to domestic entities. Accordingly, the income tax provision has been prepared consistent with that of a U.S. entity.

Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with ASC 718. Stock-based compensation expense for equity instruments issued to employees and non-employees is measured based on the grant-date fair value of the awards. The fair value of each stock unit is determined based on the valuation of the Company's stock on the date of grant. The fair value of each stock option is estimated on the date of grant using the Black-Scholes-Merton stock option pricing valuation model. The Company uses the simplified method for calculating the expected term of their options. The Company recognizes compensation costs using the straight-line method for equity compensation awards over the requisite service period of the awards, which is generally the awards' vesting period. The Company accounts for forfeitures of awards in the period they occur.

Use of the Black-Scholes-Merton option-pricing model requires the input of highly subjective assumptions, including (1) the expected terms of the option, (2) the expected volatility of the price of the Company's common stock, and (3) the expected dividend yield of our common stock. The assumptions used in the option-pricing model represents management's best estimates. These estimates involve inherent uncertainties and the application of management's judgments. If factors change and different assumptions are used, the Company's stock-based compensation expense could be materially different in the future. Additional inputs to the Black-Scholes-Merton option-pricing model include the risk-free interest rate and the fair value of the Company's common stock. The Company determines the risk-free interest rate by using the U.S. Treasury Rates of the same period as the expected term of the stock-option.

Net Loss Per Share

Net loss per share is computed pursuant to ASC 260, *Earnings per Share*. Basic net loss per share attributable to common shareholders is computed by dividing net loss attributable to common shareholders by the weighted average number of shares of common stock outstanding for the period. Diluted net loss per share attributable to common shareholders is computed by dividing net loss attributable to common shareholders by the weighted average number of shares of common stock outstanding for the period plus the number of ordinary shares that would have been outstanding if all potentially dilutive ordinary shares had been issued, using the treasury stock method or if-converted method, as applicable. Potentially dilutive shares related to stock options, warrants, and convertible notes were excluded from the calculation of diluted net loss per share due to their anti-dilutive effect due to losses in each period. The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because their inclusion would be anti-dilutive:

	Year Ended December 31,	
	2022	**2021**
Stock options granted and shares outstanding	26,365,738	26,335,738
Warrants	220,182	817,704
Total	**26,585,920**	**27,153,442**

Foreign Currency Transactions and Other Comprehensive Loss

Foreign currency transactions are those transactions whose terms are denominated in a currency other than the currency of the primary economic environment in which the Company operations, which is referred to as the functional currency. The functional currency of the Company's foreign subsidiaries is typically the applicable local currency which is Romanian Lei (RON), Polish Zloty (PLN) or European Union Euros (EUR). Transactions denominated in foreign currencies are remeasured to the functional currency using the exchange rate prevailing at the balance sheet date for balance sheet accounts and using an average exchange rate during the period, which approximates the daily exchange rate, for income statement accounts. Foreign currency gains or losses resulting from such remeasurement are included in the Consolidated Statement of Operations in the period in which they arise.

Transaction gains and losses are recognized in the Company's Results of Operations based on the difference between the foreign exchange rates on the transaction date and on the reporting date. The Company had an immaterial net foreign exchange loss for the years ended December 31, 2022 and 2021.

The translation from functional foreign currency to United States Dollars (U.S. Dollar) is performed for balance sheet accounts using current exchange rates in effect at the balance sheet date and using an average exchange rate during the period, which approximates the daily exchange rate, for income statement accounts. The effects of translating financial statements from functional currency to reporting currency are recorded in other comprehensive income. For the years ended December 31, 2022 and 2021 the increase/(decrease) in comprehensive loss related to foreign currency translation gains was ($145) thousand and $682 thousand, respectively.

Recent Accounting Pronouncements Not Adopted

In June 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-13, Financial Instruments-Credit losses (Topic 326), subsequently amended by ASU 2020-2. This new guidance will change how entities account for credit impairment for trade and other receivables, as well as for certain financial assets and other instruments held at amortized cost. The update will replace the current incurred loss model with an expected loss model. Under the incurred loss model, a loss (or allowance) is recognized only when an event has occurred (such as a payment delinquency) that causes the entity to believe that a loss is probable (that is has been "incurred"). Under the expected loss model, a loss (or allowance) is recognized upon initial recognition of the asset that reflects all future events that may lead to a loss being realized, regardless of whether it is probable that the future event will occur. The incurred loss model considers past events and conditions, while the expected

loss model includes expectations for the future which have yet to occur. ASU 2018-19 was issued in November 2018 and excludes operating leases from the new guidance. The standard will require entities to record a cumulative-effect adjustment to the balance sheet as of the beginning of the first reporting period in which the guidance is effective. For public business entities that meet the definition of a U.S. Securities and Exchange (SEC) filer, the update is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. As an Emerging Growth Company, the standard is effective for the Company's annual reporting period and interim periods beginning first quarter of 2023. The standard is not expected to have a material impact on the Company's financial statements and associated disclosures.

In August 2020, the FASB issued Accounting Standards Update 2020-06, Debt-Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815040). The ASU simplifies the accounting for certain financial instruments with characteristics of liabilities and equity. The FASB reduced the number of accounting models for convertible debt and convertible preferred stock instruments and made certain disclosure amendments to improve the information provided to users. In addition, the FASB amended the derivative guidance for the "own stock" scope exception and certain aspects of EPS guidance. For public business entities that meet the definition of a SEC filer, excluding entities eligible to be a smaller reporting company as defined by the SEC, the guidance is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. For all other entities, the guidance is effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The Company is currently evaluating the effect that the adoption of ASU 2020-06 will have on its consolidated financial statement.

In October 2021, the FASB issued Accounting Standards Update 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. The ASU requires companies to apply ASC 606 to recognize and measure contract assets and contract liabilities from contracts with customers acquired in a business combination. The guidance generally will result in companies recognizing contract assets and contract liabilities at amounts consistent with those recorded by the acquiree immediately before the acquisition date. The guidance also clarifies that companies should apply the definition of a performance obligation in ASC 606 when recognizing contract liabilities assumed in a business combination. For public business entities, the guidance is effective for fiscal years beginning after December 15, 2022, including interim periods withing those fiscal years. For all other entities, the guidance is effective for fiscal years beginning after 15 December 2022 and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the effect the adoption of ASU 2021-08 will have on its consolidated financial statements.

4. Business Combination and Acquisitions of Assets

The Company applies the definition of a business in ASC 805, *Business Combinations*, to determine whether it is acquiring a business or a group of assets. When the Company acquires a business, the purchase price is allocated to (I) the acquired tangible assets and liabilities assumed, primarily consisting of solar energy facilities and land, (ii) the identified intangible assets and liabilities, primarily consisting of favorable and unfavorable rate PPAs and REC agreements, (iii) asset retirement obligations, (iv) non-controlling interests, and (v) other working capital items based in each case on their estimated fair values. The excess of the purchase price, if any, over the estimated fair value of net assets acquired is recorded as goodwill. The fair value measurements of the assets acquired, and liabilities assumed were derived utilizing an income approach and based, in part, on significant inputs not observable in the market. These inputs include, but are not limited to, estimates of future power generation, commodity prices, operating costs, and appropriate discount rates. These inputs required significant judgments and estimates at the time of the valuation. In addition, acquisition costs related to business combinations are expensed as incurred.

There were no business combinations in 2022

Acquisition of RA01 Sp. Z.O.O.

On March 24, 2022, the Company acquired a solar park portfolio located in Poland from a third party for a total purchase price, net of cash received, of $1.1 million. The transaction was accounted for as an acquisition of assets, whereby the Company acquired $1 million of property and equipment and $0.1 million of other assets.

Acquisition of Gardno Sp. Z.O.O.

On March 24, 2022, the Company acquired a solar park portfolio located in Poland from a third party for a total purchase price, net of cash received, of $6.6 million. The transaction was accounted for as an acquisition of assets, whereby the Company acquired $6.4 million of property and equipment, and $0.2 million of other assets.

Acquisition of Gardno 2 Sp. Z.O.O.

On March 24, 2022, the Company acquired a solar park portfolio located in Poland from a third party for a total purchase price, net of cash received, of $4.4 million. The transaction was accounted for as an acquisition of assets, whereby the Company acquired $4.3 million of property and equipment, and $0.1 million of other assets.

5. Accounts Receivables,

Accounts receivables relate to amounts due from customers for services that have been performed and invoices that have been sent. Unbilled energy incentives relate to services that have been performed for the customer but have yet to be invoiced. Accounts receivables, and unbilled energy incentives consist of the following at December 31:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Accounts receivable	$ 5,916	$ 4,677
Unbilled energy incentives earned	4,954	3,139
	$ 10,870	**$ 7,816**

6. Prepaid Expenses and Other Current Assets

Prepaid and other current expenses generally consist of amounts paid to vendors for services that have not yet been performed. Accounts receivables, prepaid expenses and other current assets consist of the following at December 31

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Prepaid expenses and other current assets	4,409	2,039
	$ 4,409	**$ 2,039**

7. Property and Equipment, Net

As of December 31, 2022, the Company had $161.8 million of net investment in property and equipment, as outlined in the table below.

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Solar energy facilities	$ 168,336	$ 153,399
Building	1,076	917
Land	497	527
Leasehold improvements	118	44
Software and computers	335	178
Furniture and fixtures	281	33
Asset retirement	1,345	588
Construction in progress	5,227	14,381
Total property and equipment	177,215	170,067
Less: Accumulated depreciation	(15,422)	(9,709)
	$ 161,793	**$ 160,358**

Depreciation and Amortization expense for the twelve months ended December 31, 2022 and 2021 was $7.2 million and $5.4 million respectively.

8. Capitalized development cost and other long-term assets

Capitalized project costs are amounts paid to vendors that are related to the purchase and construction of solar energy facilities. Notes receivables and prepaids consist of amounts owed to the Company as well as amounts paid to vendors for services that have yet to be received by the Company. As of December 31, 2022 and 2021, the company had $8.5 million and $5.3 million of long-term assets as outlined in the table below:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Capitalized development cost and other long-term assets	$ 7,266	$ 3,286
Notes receivables and other long term prepaids	1,272	2,045
	$ 8,538	$ 5,331

Capitalized development cost relates to various projects that are under development for the period. As the Company closes either a purchase or development of new solar parks, these development costs are added to the final asset displayed in Property, and Equipment. If the company does not close on the prospective project, these cost are written off to Development Cost on the Consolidated Statement Operations and Comprehensive Income/(Loss). Refer to Note 18 for discussion of Development Cost in 2022.

Notes receivable and other long term prepaids relates to various notes outstanding, security deposits and various smaller prepayments issued for the period.

9. Goodwill

There were no business combinations for the year ended December 31, 2022. In 2021 the Company's goodwill balance increased relating to the Unisun business combination in April 2021, resulting in the acquisition of $0.7 million of

goodwill. The goodwill was partially offset by foreign exchange loss of $104 thousand, resulting in a total balance of goodwill of $1.9 million. Goodwill activity consisted of the following during the years ended December 31, 2022 and 2021:

	Activity (in thousands)
Goodwill - Balance January 1, 2021	$ 1,350
Additions	657
Impairment	—
Foreign currency translation adjustment	(104)
Goodwill - Balance January 1, 2022	$ 1,903
Additions	—
Impairment	—
Foreign currency translation adjustment	(145)
Goodwill - December 31, 2022	**$ 1,758**

10. Accounts Payable, Deferred Income

Accounts payable represent amounts owed to suppliers of goods and services that the Group has consumed through operations. Deferred income relates to income related to Green certificates from Romania that have been received but not sold. Accounts payable and deferred income consist of the following at December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Accounts payable	$ 14,438	$ 12,441
Deferred income	4,954	3,139
	$ 19,392	**$ 15,580**

11. Accrued Liabilities

Accrued expenses relates various accruals for the entire group. Accrued interest represents the interest in debt not paid in 2022. Accrued liabilities consist of the following at December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Accrued expenses	$ 4,265	$ 2,181
Accrued interest	5,269	1,549
Other accrued	350	1,562
	$ 9,884	**$ 5,292**

12. Taxes Recoverable and Payable

Taxes recoverable and payable consist of VAT taxes payable and receivable from various European governments through group transactions in these countries. Taxes recoverable consist of the following at December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Taxes recoverable	$ 1,876	$ 5,461
Less: Taxes payable	1,135	1,734
	$ 741	**$ 3,727**

13. Green Bonds, Convertible and Non-convertible Promissory Notes

The following table reflects the total debt balances of the Company as December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Green bonds	$ 149,481	$ 147,238
Convertible debt, secured	9,609	10,193
Senior secured debt and promissory notes	33,500	20,261
Total debt	192,590	177,692
Less current maturities	(21,631)	(6,077)
Long term debt, net of current maturities	170,959	171,615
Less debt discount	(4,532)	(8,026)
Long term debt, net of debt discount	**$ 166,427**	**$ 163,589**

During the years ended December 31, 2022 and 2021, the Company incurred approximately $200 thousand and $4.5 million total in debt issuance costs respectively, related to the green bonds discussed below. The Company incurred immaterial debt issuance costs during the years ended December 31, 2022 and 2021 related to transactions other than the Green Bonds. Debt issuance costs are recorded as a debt discount, upon the close of the related debt transaction, in the Consolidated Balance Sheet. Interest expense stemming from amortization of debt discounts for the twelve months ended December 31, 2022 and 2021 was $4.4 million and $4.2 million, respectively.

Five-year debt maturities schedule:

(in thousands)	2023	2024	2025	2026	2027	Thereafter	Total
Gross Debt	$ 21,631	$ 161,688	$ 890	$ 890	$ 890	$ 6,601	$ 192,590
Total	**$ 21,631**	**$ 161,688**	**$ 890**	**$ 890**	**$ 890**	**$ 6,601**	**$ 192,590**

Related Party Convertible Note:

In December 2017, as subsequently amended in February 2019, the Company entered into a convertible note with VestCo Corp., an entity owned and controlled by the Company's CEO. The Company executed a Securities Purchase Agreement with VestCo Corp. and issued a convertible note with a principal amount of $292 thousand due at maturity on February 12, 2021. The note contained a 15% original issue discount (OID) and a 0% stated interest rate. The note was secured behind a third-party accredited investor via a US Uniform Commercial Code (UCC) US UCC filing on all assets of the Company. The note provided the holder a call option right exercisable at the earlier of (1) December 31, 2020 or (2) the achievement of certain share price milestones on a national stock exchange. The note provided the Company a redemption

right exercisable upon the achievement of certain share price milestones on a national exchange. The note was convertible, at any time at the option of the holder, at $0.20 per share. In conjunction with the issuance of the related party convertible note, the Company issued a warrant to purchase 619,522 shares of the Company's Class A common stock, exercisable at $0.25 per share, pre stock split, with a 4-year term. The Company recorded a debt discount of $79 thousand related to the warrant that was amortized as interest expense over the term of the note. As of December 31, 2021, the principal outstanding balance was $236 thousand. The note was converted by issuing 70,920 shares in June 2021 at $3.21 per share.

Senior secured debt:

In December 2018, PSM 20 GmbH & Co KG entered into a senior secured loan with Sparkasse Bank in Germany. The loan relates to and is secured by the acquisition of 7 photovoltaic installations as part of the PSM 20 GmbH & Co KG acquisition with a stated interest rate of 2.10% and a term of 18 years. The loan matures in December 2036. The principal outstanding was $2.43 million as of December 31, 2020 PSM 20 loan was settled in December 2021 for $56 thousand cash and the transfer of the assets from the 7 photovoltaic installations.

In April 2018, PSM 40 GmbH & Co KG entered into a senior secured loan with GLS Bank in Germany for $2.5 million. The loan relates to and is secured by the acquisition of 6 photovoltaic installations as part of the PSM 40 GmbH & Co KG acquisition, with a stated interest rate of 2.0%, payments of principal and interest due monthly and a term of 18 years. This loan matures April 2036. GLS forgave this loan in consideration of selling the solar park to a third party. This transaction was completed in July 2022 and resulted in a $168 thousand loss on disposal of asset recognized on the Consolidated Statement of Operations and Comprehensive Income/(Loss).

In January 2020, GRT 1.1 GmbH entered into a senior secured loan of approximately $825 thousand with DKB Bank in Germany. The relates to and is secured by the acquisition of 1 photovoltaic installation as part of the GRT GmbH acquisition, with a stated interest rate of 2.05% and payments of principal and interest due quarterly. This loan matures in September 2039. The principal outstanding was $660 thousand and $721 thousand as of December 31, 2022 and 2021, respectively.

In January 2020, ALTN HoldCo UG entered into a construction financing loan with the opportunity to borrow up to $3.6 million from DKB Bank in Germany. During 2020 the Company made draws from the loan totaling $1.30 million. The loan relates to and is secured by the construction of 6 photovoltaic installations in Germany with a stated interest rate of 1.74%. This loan matures in September 2039. The principal outstanding was $1.23 million and $1.3 million as of December 31, 2022 and 2021, respectively.

Promissory Note:

On September 30, 2015, AEG Plc entered into an agreement as part of the transaction with World Global Assets Pte. Ltd. (WGA), in conjunction with the spin out of WRMT, $492 thousand was assigned to various third parties as non-convertible promissory notes, with stated interest rate of 7.5% and a maturity date of December 31, 2020. The holder agreed to extend the maturity date of the debt through December 2022 and the principal balance continues to accrue interest at a stated rate of 7.5%. The Company had principal outstanding of $102 thousand and $479 thousand as of December 31, 2022 and 2021, respectively.

In October 2018, in order to complete additional solar park acquisitions in Germany, one of the Company's subsidiaries, Altam Inc., entered into a debt agreement with a third-party accredited investor, in connection with one of the Company's indirect German subsidiaries, PCG_HoldCo UG (PCG). The debt carries a stated interest rate of 12%, with principal and interest due at maturity, and a term of 2 years. The principal outstanding was $3.8 million and $3.62 million as of December 31, 2022 and 2021, respectively. The debt is currently past due. The Company began accruing interest at the default interest rate of 18% in October 2020 and accrued additional interest penalties in 2021 and 2022.The penalty interest is included in the Accounts Payable.

Convertible Promissory Notes:

In March 2021, the Company approved the issuance of $10.2 million (€9 million) of secured convertible loan notes. The notes have a 3-year term, accrue annual interest at a 10% stated rate and require interest payments every six months during the term. The notes are secured by a floating charge security over all property and assets of the Company, excluding the AEG ownership of Solis Bond Company DAC. All outstanding principal plus a premium of 120% is due 3 years from the date of issuance. The Company is entitled, at its sole option, to prepay the notes at a reduced premium of 110% on the second anniversary of the issuance. Between August 31, 2021 and March 9, 2023, the holders have the option to convert up to a total of 50% of the principal amount of the notes into shares of the Company's common stock at a price of $4.80 (€4.00) per share which would result in the issuance of 1,125,000 shares, if exercised. If at any time, the market price of the Company's ordinary shares is greater than $8.80 (€8.00) per share for 30 consecutive trading days, the Company is entitled to prepay the notes at 110% premium for any unconverted capital. The principal balance outstanding was $9.6 million and $10.2 million at December 31, 2022 and 2021 respectively.

There were no conversions of debt to equity in 2022.

Other Debt:

In January 2021, the Company approved the issuance by one of its subsidiaries, Solis Bond Company DAC, of a series of 3-year senior secured green bonds in the maximum amount of $242 million (€200 million) with a stated coupon rate of 6.5% + EURIBOR and quarterly interest payments. The bond agreement is for repaying existing facilities of approximately $40 million (€33 million), and funding acquisitions of approximately $87.2 million (€72.0 million). The bonds are secured by the Solis Bond Company's underlying assets. The Company raised approximately $125 million (€110.0 million) in the initial funding. In November 2021, Solis Bond Company DAC, completed an additional issue of $24 million (€20 million). The Tap was completed at an issue price of 102% of par value, corresponding to a yield of 5.5%. The Company raised $11.13 million (€10 million) in March 2022 at 97% for an effective yield of 9.5%. In connection with the bond agreement the Company incurred approximately $11.8 million in debt issuance costs. The Company recorded these as a discount on the debt and they are being amortized as interest expense over the contractual period of the bond agreement. As of December 31, 2022 and 2021, there was $149.5 and $147.2 million outstanding on the Bond.

As of December 31,2022 the Company Solis Bond Company DAC, was in breach of the three financial covenants under Solis' Bond terms. As of the date of this filing, Solis and a large portion (49%) of the bond holders have agreed in principle to the terms of the temporary waivers. In return for the waivers until 30 June 2023 and an amendment to the bond terms to allow for a change of control in Solis (which allows for the transfer of Solis and its subsidiaries underneath Clean Earth Acquisitions Corp. on Closing), Alternus is to raise additional equity and/or issue a subordinated loan of €14 million by May 15, 2023. If no firm term sheet for the equity or subordinated loan is in place by April 21, 2023, the Company has agreed to commence a Norwegian equity offering. Alternatively, Solis also has the option to divest a minimum of €50 million of assets by April 21, 2023, with sales proceeds to be used for a partial redemption of the bonds (at a redemption/call price of 105% until June 30, 2023 and 107.5% thereafter). In addition to the equity/sales cures, bondholders will also, no later than April 30, 2023, receive a preference share in an Alternus Midco, which will hold certain development projects in Spain and Italy. The shares will have preference on any distribution from Midco to Alternus up to €10 million, and Midco will divest assets to ensure repayment of the €10 million should the bonds not have been fully repaid at maturity (January 6, 2024). Finally, bondholders will receive a 1% amendment fee, which equates to €1.4 million.

In April 2021, the Company acquired 60% of the share capital of a Netherlands company, Unisun Energy Holding B.V. Unisun owns a building with an outstanding mortgage loan of $488 thousand (€432 thousand) as of December 31, 2022. The mortgage loan on the building carries an interest rate of 6.5%, principal and interest is due monthly through December 2039.

In August 2021, the Company's subsidiary, Blue Sky Energy, entered into an agreement with ING Bank, Netherlands for financing the Rotterdam Airport Project for approximately $9.5 million (€8.4 million). The loan has an interest rate of

1.55% per year for the first 10 years and increases to 2.19% per year for the remainder of the term. The loan matures in September 2036. The loan is secured by the airport project. The loan has an outstanding balance of $9.94 million as of December 31, 2022.

In December 2021, the Company's subsidiary, Alternus Energy Construction Holdings, entered into a $1.8 million (€1.6 million) secured note which matures in June 2023. The note proceeds were used to refund equity and costs associated with the Unisun acquisition and the Rotterdam Development Project Equity and is secured by the Rotterdam airport project. The note has an interest rate of 9%. The outstanding balance was $1.71 and $1.81 million at December 31, 2022 and 2021 respectively.

On December 21, 2022, Alternus Energy Group's wholly owned Irish subsidiaries, AEG JD 01 LTD and AEG MH 03 LTD entered in a financing facility with Deutsche Bank AG ("Lender"). This is a committed revolving debt financing of EUR 80,000,000 to finance eligible project costs for the acquisition, construction, and operation of installation/ready to build solar PV plants across Europe, including the capacity for the financing to be upsized via a EUR 420,000,000 uncommitted accordion facility to finance a pipeline of further projects across Europe with a total combined capacity of 600 MWp (the "Warehouse Facility"). The Warehouse Facility, which matures on the third anniversary of the closing date of the Credit Agreement (the "Maturity Date"), bears interest at Euribor plus an aggregate margin at a market rate for such facilities, which steps down by 0.5% once the underlying non-Euro costs financed reduces below 33.33% of the overall costs financed. The Warehouse Facility is not currently drawn upon, but once drawn, capitalizes interest payments until projects reach their commercial operations dates through to the Maturity Date; it also provides for mandatory prepayments in certain situations.

14. Leases

The Company determines if an arrangement is a lease or contains a lease at inception, or acquisition when the Company acquires a new park.. The Company has operating leases for corporate offices and land with remaining lease terms of 5 to 28 years.

Operating lease assets and operating lease liabilities are recognized based on the present value of the future lease payments over the lease term at the commencement date. As most of the Company's leases do not provide an implicit rate, the Company estimates its incremental borrowing rate based on information available at the commencement date in determining the present value of future payments. Lease expense related to the net present value of payments is recognized on a straight-line basis over the lease term.

The key components of the company's operating leases at December 31, 2022 were as follows:

	2022 (in thousands)
Operating Lease - Operating Cash Flows (Fixed Payments)	$ 1,121
Operating Lease - Operating Cash Flows (Liability Reduction)	932
New ROU Assets - Operating Leases	10,551
Weighted Average Lease Term - Operating Leases	21.54 yrs
Weighted Average Discount Rate - Operating Leases	7.10%

The Company's operating leases generally relate to the rent of office building space, as well as land and rooftops upon which the Company's solar parks are built. These leases include those that have been assumed in connection with the Company's asset acquisitions and business combinations. The Company's leases are for varying terms and expire between 2027 and 2051.

For the years ending December 31, 2022 and 2021, the Company incurred operating lease expenses of $987 thousand and $309 thousand, respectively. The following table summarizes the Company's future minimum contractual operating lease payments as of December 31, 2022.

As a part of the Witnica acquisition, the company acquired an operating lease to the land where the solar park is located. The estimated annual cost of the lease is $335 thousand. The lease commenced in 2021 and runs through 2050.

As a part of the Zachod acquisition, the company acquired several operating leases to the land where the solar parks are located. The estimated annual cost of the leases is $57 thousand. The lease commenced in 2021 and runs through 2045.

As a part of the Komorowo acquisition, the company acquired two operating leases to the land where the solar parks are located. The combined estimated annual cost of the leases is $75 thousand. The leases commenced in 2021 and run through 2046.

As a part of the Rakowic acquisition, the company acquired an operating lease to the land where the solar parks are located. The combined estimated annual cost of the leases is $6 thousand. The leases commenced in 2022 and run through 2046.

As a part of the Blue Sky Energy I.B.V. acquisition in 2021, the company acquired an operating lease to the land where the solar park is located. The estimated annual cost of the leases is $83 thousand. The leases commenced in 2021 and runs through 2046.

In March 2022, the Company entered a new lease for additional office space in Ireland with a term of 9 years. The estimated annual cost of the lease is $136 thousand.

In April 2022, the Company entered a new lease for office space in the US with a term of 7.5 years. The estimated annual cost of the lease is $147 thousand.

Maturities of lease liabilities as of December 31, 2022 were as follows:

Five-year lease schedule:	(in thousands)
2023	$ 793
2024	842
2025	865
2026	889
2027	913
Thereafter	16,236
Total lease payments	20,538
Less imputed interest	11,110
Total	$ 9,428

The Company had no finance leases in 2022.

15. Commitments and Contingencies

Litigation

From time to time the Company may be a defendant or plaintiff in various legal proceedings arising in the normal course of business. The Company knows of no material, active, pending or threatened proceeding against management or Company subsidiaries, nor is it, or any subsidiary, involved as a plaintiff or defendant in any material proceeding or pending litigation.

There is no other action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, litigation claim to the knowledge of the executive officers of the Company or any of its subsidiaries, threatened against or affecting the Company, its common stock, any of Company subsidiaries or any of Alternus's companies or its subsidiaries' officers or directors in their capacities as such, in which an adverse decision could have a material adverse effect.

16. Asset Retirement Obligations

The Company's AROs mostly relate to the retirement of solar park land or buildings. The discount rate used to estimate the present value of the expected future cash flows for the year ended December 31, 2022 and 2021 was 7.1% and 6%, respectively.

		Activity
ARO Liability - January 1, 2021	**$**	**167**
Additional obligations incurred		449
Accretion expense		23
Foreign exchange loss (gain)		(14)
ARO Liability - December 31, 2021	**$**	**625**
Additional obligations incurred		733
Accretion expense		76
Foreign exchange loss		26
ARO Liability - December 31, 2022	$	**1,461**

17. Shareholders' Equity

Common Stock Issuances:

In January 2021, the Company completed a private placement, consisting of a share capital increase for a total amount of $28.3 million, by issuing 13,636,364 Shares, with a nominal value of $0.012 (€0.01) each, at a subscription price of $2.44 (kr20.60) per share.

In January 2021, the Company approved the assignment of three convertible promissory notes, in the principal amounts of $500 thousand, $250 thousand, and $236 thousand, respectively, from the Company's subsidiary, Altam Inc., to the Company and the subsequent conversion of those three notes, resulting in the issuance of 295,920 ordinary shares of the Company.

In June 2021, the Company granted warrant extensions to IDC DR Fund. In June of 2021, the Company completed a private placement consisting of a share capital increase for a total amount of $7.0 million (kr70 million), by issuing 2,500,000 shares, with a nominal value of $0.012 (€0.01) each, at a subscription price of $3.27 per share (NOK28 per share).

In June 2021, the Company approved the assignment of a convertible promissory note, in the principal amounts of $236 thousand, from the Company's subsidiary, Altam Inc., to the Company and the subsequent conversion of that note, resulting in the issuance of 70,920 ordinary shares of the Company.

In August 2021, the Company approved the assignment of 50,000 ordinary shares to Unisun principals as part of the business combination with Unisun. These shares have a fair value of $152 thousand calculated based on the share price of $3.05, as of the date of issuance.

On December 8, 2021, the Company granted 43,000 stock options to the Company's directors, employees, and consultants under the 2021 Plan, which immediately vested on the grant date and have a contractual term of 10 years.

In June 2022, the Company approved the assignment of 30,000 ordinary shares to Cloudfield, a consulting firm, principal as compensation for services provided. These shares have a fair value of $63 thousand calculated based on the share price of $2.12, as of the date of issuance.

Warrants

As of December 31, 2022 and 2021, warrants to purchase up to 220,182 and 817,704 respectively, shares of restricted Class A common stock were issued and outstanding. These warrants related to financing activities and were recorded as a debt discount using the relative fair value method, which is amortized to using the effective interest method to interest expense over the term of the related debt instrument. The company did not issue any additional warrants in 2022 and 597,522 warrants expired during 2022.

	Warrants		Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)
Outstanding – December 31, 2021	817,704	$	2.45	1.11
Issued during the year	—		—	—
Expired during the year	(597,522)		—	—
Outstanding – December 31, 2022	220,182		2.45	0.55
Exercisable – December 31, 2022	**220,182**	**$**	**2.45**	**0.55**

18. Development Cost

The Company depends heavily on government policies that support our business and enhance the economic feasibility of developing and operating solar energy projects in regions in which we operate or plan to develop and operate renewable energy facilities. The Company can decide to abandon a project if there is material change in budgetary constraints, political factors or otherwise, governments from time to time may review their laws and policies that support renewable energy and consider actions that would make the laws and policies less conducive to the development and operation of renewable energy facilities. Any reductions or modifications to, or the elimination of, governmental incentives or policies that support renewable energy or the imposition of additional taxes or other assessments on renewable energy, could result in, among other items, the lack of a satisfactory market for the development and/or financing of new renewable energy projects, our abandoning the development of renewable energy projects, a loss of our investments in the projects and reduced project returns, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Development cost was $23.9 million for the year ended December 31, 2022, due to primarily to abandoning of development of renewable energy projects in Poland. The table below summarizes the development cost:

Project 1	$	11,896
Project 2		4,425
Project 3		1,007
Miscellaneous development cost		6,597
Total	**$**	**23,925**

These costs were primarily driven by Project 1 in Poland as a 45 million PLN (approximately $9.6 million) "breakup fee" applied when the Company did not close on the project. Of the $9.6 million due to the seller, $4.2 million has been paid and approximately $5.4 million is in Accounts Payable on the Consolidated Balance Sheet.

Project 2 is an Italian project with a commercial operation date (COD) outside of the Company's required timeline. The Company determined that the construction phase would be long and costly for the project to be financially beneficial and did not close.

Projects 3 was an agreement with a Spanish developer, for an initial payment of $566 thousand (€500 thousand), plus an additional payment of $7.36 million (€6.5 million) to be made by November 30th as partial payment towards, and in exchange for, the immediate acquisition of 100% of the ownership interests in 2 Spanish SPVs pursuant to a stock purchase agreement (SPA) that one of our Spanish subsidiaries signed with the seller in April of 2022. As of December 31, 2022, the parties are negotiating an amendment whereby all payments are immediately suspended until December 2025, and the agreement and the SPA will be terminated immediately upon, and subject to, Alternus' receipt of a payment from the seller which shall equal 70% of Alternus' total payments of to seller to date.

Miscellaneous development cost relates to cost associated with projects abandoned during various phases, due to lack of technical, legal, or financial feasibility.

19. Stock-Based Compensation

In June 2019, the Board of Directors approved the Company's 2019 Stock Incentive Plan (the "2019 Plan"). The 2019 Plan provides for the grant of non-statutory stock options, incentive stock options, stock appreciation rights, stock grants, and stock units (collectively, the "Awards"). Awards may be granted under the 2019 Plan to our employees, directors, and consultants (collectively, the "Participants"). The maximum number of shares of common stock available for issuance under the 2019 Plan is 1,350,000. The shares of common stock subject to stock awards granted under the 2019 Plan that expire, are forfeited because of a failure to vest, or otherwise terminated without being exercised in full will return to the 2019 Plan and be available for issuance under the 2019 Plan.

On November 23, 2020, the Company issued all of the 1,350,054 stock grants to the Company's employees under the Corporation's 2019 Stock Incentive Plan, immediately 100% vested and issued. There was no quoted price at the time of issuance as the Company was private. The Company took the last quoted price from the OTC Market on November 11th, 2020, which was $0.015 post-split to determine the value of the stock compensation of $20 thousand.

In December 2021, the Board of Directors approved the Company's Employee Share Option Plan (the "2021 Plan"). The 2021 Plan provides for the grant of incentive stock options and non-statutory stock options (collectively, the "Awards"). Awards may be granted under the 2021 Plan to our employees, directors, and contractors (collectively, the "Participants"). The maximum number of options of common stock available for issuance under the 2021 Plan is 2.5 million. On December 8, 2021, the Company granted 43,000 stock options to the Company's directors, employees, and consultants under the 2021 Plan, which immediately vested on the grant date and have a contractual term of 10 years.

Stock Options

The Company recorded no stock compensation expense for the year ended December 31, 2022 and $56 thousand related to stock options for the year ended December 31, 2021. All stock-based compensation expense is included in selling, general and administrative expense in the consolidated statements of operations.

The following table summarizes the assumptions used to estimate the fair value of stock options granted during the year ended December 31, 2022 by using the Black-Scholes-Merton stock option pricing valuation model. The Company did not grant any stock options during the year ended December 31, 2021.

Weighted-average risk-free interest rate	1.27%
Expected term (in years)	5.0
Expected volatility	49%
Dividend yield	0%

The following table summarizes stock option activity for the year ended December 31, 2022:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
				(in thousands)
Outstanding, December 31,2020	—	—		
Granted	43,000	$ 2.98		
Exercised	—	—		
Expired or Forfeited	—	—		
Outstanding, December 31, 2021	43,000	$ 2.98	9.9	15
Granted	—	—	—	—
Exercised	—	—	—	—
Expired or Forfeited	—	—	—	—
Outstanding - December 31, 2022	43,000	$ 2.98	8.9	15
Exercisable - December 31, 2022	43,000	$ 2.98	8.9	15

The weighted-average grant-date fair value of stock options granted was $1.31 for the year ended December 31, 2022. The total fair value of options vested during the years ended December 31, 2022 and 2021 was $0 and $56 thousand, respectively. As of December 31, 2022, there was no unrecognized compensation cost related to stock options.

Restricted Stock Awards

During the years ended December 31, 2022 and December 31, 2021 no RSAs were granted by the Company.

The Company recorded no stock-based compensation expense for the year ended December 31, 2022 and $419 thousand related to RSAs for the year ended 2021. All stock-based compensation expense is included in selling, general and administrative expense in the consolidated statements of operations. As of December 31, 2021, there was an immaterial amount of unrecognized compensation cost related to nonvested RSAs, which was recognized in 2021.

20. Geographical Information

The Company has one reportable segment, reflecting the aggregation of the Company's operating segments that consist of PV operations by geographical region. The decision-making group is the senior executive management team which

consists of Vincent Brown, Chief Executive Officer, Joseph Duey, Chief Financial Officer, and Taliesin Durant, Chief Legal Officer. The following tables present geographic information related to the Company's single reportable segment.

Revenues	Year Ended December 31,	
	2022	**2021**
	(in thousands)	
Italy	$ 3,354	$ 3,665
Romania	13,710	13,964
Germany	201	187
Netherlands	4,528	1,340
Poland	10,709	2,237
United States	24	—
Total	**$ 32,526**	**$ 21,393**

Cost of Revenues	Year Ended December 31,	
	2022	**2021**
	(in thousands)	
Italy	$ 812	$ 711
Romania	3,268	5,256
Germany	42	50
Netherlands	600	487
Poland	4,142	661
Total	**$ 9,224**	**$ 7,165**

Long Lived Assets	Year Ended December 31,	
	2022	**2021**
	(in thousands)	
Italy	$ 23,407	$ 25,305
Romania	44,759	48,753
Germany	1,927	4,371
Netherlands	25,416	22,949
Poland	75,033	63,917
Ireland	13,702	10,161
United States	5,919	856
Spain	145	66
Total	**$ 190,308**	**$ 176,378**

21. Income Tax Provision

The tax effects of temporary differences and carryovers that give rise to significant components of net deferred tax assets are as follows.

	2022	2021
	(in thousands)	
Deferred Tax Assets		
NOL Carryforward	$ 10,745	$ 7,417
Capital Loss Carryforward	104	104
Stock Compensation	100	88
Interest Expenses	3,026	820
Lease Liabilities	1,907	—
Asset basis differences	582	656
Total Deferred Tax Assets	16,464	9,085
Less: Valuation Allowance	$ (14,558)	$ (9,085)
Net Deferred Tax Assets	1,906	—
Deferred tax liabilities		
Right of use assets	(1,907)	—
Net deferred tax assets (liabilities)	—	—

Reconciliation between the effective tax rate on income from continuing operations and the statutory tax rate is as follows:

Rate Reconciliation	2022	2021
Book Loss Before Tax	$ (36,279)	$ (18,415)
US Federal Tax: 21%	(7,619)	(3,867)
State Taxes, net of federal income tax effect: 12.60%	—	—
Tax Effect of:		
Permanent Differences	2,577	—
Reversal/Addition of the Prior year tax	578	(2,039)
Tax rate change	—	—
Expiration of Unused Capital Loss Carryforward	—	—
Change in valuation allowance	5,473,	5,707
Foreign tax rate differential	(1,004)	199
Provision For Income Taxes	$ 5	$ —

As of December 31, 2022 the Company has U.S. federal net operating loss carryovers of $14.9 million, less than $1 million of which will expire at various dates beginning in 2034 through 2037 if not utilized. Approximately $14 million of US federal net operating loss carryovers were generated in taxable years beginning after 2017 and have an unlimited carryforward period. As a result of Tax Cuts and Jobs Act ("TCJA") passed in 2017, net operating losses generated after 2017 have indefinite lives but limited in use to 80% of taxable income each year. Additionally, as of December 31, 2022, the Company has U.S. federal capital loss carryovers of $496 thousand, which will expire in 2023, if not utilized against capital gain.

In accordance with Section 382 of the Internal Revenue Code ("IRC"), deductibility of the Company's U.S. net operating loss carryovers may be subject to an annual limitation in the event of an ownership change as defined under the IRC Section 382 regulations. The Company is in the process of analyzing the changes in its capital structure to determine whether IRC Section 382 applies, and the effect this potential application has on the use of its net operating loss carryovers.

The Company also had foreign net operating loss carryovers of $53.3 million, which includes net operating loss carryovers of $36.7 million and $10.4 million in Ireland and Romania, respectively. The net operating loss carryover in Romania of $10.4 million expires in 2028. The remaining foreign net operating loss carryovers have unlimited carryforward periods.

In connection with the Company's adoption of ASC 842, the Company has deferred tax liabilities related to the right of use with respect to leased assets, and deferred tax assets related to corresponding lease liabilities. Significant components of such assets and liabilities are as follows:

Netherlands	$596 thousand
Poland	$993 thousand
USA	$175 thousand
Other	$143 thousand

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. After consideration of all the information available, management believes that significant uncertainty exists with respect to future realization of the deferred tax assets and has therefore established a full valuation allowance. For the years ended December 31, 2022, the change in valuation allowance was $5.4 million. The valuation allowance was $14.5 million and $9.09 million as of December 31, 2022 and 2021.

U.S. income tax has not been recognized on the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries that is indefinitely reinvested outside the United States. This amount becomes taxable upon a sale of the subsidiary in certain circumstances. Determination of the amount of any unrecognized deferred income tax liability on this temporary difference is not practicable because of the complexities of the hypothetical calculation.

The Company's non-US subsidiaries are in an accumulated deficit position. As a result of the TJCA, the Company is subject to the Global Intangible-Low Taxed Income Tax, or "GILTI." Provisions. Pursuant to GILTI, the Company would be required to include foreign subsidiary positive earnings in taxable income whether distributed, subject to certain exclusions. Due to foreign subsidiary deficits incurred in 2022, the Company is not required to include GILTI in computing its 2022 US taxable income.

Penalties and interest assessed by income tax authorities would be included in income tax expense. For the period ended December 31, 2022, the Company did not incur any penalties or interest. As of December 31, 2019, the Company accrued $180 thousand related to noncompliance of administrative filings for their foreign entities for the periods 2012 – 2017 which remains open and recorded on the balance sheet as of December 31, 2022 and 2021.

The Company has no unrecognized tax benefits as of December 31, 2022 and 2021. The Company has not taken uncertain tax positions in the filing of its respective entities' tax returns.

22. Related Party

Related party transactions are a transfer of resources, services, or obligations between the Company and a related party, regardless of whether a price is charged. Parties are considered related if one party has control, joint control, or a

significant influence over the other party in making financial and operating decisions. Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument.

Transactions with Directors	**2022**	**2021**
	(in thousands)	
Wikborg Sons Ltd AS fee, a related party to board member Rolf Wikborg	$ -	$ 718
Prepaid consulting agreement with Wikborg Sons Ltd AS, a related party board member Rolf Wikborg	-	340
Doonbeg Partners, a related party to board member John Thomas	-	1,007
Total	**$ -**	**$ 2,065**

The Company entered into a consulting agreement with Doonbeg Partners, which included Wikborg Sons Ltd AS in January 2020 for capital raising services. The fee paid relates to the successful placement of bonds and equity for the Company in 2021. The fees are fully paid and included with other placement fees relating to these transactions. No further fees are payable for any future financings under this agreement.

Director's remuneration	**2022**	**2021**
	(in thousands)	
Remuneration in respect of services as directors	$ 910	$ 648
Remuneration in respect to long term incentive schemes	—	—
Total	**$ 910**	**$ 648**

23. Subsequent Events

Management has evaluated subsequent events that have occurred through April 13, 2023, which is the date the financial statements were available to be issued and has determined that there were no subsequent events that required recognition or disclosure in the financial statements as of and for the year ended December 31, 2022, except as disclosed below.

On January 24, 2023, Alternus Energy Group Plc announced the filing by Clean Earth Acquisitions Corp. ("Clean Earth") (NASDAQ: CLIN), a publicly traded special purpose acquisition company, of a Proxy Statement with the U.S. Securities and Exchange Commission ("SEC") relating to the previously announced proposed business combination of Alternus Energy and Clean Earth.

On January 24, 2023 the Company issued a $1 million convertible promissory with a 10% annual interest rate, that matures January 24, 2025.

On January 11, 2023 the Company issued a €1 million (approximately $1.07 million) note with a 20% annual interest rate and a maturity on February 1. 2023. The loan was repaid on February 1,2023.

On February 27, 2023, Mr. John Masdal resigned as a member of the Board of Directors of Alternus Energy Group Plc.

On March 1, 2023, the Company announced that its wholly owned subsidiary, Solis Bond Company DAC, is in breach of the three financial covenants under Solis' Bond terms. As of the date of this filing, Solis and a large portion (49%) of the bond holders have agreed in principle to terms of the temporary waivers. In return for the waivers until 30 June 2023 and an amendment to the bond terms to allow for a change of control in Solis (which allows for the transfer of Solis and its subsidiaries underneath Clean Earth Acquisitions Corp. on Closing), Alternus is to raise additional equity and/or issue a subordinated loan of €14 million by May 15, 2023. If no firm term sheet for the equity or subordinated loan is in place by April 21, 2023, the Company has agreed to commence a Norwegian equity offering. Alternatively, Solis also has the option

to divest a minimum of €50 million of assets by April 21, 2023, with sales proceeds to be used for a partial redemption of the bonds (at a redemption/call price of 105% until June 30, 2023 and 107.5% thereafter). In addition to the equity/sales cures, bondholders will also, no later than April 30, 2023, receive a preference share in an Alternus Midco, which will hold certain development projects in Spain and Italy. The shares will have preference on any distribution from Midco to Alternus up to €10 million, and Midco will divest assets to ensure repayment of the €10 million should the bonds not have been fully repaid at maturity (January 6, 2024). Finally, bondholders will receive a 1% amendment fee, which equates to €1.4 million.