

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number **001-35436**

TECNOGLASS INC.

(Exact Name of Registrant as Specified in Its Charter)

Cayman Islands
(State or Other Jurisdiction of
Incorporation or Organization)

98-1271120
(I.R.S. Employer
Identification Number)

Avenida Circunvalar a 100 mts de la Via 40
Barrio Las Flores, Barranquilla
Colombia
(Address of Principal Executive Offices)

(Zip Code)

(+57)(605) 373 4000

(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares	TGLS	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirement for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer", "accelerated filer," "smaller reporting company," and "emerging growth company" in

Rule 12b-2 of the Exchange Act.:

Large accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of June 30, 2022 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of the ordinary shares held by non-affiliates of the registrant was approximately \$334,038,048 based on its last reported sales price of \$17.55 on the NYSE.

As of February 28, 2023, there were **47,674,773** ordinary shares, \$0.0001 par value per share, outstanding.

Documents Incorporated by Reference: None.

TECNOGLASS INC.
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FORWARD LOOKING STATEMENTS AND INTRODUCTION

All statements other than statements of historical fact included in this Annual Report on Form 10-K (this “Form 10-K”) including, without limitation, statements under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” regarding our financial position, business strategy and the plans and objectives of management for future operations, are forward looking statements. When used in this Form 10-K, words such as “anticipate,” “believe,” “estimate,” “expect,” “intend” and similar expressions, as they relate to us or our management, identify forward looking statements. Such forward looking statements are based on the beliefs of management, as well as assumptions made by, and information currently available to, our management. Actual results could differ materially from those contemplated by the forward-looking statements as a result of certain factors detailed in our filings with the Securities and Exchange Commission. You are urged to carefully review the disclosures we make concerning risks and uncertainties that may affect our business and future financial performance, including those made below under “Summary Risk Factors” and in “Item 1A, Risk Factors” in this Form 10-K. Except as required by law, we do not undertake, and hereby disclaim, any obligation to update any forward-looking statements, which speak only as of the date on which they are made. All subsequent written or oral forward looking statements attributable to us or persons acting on our behalf are qualified in their entirety by this paragraph.

Risk Factors Summary

Investors should consider the risks and uncertainties described below that may affect our business and future financial performance. These and other risks and uncertainties are more fully described in “Item 1A, Risk Factors” in this Form 10-K. Additional risks not presently known to us or that we currently deem immaterial may also affect us. If any of these risks occur, our business, financial condition or results of operations could be materially and adversely affected.

As more fully set forth under “Item 1A, Risk Factors” in this Form 10-K, principal risks and uncertainties that may affect our business, financial condition or results of operations include the following risks:

Risks Related to Our Business Operations

- We operate in competitive markets, and our business could suffer if we are unable to adequately address potential downward pricing pressures and other factors that may reduce operating margins.
- Failure to maintain the performance, reliability and quality standards required by our customers could have a materially negative impact on our financial condition and results of operation.
- The volatility of the cost of raw materials used to produce our products could materially adversely affect our results of operations in the future.
- We rely on third-party suppliers for raw materials and third-party transportation, each of which subjects us to risks and costs that we cannot control, and which risks and costs may materially adversely affect our operations.
- We may not realize the anticipated benefit through our joint venture with Saint-Gobain and the planned construction of a new plant as part of the joint venture may not be completed as planned.
- Our success depends upon our ability to develop new products and services, integrate acquired products and services and enhance existing products and services through product development initiatives and technological advances; any failure to make such improvements could harm our future business and prospects.
- The home building industry and the home repair and remodeling sector are regulated and any increased regulatory restrictions or changes in building codes could negatively affect our sales and results of operations.
- Changes in building codes could lower the demand for our impact-resistant windows and doors.
- Equipment failures, delays in deliveries and catastrophic loss at our manufacturing facility could lead to production curtailments or shutdowns that prevent us from producing our products.
- Our reliance on a single facility subjects us to concentrated risks.
- Customer concentration and related credit, commercial and legal risk may adversely impact our future earnings and cash flows.
- If new construction levels and repair and remodeling markets decline, such market pressures could negatively affect our results of operations.
- Our business involves complex manufacturing processes that may cause personal injury or property damage, subjecting us to liabilities, possible losses, and other disruptions of our operations in the future, which may not be covered by insurance.
- The nature of our business exposes each of our subsidiaries to product liability and warranty claims that, if adversely determined, could negatively affect our financial condition and results of operations and the confidence of customers in our products.
- We are subject to potential exposure to environmental liabilities and are subject to environmental regulation and any such liabilities or regulation may negatively affect our costs and results of operations in the future.
- Weather can materially affect our business and we are subject to seasonality.
- Our results of operations could be significantly affected by foreign currency fluctuations and currency regulations.
- We are dependent on certain key personnel, the loss of whom could materially affect our financial performance and prospects in the future.
- Certain of our officers and directors have been involved in litigation, investigations or other proceedings and may be so again in the future, the defense or prosecution of such matters could be time-consuming and could divert our management’s attention, and may have an adverse effect on us.

- We have entered into significant transactions with affiliates or other related parties, which may result in conflicts of interest.
- The interests of our controlling shareholders could differ from the interests of our other shareholders.
- We conduct all of our operations through our subsidiaries and will rely on payments from our subsidiaries to meet all of our obligations and may fail to meet our obligations if our subsidiaries are unable to make payments to us.
- Our indebtedness could adversely affect our financial health and prevent us from fulfilling our obligations.

Risks Related to Colombia and Other Countries Where We Operate

- Our operations are located in Colombia, which may make it more difficult for U.S. investors to understand and predict how changing market and economic conditions will affect our financial results. It also may be difficult or impossible to enforce judgments of courts of the United States and other jurisdictions against our Colombian subsidiaries or any of their directors, officers and controlling persons.
- Economic and political conditions in Colombia may have an adverse effect on our financial condition and results of operations.
- The Colombian Government and the Central Bank exercise significant influence on the Colombian economy.
- Factors such as Colombia’s growing public debt and fluctuating exchange rates could adversely affect the Colombian economy.
- Economic instability in Colombia could negatively affect our ability to sell our products.
- Government policies and actions and judicial decisions in Colombia could significantly affect our results of operations and financial condition in the future.
- We are dependent on sales to customers outside Colombia and any failure to make these sales may adversely affect our operating results in the future.

Risks Related to Us and Our Securities

- Because we are incorporated under the laws of the Cayman Islands, you may face difficulties in protecting your interests, and your ability to protect your rights through the U.S. Federal courts may be limited.
- If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements could be impaired, which could adversely affect our business.
- Anti-takeover provisions in our organizational documents and Cayman Islands law may discourage or prevent a change of control, even if an acquisition would be beneficial to our shareholders, which could depress the price of our ordinary shares and prevent attempts by our shareholders to replace or remove our current management.
- We are a “controlled company,” controlled by Energy Holding Corp., whose interest in our business may be different from ours or yours.
- We cannot assure you that we will continue to pay dividends on our ordinary shares, and our indebtedness, future investments or cashflow generation could limit our ability to continue to pay dividends on our ordinary shares.
- If a United States person is treated as owning at least 10% of the value or voting power of our shares, such holder may be subject to adverse U.S. federal income tax consequences.

Risks Related to the COVID-19 Global Pandemic

- We face various risks related to health epidemics, pandemics and similar outbreaks, including the global outbreak of COVID-19, which may have material adverse effects on our business, financial position, results of operations and/or cash flows.

Unless the context otherwise requires:

- references to the “Company”, “Tecnoglass”, the “group” and to “we”, “us” or “our” are to Tecnoglass Inc., a Cayman Islands exempted company, and its subsidiaries;
- references to “TG” are to Tecnoglass S.A.S;
- references to “ES” are to C.I. Energía Solar S.A.S E.S. Windows;
- references to “ESW” are to ES Windows LLC, our indirect wholly-owned subsidiary, based in Florida;
- References to “VS” are to Ventanas Solar S.A.;
- references to “Tecno LLC” are to Tecnoglass LLC;
- references to “Tecno RE” are to Tecno RE LLC;
- references to “ES Metals” are to ES Metals S.A.S.; and
- references to “GM&P” are to GM&P Consulting and Glazing Contractors Inc.

Our registered trademarks include El Poder de la Calidad, Energia Solar, Tecnoglass, Alutions, Eswindows, Tecnobend, Tecnoair, Tecnosmart, ECOMAX by ESWINDOWS, ESWINDOWS Interiors, ESW Windows and Walls, Solartec by Tecnoglass, Prestige by ESWINDOWS, Eli by ESWINDOWS, Alessia by ESWINDOWS, Elite Line by ESWindows, ULTRAVIEW by Tecnoglass, and MULTIMAX by ESWINDOWS.

MARKET AND INDUSTRY DATA

In this Form 10-K, we refer to information and statistics regarding our industry, the size of certain markets and our position within the sectors in which we compete. Some of the market and industry data contained in this Form 10-K is based on independent industry and trade publications or other publicly available information, or information published by our customers, that we believe to be reliable sources, while other information is based on our good-faith estimates, which are derived from our review of internal surveys, as well as independent sources listed in this Form 10-K, and the knowledge and experience of our management in the markets in which we operate. The estimates contained in this Form 10-K have also been based on information obtained from our customers, suppliers and other contacts in the markets in which we operate. Although we believe that these independent sources and internal data are reliable as of their respective dates, the information contained in them has not been independently verified, nor have we sought consent to refer to their reports, and we cannot assure you as to the accuracy or completeness of this information. As a result, you should be aware that the market and industry data and the market share estimates set forth in this Form 10-K, and beliefs and estimates based thereon, may not be reliable. We have made rounding adjustments to reach some of the figures included in this Form 10-K for ease of presentation. As a result, amounts shown as totals in some tables may not be arithmetic aggregations of the amounts that precede them.

PART I

Item 1. Business.

Overview

Tecnoglass is a leading vertically-integrated manufacturer, supplier and installer of architectural glass, windows, and associated aluminum products for the global commercial and residential construction industries. Tecnoglass was rated the third largest glass fabricator in 2022 by Glass Magazine. Headquartered in Barranquilla, Colombia, the Company operates out of a 4.1 million square foot vertically-integrated, state-of-the-art manufacturing complex that provides easy access to the Americas, the Caribbean, and the Pacific. Tecnoglass supplies over 1,000 customers in North, Central and South America, with the United States accounting for 96% of revenues. Tecnoglass's tailored, high-end products are found on some of the world's most distinctive properties, including One Thousand Museum (Miami), Paramount Miami Worldcenter (Miami), Hub50House (Boston), Via 57 West (New York), AE'O Tower (Honolulu), Salesforce Tower (San Francisco), Trump Plaza (Panama), and Departmental Legislative Assembly (Bolivia).

Our Business

General

We are a vertically-integrated manufacturer, supplier and installer of architectural glass, windows and associated aluminum products for the global commercial and residential construction markets. With a focus on innovation, combined with providing highly specified products with the highest quality standards at competitive prices, we have developed a leadership position in each of our core markets. In the United States, which is our largest market, we were ranked as the third largest glass fabricator in 2022 by Glass Magazine. In addition, we believe we are the leading glass transformation company in Colombia. Our customers, which include developers, general contractors or installers for hotels, office buildings, shopping centers, airports, universities, hospitals and multi-family and residential buildings, look to us as a value-added partner based on our product development capabilities, our high-quality products, and our unwavering commitment to exceptional service.

We have 40 years of experience in architectural glass and aluminum profile structure assembly. We transform a variety of glass products, including tempered safety, double thermo-acoustic and laminated glass. Our finished glass products are installed in a wide variety of buildings across a number of different applications, including floating facades, curtain walls, windows, doors, handrails, and interior and bathroom spatial dividers. We also produce aluminum products such as profiles, rods, bars, plates and other hardware used in the manufacturing of windows.

Our products are manufactured in a 4.1 million square foot, state-of-the-art manufacturing complex in Barranquilla, Colombia that provides easy access to North, Central and South America, the Caribbean and the Pacific. Our products can be found on some of the most distinctive buildings in these regions, including One Thousand Museum (Miami), Paramount Miami Worldcenter (Miami), Hub50House (Boston), Via 57 West (New York), Ae'o Tower (Honolulu), Salesforce Tower (San Francisco), Trump Plaza (Panama), and Departmental Legislative Assembly (Bolivia). Our track record of successfully delivering high profile projects has earned us an increasing number of opportunities across the United States, evidenced by our expanding backlog and overall revenue growth.

Our structural competitive advantage is underpinned by our low-cost manufacturing footprint, vertically integrated business model and geographic location. Our integrated facilities in Colombia and distribution and services operations in Florida provide us with a significant cost advantage in both manufacturing and distribution, and we continue to invest in these operations to expand our operational capabilities. Our lower cost manufacturing footprint allows us to offer competitive prices for our customers, while also providing innovative, high quality and high value-added products, together with consistent and reliable service. We have historically generated high margin organic growth based on our position as a value-added solutions provider for our customers.

We have a strong presence in the Florida market, which represents a substantial portion of our revenue stream and backlog. Our success in Florida has primarily been achieved through sustained organic growth, with further penetration taking place into other highly populated areas of the United States. As part of our strategy to become a fully vertically integrated company, we have supplemented our organic growth with some acquisitions that have afforded us incremental control over our supply chain while maintaining efficient lead times. For instance, in 2016, we completed the acquisition of ESW, which gave us control over the distribution of products into the United States from our manufacturing facilities in Colombia. In March 2017, we completed the acquisition of GM&P, a consulting and glazing installation business that was previously our largest installation customer.

The continued diversification of the group's presence and product portfolio is a core component of our strategy. In particular, we are actively seeking to expand our presence in United States outside of Florida. Since 2017, we have been expanding our presence in U.S. residential markets which went from less than 5% of our sales to nearly 43% of our sales for the full year 2022. We believe that the quality of our products, coupled with our ability to price competitively given our structural advantages on cost and our efficient lead times given our vertical integration, will allow us to generate further growth in the future.

We have focused on working with *The Power of Quality*, always making sure that our vision of sustainability is immersed into every aspect of our business, including social, environmental, economic and governance variables ("ESG"), that help us make decisions and create value for our stakeholders. We carry out a series of initiatives based on our global sustainability strategy, which is supported on three fundamental pillars: promoting an ethical and responsible continuous growth, leading eco-efficiency and innovation and empowering our environment. As part of this strategy, the Company has voluntarily adhered to UN Global Compact Principles since 2017. In 2021, in pursuit of our cooperation with the attainment of the Sustainable Development Goals ("SDGs"), we joined a program to dynamize, strengthen and make visible the management of greenhouse gas emissions as a carbon neutral strategy set out by the Colombian government by 2050.

Competitive Strengths

Our success has been grounded in our ability to offer high quality products at competitive prices. We are able to competitively price our products, while still achieving strong margins, due to a number of unique cost advantages. In addition to our vertically integrated business model, we benefit from structural cost advantages in manufacturing and distribution due to our geographic location. Alongside these structural advantages, we are committed to quality, product innovation and customer service. We believe these competitive strengths create a significant barrier to entry, which is underpinned and sustained by the experience of our senior management team and the loyalty of our highly motivated employees.

Vertical Integration

We believe we are unique within the industry in vertically integrating the purchasing of raw materials and the manufacturing, distribution and installation of our products. By vertically integrating each of these functions, we are able to eliminate inefficiencies throughout the supply chain and generate strong margins. These efficiencies are only enhanced as our business grows and we benefit from operating leverage and economies of scale.

On May 3, 2019, we consummated a joint venture agreement with Compagnie de Saint-Gobain S.A. ("Saint-Gobain"), a world leader in the production of float glass, a key component of our manufacturing process, whereby we acquired a 25.8% minority ownership interest in Vidrio Andino Holdings S.A.S ("Vidrio Andino"), a Colombia-based subsidiary of Saint-Gobain. The purchase price for our interest in Vidrio Andino was \$45 million, of which \$34.1 million was paid in cash and \$10.9 million was paid through the contribution of land on December 9, 2020. On October 28, 2020, we acquired said land from a related party and paid for it through the issuance of an aggregate of 1,557,142 ordinary shares of the Company, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price as of October 27, 2020.

The joint venture agreement includes plans to build a new plant in Galapa, Colombia that will be located approximately 20 miles from our primary manufacturing facility, in which we will also have a 25.8% interest. The new plant will be funded with proceeds from the original cash contribution made by the Company, operating cash flows from the Bogota plant, debt incurred at the joint venture level that will not be consolidated into the Company and an additional contribution by us of up to approximately \$12.5 million if needed (based on debt availability or other sources).

This joint venture has solidified our vertical integration strategy by providing us with an interest in the first stage of our production chain, while securing ample glass supply for our expected production needs.

This business model also allows us to maintain strict quality control, from the sourcing of input materials to the installation of our finished products. Our vertically integrated business model therefore enables us to provide consistent high-quality products to our end-customers. Ownership of the entire production process also reduces our dependence on third parties, allowing us to respond more quickly to our customers' needs and reducing lead-times for new or customized products.

Our vertical integration allowed us to successfully navigate the global supply chain constraints of 2020 and 2021 which severely impacted many sectors of the global economy, including shortages in supply of materials, slowdown of logistic operations and cost inflation.

Cost of Production Advantages

We enjoy significant cost advantages because of our location in Colombia that we would not be able to realize if our production facility was located in the United States. We believe we are able to offer competitive prices, in part, as a result of our low labor and energy costs relative to those in the United States while maintaining efficient transportation costs into the markets we serve. Employees at our manufacturing facilities in Colombia earn above the local minimum wage, yet these wages are typically much less than the cost of a comparable employee located within the United States. In 2018, we completed a solar panel project with the capacity to generate approximately five megawatts of eco-friendly energy on-site at our manufacturing facilities. This investment has allowed us to reduce energy costs, while also having a positive tax effect due to our ability to deduct the investment from our taxable income in compliance with applicable Colombian tax regulations. To date, more than 20,000 solar panels have been installed on the roofs of Colombian manufacturing plants to generate reliable and clean energy. While enhancing production cost efficiencies, along with ESG initiatives, the Company entered into a long-term power purchase agreement in a new project that will cogenerate 9MW through two gas engines with a heat recovery system.

Low-Cost Distribution

Our principal manufacturing facility is located in Barranquilla, Colombia, which is strategically located near three of the country's major ports: Barranquilla, Cartagena and Santa Marta. These ports provide us with maritime access to all major global markets. The Barranquilla port is just 16 kilometers away from our production facility. From there, our products can be shipped to Miami in three days and New York in one week. In addition, for short lead-time projects, our products can be transported by air from Barranquilla to Houston or Miami within a few hours.

As a result of the significant trade imbalance between Colombia and the United States for goods transported in container ships, we are able to transport our products to the United States in containers that would otherwise return empty to the United States. We are therefore able to distribute our products to the eastern, southern and western regions of the United States at very attractive rates, which are often lower than a comparable domestic land shipment within the United States. Demand for high-specification architectural glass is typically highest in large coastal cities, which we are able to ship to directly, while most of our competitors must utilize relatively expensive land transportation services to deliver finished goods to these sites.

Commitment to Quality and Innovation

Our commitment to quality is evidenced by our significant recent investments in land, warehousing space, machinery and equipment. Since 2012, we have invested more than \$400 million in the latest technologies to enhance the efficiency and accuracy of our production lines, and ultimately to improve the quality of the products that we deliver to our customers. We believe these significant investments position us to meet our growth objectives over the next several years. We operate state-of-the-art glass making equipment, glass laminating lines, aluminum presses and high-volume insulating equipment which facilitate more precise manufacturing, enabling us to offer a broader selection of and higher quality products and remain agile in responding to customer demands, while generating less raw material waste.

We believe our investments in technology within recent years have positioned us well for continued growth given the flexibility afforded by our current installed capacity, improved profitability and enhanced cash generation in the years ahead. Recent examples of our high return investments within the last two years include:

- Automation of six window assembly production lines, increasing efficiencies, labor and material waste costs with an estimated reduction of on-site damage by 30%;
- Additional aluminum expansion project to increase capacity by approximately 400 tons/month;
- Further automation of additional glass lines, increasing efficiencies on an end-to-end basis reducing lead times, headcount and on-site damage by approximately 40%;
- Upgrade vacuum magnetron sputter coating machinery which will allow to coat glass before tempering;
- Construction of 500,000 square feet warehouse with two numerical punching machines, two metal benders and a complete painting line;
- Automation of two centralized aluminum warehouses for storing, sorting and delivering extrusion matrices and aluminum profiles to our internal production processes that reduce lead times for the assembly of architectural systems and reduce on-site damage to materials.

Our quality assurance department maintains rigorous oversight over the production process to ensure the consistent production of high-quality products. In addition, we adhere to quality standards that meet all guidelines and requirements for the Insulating Glass Certification Council (“IGCC”) and Safety Glazing Certification Council (“SGCC”) certification programs.

Finally, our commitment to quality also extends to our partnerships and alliances. Most notably, for certain products we offer Kuraray Sentryglass®. These laminated glass interlayers are five times stronger than conventional laminating materials.

Superior Customer Service

In addition to manufacturing high quality products at competitive prices, our customer value proposition is supplemented by short lead-times, on-time delivery and after-sale support. Through the coordinated efforts of our sales teams, product specialists and field service teams, we deliver high quality service to our customers, from the initial order to the delivery and installation of our products. We believe our ability to accompany our clients throughout every phase of their projects’ engineering, consulting, manufacturing and installation along with our ability to coordinate these efforts as a one-stop-shop is a key differentiator from our competition.

High Barriers to Entry

The ability of new competitors to enter the markets that we serve is limited due to the technical certifications required on high specification building projects, such as IGCC, IqNet Icontec 14001 and ISO9001. We attribute our success, in large part, to our ability to produce a broad range of sophisticated products, as well as our reputation for delivering high quality, made-to-order architectural glass on time. Our employees have extensive training, knowledge and experience at manufacturing high specification products. We believe the vertically-integrated nature of our operations means that there are high barriers to successfully entering our markets and competing with us on price, quality and agility. In addition, the equipment needed to operate in the glass and window industry is expensive, therefore requiring significant upfront capital investment.

Loyal and Highly Motivated Employees

Capitalizing on our various competitive advantages also requires a skilled and dedicated workforce. We actively encourage and facilitate the development of our employees through rolling training programs, with multiple training sessions held every week. These programs increase the skills of our employees and are designed to allow our employees to keep pace with the new technologies being installed at our manufacturing facilities. We are committed to developing our employees and remaining at the forefront of technology in our industry. These investments have also helped us manage workplace injuries, with our rate of one accident per 28 workers per year, which is substantially lower than the average of one accident per 11 workers per year for manufacturing companies in Colombia.

We value our employees and invest in them and in our local communities. For several decades, our Tecnoglass ES Windows Foundation has committed resources to create projects to assist and contribute to the region's development. Through the foundation's scholarship program, over 300 students benefited in 2022, with grants to access higher education in different universities in Colombia. Our foundation funds local schools and institutions looking to improve social transformation and community development. Additionally, across our various programs, we engage with partners in numerous ways, supporting sports and healthy habits in younger generations. At the Tecnoglass ES Windows Foundation, we strive to make a difference for our people and local communities.

This and other initiatives have allowed us to maintain a strong relationship with the communities and our employees. We continuously strive to make a difference for our people, contributing to building a better future for the region and our country.

Strategy

We have identified the following strategic priorities that we believe are important in advancing our business:

Further Geographic Penetration in the United States

We have successfully established a leading reputation in the Florida construction market by providing high value, impact-resistant architectural glass products. Our products have become widely regarded in Florida for their quality and are certified in compliance with all U.S. regulations.

Sales in Florida comprised 91% of United States revenue in the year ended December 31, 2022. In recent years, we have successfully grown our geographic presence in the United States outside of Florida, particularly into markets along the east coast, and as a result, nearly 24% of our U.S. backlog is for projects outside of Florida. Coastal markets are particularly attractive to us, as they can be directly accessed by ship, resulting in transportation costs from our manufacturing facilities that are similar to our transportation costs to Florida. These regions are also affected by hurricanes, significant temperature fluctuations and other extreme forms of weather that foster demand for our products. We are actively expanding our sales presence in these coastal markets and have already successfully completed several projects in large U.S. markets such as New York, Boston, Washington D.C. and Baltimore as well as cities along the U.S. Gulf Coast, such as Houston.

We intend to continue growing the business organically outside of Florida. As we explore growth opportunities in new U.S. markets, we intend to leverage the strong reputation we have developed with national commercial construction contractors, architects and designers for providing high quality products at the most competitive prices.

Penetrate the U.S. Residential Market

In April 2017 we launched “ES Windows: Elite Collection” and “ES Windows: Prestige Collection” to target the U.S. residential new and replacement sectors. We have received significant interest for the new products within these categories to date and positive reactions from our customers. Currently, residential sales represent a considerable portion of our total sales, and we believe we will continue growing into this end market in the U.S through share gains, new products and a commitment to execution. We had a significant demand in the U.S. residential market, representing 43% of our total sales for the year ended December 31, 2022, compared to less than 5% for the year ended December 31, 2017, and 36% for the year ended December 31, 2021. The U.S. private residential construction market exceeded \$950 billion in spending during the twelve months ended December 31, 2022, according to the United States Census Bureau. Residential housing starts in the U.S. increased by 8.4% during December 2022 compared to December 2021, according to the U.S. Census Bureau. We believe that our core strengths that have facilitated our success to date, namely the quality of our products and the structural cost advantages that allows us to price our products competitively, will similarly contribute to our ongoing success and continued penetration into the U.S. residential end market in order to target several other geographies. In line with the geographic penetration strategy, the Company has started expanding its presence to other markets by opening product showrooms in other states. As of the date of this Annual Report, new showrooms in New York City and Charleston, SC have been opened to service its respective regions.

Continued Investment in Technology to Meet Evolving Demands

We have a track record of developing innovative new products, and we intend to continue our focus on new product opportunities in the future. We are constantly identifying shifts in global trends and customer needs and designing new products to meet those changes in demand. In order to continue this success, it is critical that we invest in the latest technologies available in our industry. For example, with the installation of our soft-coating facility, we became able to manufacture low emissivity glass that is energy efficient allowing us to meet growing demand for “green” products.

We operate state-of-the-art architectural glass making equipment, glass laminating lines, aluminum presses and high-volume insulating equipment, which facilitate more precise manufacturing and generate less raw material waste. We will seek to leverage this platform of cutting-edge equipment to adapt our products to evolving demands in both current and new markets. We expect that our focus on innovation, which is founded upon our investments in technology, will position us well to take advantage of new opportunities.

The Company has carried out enhancements at its glass and aluminum facilities to increase production capacity and automate operations. The Company anticipates that these high return investments will continue generating efficiencies in the production processes. The Company improved efficiency in its glass production during 2021 and 2022 by further automating certain key manufacturing processes to increase capacity, while reducing material waste and overall lead times. In 2020, we completed the automation of our first two centralized aluminum warehouses for storing, sorting and delivering aluminum profiles to our internal production processes that reduce lead times for the assembly of architectural systems and reduce on-site damage to materials which had a positive impact to our working capital through more effective inventory management. In 2022, we invested in additional automation and capacity expansion which will be fully operational by mid-2023. The Company expects to continue funding these capital investments mainly with cash on hand.

Rigorous Adherence to Quality Standards

Maintaining the high-quality standards for which we have become known is essential to the execution of our strategy. All of our internal processes are continually and independently supervised by Tecnoglass’s Quality Assurance department. The Quality Assurance department maintains rigorous oversight of optimization indicators covering energy, water, recyclable waste and other facets of the production process. Constant monitoring of these indicators is integral to ensuring that we consistently produce high quality products. Between 5% and 10% of our production is randomly selected to verify compliance with a variety of quality standards, such as water leaks, functionality, manufacturing and accessories, according to ASTM International (“ASTM”) and American Architectural Manufacturers Association (“AAMA”) rules.

These measures allow us to effectively detect issues and take specific actions to mitigate their reoccurrence. As we grow and our use of technology evolves, our Quality Assurance team must also evolve its tests, controls and remedies. We believe this rigorous adherence to quality control will ensure that we will continue to provide the highest quality products and, ultimately, promote customer satisfaction.

Products

We manufacture and sell the following products:

- *Low-e Glass* – Low emissivity glass manufactured by depositing metal particles on the surface of the glass inside a vacuum chamber. This product offers excellent thermal insulation designed to improve energy efficiency of buildings.
- *Laminated/Thermo-Laminated Glass* - produced by bonding two glass sheets with an intermediate film in-between. As a safety feature, this product fractures into small pieces if it breaks.
- *Thermo-Acoustic Glass* - manufactured with two or more glass sheets separated by an aluminum or micro-perforated steel profile. This product has a double-seal system that ensures the unit's tightness, buffering noise and improving thermal control. This product serves as an excellent noise barrier, which is used especially in zones close to airports, traffic or wherever there are unpleasant sounds.
- *Tempered Glass* - glass subject to a tempering process through elevated temperatures resulting in greater superficial elasticity and resistance than conventional glass.
- *Silk-Screened Glass* - special paint is applied to glass using automatic machinery and numerical control, which ensures paint homogeneity and an excellent finish.
- *Curved Glass* - produced by bending a flat glass sheet over a mold, using an automated heat process, which maintains the glass' physical properties.
- *Digital Print Glass* - digital printing allows any kind of appearance required by the client, offering versatility to projects.
- *Aluminum products* - sold through our Alutions brand includes bars, plates, profiles, rods and tubes used primarily in the manufacture of architectural glass settings including windows, doors, spatial separators and similar products.
- *Curtain Wall / Floating facades* - a non-structural window screen suspended outside a building and are available in many technical specifications for high performance required in high-rise buildings, resistant to strong winds and ensuring high quality standards.
- *Stick facade systems* – glass and aluminum facade elements are fixed to the structure of the building and the glass and spandrel are inserted in the grid on site available in many combinations to define colors, thickness, glass types and finishes, and types of ventilation and design complements.
- *Windows and Doors* - line of window and door products defined by the different types of glass finish, such as normal, impact resistant, hurricane-proof, safety, soundproof and thermal. Additionally, they are available in numerous structures, including fixed body, sliding windows, casement windows, hung windows, sliding doors and swinging doors.
- *Interior dividers and Commercial display windows* - commercial and interior display windows with a broad range of profiles, colors and crystal finishes, as well as bathroom stall dividers, office cubicle separators and closets. Products combine functionality, aesthetics and elegance and are available in a broad range of structures and materials.
- *Hurricane-proof windows* - combine heavy-duty aluminum or vinyl frames with special laminated glass to provide protection from hurricane-force winds up to 180 mph and wind-borne debris by maintaining their structural integrity and preventing penetration by impacting objects.
- *Other* – awnings, structures, automatic doors and other components of architectural systems.

Brands and Trademarks

Our main brands are Tecnoglass, ESWindows and Alutions. Our registered trademarks include El Poder de la Calidad, Energia Solar, Tecnoglass, Alutions, Eswindows, Tecnobend, Tecnoair, Tecnosmart, ECOMAX by ESWINDOWS, ESWINDOWS Interiors, ESW Windows and Walls, Solartec by Tecnoglass, Prestige by ESWINDOWS, Eli by ESWINDOWS, Alessia by ESWINDOWS, Elite Line by ESWindows, ULTRAVIEW by Tecnoglass, and MULTIMAX by ESWINDOWS.

Sales, Marketing and Customer Service

Sales and Marketing

Our sales strategy primarily focuses on attracting and retaining customers by consistently providing exceptional customer service, leading product quality, and competitive pricing. Our customers also value our shorter lead times, knowledge of building code requirements and technical expertise, which collectively generate significant customer loyalty. We primarily market our products based on product quality, outstanding service, shorter lead times and on-time delivery.

Our products are marketed using a combination of internal sales representatives, independent sales representatives and directly to distributors. We believe this strategy is highly efficient for our business. Our internal sales representatives receive a portion of their performance-based compensation based on sales and profitability metrics. Additionally, some of our sales and marketing efforts are handled by area sales representatives who work on a commission basis.

We do not rely on significant traditional advertising expenditures to drive net sales. We have established and maintain credibility primarily through the strength of our products, our customer service and quality assurance, the speed at which we deliver finished products and the attractiveness of our pricing. Our advertising expenditures consist primarily of maintaining our subsidiaries' websites.

Customer Service

We believe that our ability to provide customers outstanding service is a strong competitive differentiator. Our customer relationships are established and maintained through the coordinated efforts of our sales and production teams. We employ a highly responsive and efficient team of professionals devoted to addressing customer support with the goal of resolving any issue in a timely manner. In order to promote customer loyalty and employee development, we developed an employee training program with the primary objectives of educating our staff to be aware of client and supplier needs and familiarizing them with our strategic goals in order to improve the competitiveness, productivity and quality of all products offered.

Working Capital Requirements and Debt Facilities

During the year ended December 31, 2022, we generated \$141.9 million of cash from operating activities. The positive cashflow from operations during 2022 is related to record high operating profit margins, enhanced working capital management efforts and lower interest expenses. We anticipate that working capital will continue to be a net benefit to cash flow in the near future, which in addition to our current liquidity position, provides ample flexibility to service our obligations through the next twelve months.

In October 2020, the Company entered into a \$300 million five-year term Senior Secured Credit Facility consisting of a \$250 million delayed draw term loan and a \$50 million committed revolving credit facility which bears interest at a rate of LIBOR, with a 0.75% floor, plus a spread of between 2.50% and 3.50%, based on the Company's net leverage ratio. In December 2020, we used \$23.1 million proceeds of the long-term debt facility to repay several credit facilities. Subsequently, in January 2021 we redeemed the Company's existing \$210 million unsecured senior notes, which had an interest rate of 8.2% and mature in 2022 using proceeds from this new facility and incurred in an extinguishment cost of \$10.9 million including \$8.6 of call premium to exercise the call option.

In November 2021, the Company amended its Senior Secured Credit Facility to (i) increase the borrowing capacity under its committed Line of credit from \$50 million to \$150 million, (ii) reduce its borrowing costs by an approximate 130 basis points, and (iii) extend the initial maturity date by one year to the end of 2026. Borrowings under the credit facility now bear interest at a rate of LIBOR with no floor plus a spread of 1.50%, based on the Company's net leverage ratio, compared to a prior rate of LIBOR with a floor of 0.75% plus a spread of 2.50%, resulting in total annual savings of approximately \$15 million at current levels of outstanding borrowings, since entering into our inaugural U.S. Bank syndicated facility in October 2020. The effective interest rate for this credit facility including deferred issuance costs is 5.93%. In relation to this transaction, the Company accounted for costs related to fees paid of \$1.5 million. This was accounted for as a debt modification and \$1.3 million of fees paid to banks were capitalized as deferred cost of financing and \$150 thousand paid to third parties recorded as an operating expense on the consolidated statements of operations for the year 2021. In March 2022, we voluntarily prepaid \$15 million of capital to this credit facility which has decreased our net leverage ratio and triggered a step down in the applicable interest rate spread to 1.5%. Additionally, on September 30, 2022 we voluntarily prepaid \$10.0 million of the term loan and \$6.7 million under the revolving line of credit which is fully unused as of December 31, 2022.

Customers

Our customers include architects, building owners, general contractors and glazing subcontractors in the commercial construction market. We currently have more than 1,000 customers. Of our 100 largest customers, which represent over 78% of our sales during the twelve months ended December 31, 2022, approximately 98% are located in North America and 2% in Latin America . No single customer accounted for more than 10% of our revenues during the years ended December 31, 2022, and 2021.

Materials and Suppliers

Our primary manufacturing materials include glass, ionoplast, polyvinyl butyral, and aluminum and vinyl extrusions. Although in some instances we have agreements with our suppliers, these agreements are generally terminable by us or the supplier counterparties on limited notice. Typically, all of our materials are readily available from a number of sources, and no supplier delays or shortages are anticipated.

We source raw materials and glass necessary to manufacture our products from a variety of domestic and foreign suppliers. During the year ended December 31, 2022, one supplier accounted for more than 10% of total raw material purchases. During the year ended December 31, 2021, two suppliers individually accounted for more than 10% of total raw material purchases, which in the aggregate represented 26.6% of raw material purchases, including Vidrio Andino (St. Gobain), from whom we purchased 10%, and with whom we created a joint venture in May 2019.

Warranties

We offer product warranties, which we believe are competitive for the markets in which our products are sold. The nature and extent of these warranties depend upon the product. Our standard warranties are generally from five to ten years for architectural glass, curtain wall, laminated and tempered glass, window and door products. Warranties are not priced or sold separately and do not provide the customer with services or coverages in addition to the assurance that the product complies with original agreed-upon specifications. In the event of a claim against a product for which we have received a warranty from the supplier, we transfer the claim back to the supplier.

The cost associated with product warranties was \$2.4 million and \$1.3 million during the years ended December 31, 2022, and 2021, respectively.

Certifications

Among our many designations and certifications, Tecnoglass has earned the Miami-Dade County Notice of Acceptance (“NOA”), one of the most demanding certificates in the industry and a requirement to market hurricane-resistant glass in Florida. Tecnoglass’s products comply with Miami-Dade county’s safety code standards as its laminated anti-hurricane glass resists impact, pressure, water and wind. Tecnoglass is also the only company in Latin America authorized by PPG Industries and Guardian Industries to manufacture floating glass facades.

Our subsidiaries have received a number of other certifications from other national and international standard-setting bodies.

TG certifications include:

- ISO 9001:2008 Certificate of Quality Assurance
- ISO 14001:2004 Certificate of Environmental Management
- ISO 45001:2008. Occupational Health and Safety management System
- Exporter Authorized Economic Operator (AEO).
- NTC 1578:2011: Product seal for safety glass used in construction, approved by ICONTEC.
- NTC 2409:1994: Product seal for extruded aluminum alloy profiles, approved by ICONTEC.
- ANSI Z97.1-2015, CPSC 16 CFR 1201, CAN/CGSB 12.1-2017: Laminated and tempered safety glass, approved by Safety Glazing Certification Council “SGCC”.
- ASTM E2190: Insulating glass meeting all guidelines and requirements for IGCC® / IGMA® certification approved by the Insulating Glass Certification Council and the Insulating Glass Manufacturers Alliance “IGCC”.
- Vitro Certified International Manufacturer Trademark license granted by Vitro for pre-selected projects and to produce certain MSVD coated products at the Solartec plant.
- Good handling of SentryGlas, Butacite and Trosifol products awarded by Kuraray for compliance with all requirements.
- Member of ACOLVISE (Colombia Association of Safety Glass Transformers)
- Member of Aluminium Extruder Xouncil (AEC)

ES certifications include:

- ISO 9001:2008 Certificate of Quality Assurance
- ISO 14001:2004 Certificate of Environmental Management
- ISO 45001:2008. Occupational Health and Safety management System
- Exporter and Importer Authorized Economic Operator (AEO)
- CAP (Certified applicator program) PPG Industries certifies the highest level of coating application.
- Complies with NFRC (National Fenestration Rating Council) Energy Efficient Products
- Complies with NOA (Notice of Acceptance) Fenestration products for all areas of Florida, including hurricane zones.
- Complies with FBC (Florida Building Code) Hurricane protection products
- Complies with Miami-Dade County’s stringent safety code regulations for hurricane-proof Windows
- Member of the American Architectural Manufacturers Association (AAMA)

ESW certifications include:

Complies with minimum security criteria for U.S. Importer of Customs Trade Partnership Against Terrorism (CTPAT) Tier 3 Category.

Competitors

We have local and international competitors that also focus on glass and aluminum transformation, window ensemble and installation and designing in the commercial and residential construction markets. The market in the United States in which we compete is mainly comprised of manufacturers, distributors and installers of glass curtain walls, windows and doors for commercial and residential buildings. Based on our analysis of the IBIS World Report, we estimate that we capture between 1% and 2% of the U.S. consolidated market by revenue (manufacturing and services), which represents an attractive opportunity for further penetration. In Colombia, we believe we are the leading producer of high-end windows, with almost 40 years of experience in the glass and aluminum structure assembly market. The industry has a few well-known players and is mostly atomized and comprised of small competitors.

The key factors on which we and our competitors compete for business include quality, price, reputation, breadth of products and service offerings, and production speed leading to shorter lead times. We face intense competition from both smaller and larger market players who compete against us in our various markets including glass, window and aluminum manufacturing.

The principal methods of competition in the window and door industry are the development of long-term relationships with window and door distributors and dealers, and the retention of customers by delivering a full range of high-quality customized products on demand with short turnaround times while offering competitive pricing. The vertical integration of our operations, our geographic scope, low labor costs and economies of scale have helped our subsidiaries consolidate their leading position in Colombia and bolstered their expansion in the United States and other foreign markets.

Government Regulations

We are subject to extensive and varied federal, state, and local government regulation in the jurisdictions in which we operate, including laws and regulations relating to zoning and density, building design and safety, hurricane and floods, construction, and similar matters. In particular, the market for our impact-resistant windows and doors depends in large part on our ability to satisfy state and local building codes that require protection from wind-borne debris. Additionally, certain of the jurisdictions in which we operate require that installation of doors and windows be approved by competent authorities that grant distribution licenses. We have invested significantly in our quality assurance department in order to maintain rigorous oversight over the production process to ensure the consistent production of high-quality products. We have been certified in compliance with rigorous safety standards, as described in more detail in the section titled “—*Certifications.*”

We are subject to laws and regulations relating to our relationships with our employees, public health and safety and fire codes. Although our business and facilities are subject to federal, state and local environmental regulation, environmental regulation does not have a material impact on our operations.

Research and Development

During the years ended December 31, 2022, 2021, and 2020, we spent approximately \$0.6 million, \$0.7 million, and \$1.0 million, respectively, in research and development. The Company incurs costs related to the development of new products and pays for external tests that need to be performed on our products in order to comply with strict building codes.

Human Capital

As of December 31, 2022, we had a total of 8,770 employees, none of whom is represented by a union. As of December 31, 2021, we had a total of 6,908 employees. Most of our employees are hired through seven temporary staffing companies and are employed under one-year fixed-term employment contracts. We actively encourage and facilitate the development of our employees through rolling training programs, with multiple training sessions held on a weekly basis. These programs increase the skills of our employees and are designed to allow our employees to keep pace with the new technologies being installed at our manufacturing facilities. We are committed to developing our employees and remaining at the forefront of technology in our industry. These investments have also helped us manage workplace injuries, with a Lost Time Injury Frequency Rate of 3.5%, which is considerably lower than the average rate of 9.5% for glass and metal manufacturing companies in Colombia. We have remained union-free since ES's incorporation in 1983. The Company considers itself an equal opportunity employer and has constantly sought to seek the best talent irrespective of gender or ethnicity. While the jobs associated to the core manufacturing operations are predominantly filled by males, the company's sales and administrative staff is comprised of approximately 40% females and 60% males. From an ethnicity perspective, our labor force is diverse but predominantly Latino based on our location.

Company History

We are an exempted company incorporated under the laws of the Cayman Islands. We were incorporated in 2013 in connection with a business combination between Tecnoglass subsidiaries TG and ES, and Andina Acquisition Corporation. TG and ES are corporations formed under the laws of Colombia and founded in 1994 and 1984, respectively, by José M. Daes, our Chief Executive Officer, and Christian T. Daes, our Chief Operating Officer.

Additional Information About the Company

We maintain websites for our subsidiaries, TG, ES, GM&P and ES Metals, which can be found at www.tecnoglass.com, www.energiasolarsa.com, www.gmpglazing.com, and www.es-metals.com, respectively. The corporate filings of Tecnoglass Inc., including our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K, our proxy statements and reports filed by our executive officers and directors under Section 16(a) of the Securities Exchange Act, and any amendments to those filings, are available free of charge on the Investor Relations page at investors.tecnoglass.com, which are uploaded as soon as reasonably practicable after we electronically file (or furnish in certain cases) such material with the Securities and Exchange Commission, and can also be found at the SEC's website at <http://sec.gov>. We do not intend for information contained in any of our websites, including the Investor Relations pages, to be a part of this Form 10-K.

Item 1A. Risk Factors.

You should carefully consider the risks and uncertainties described below, together with the financial and other information contained in this Annual Report on Form 10-K. Our business may also be adversely affected by risks and uncertainties not presently known to us or that we currently believe to be immaterial. If any of the following risks, such other risks or the risks described elsewhere in this Annual Report on Form 10-K, including in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" actually occur, our business, financial condition, operating results, cash flow and prospects could be materially adversely affected. This could cause the trading price of our ordinary shares to decline.

Risks Related to Our Business Operations

We operate in competitive markets, and our business could suffer if we are unable to adequately address potential downward pricing pressures and other factors that may reduce operating margins.

The principal markets that we serve are highly competitive. Competition is based primarily on the precision and range of achievable tolerances, quality, price and the ability to meet delivery schedules dictated by customers. Our competition comes from companies of various sizes, some of which have greater financial and other resources than we do and some of which have more established brand names in the markets that we serve. We currently compete with companies such as Viracon (a subsidiary within the Apogee Enterprises Inc. Group), PGT, Cardinal Glass and Oldcastle Glass among others in the United States and companies such as Vitro, Vitelco and others in the Colombia and Latin America. Any of these competitors may foresee the course of market development more accurately than we will, develop products that are superior to ours, have the ability to produce similar products at a lower cost than us or adapt more quickly than we can to new technologies or evolving customer requirements. Increased competition could force us to lower our prices or to offer additional services at a higher cost to us, which could reduce gross profit and net income. Accordingly, we may not be able to adequately address potential downward pricing pressures and other factors, which may adversely affect our financial condition and results of operations.

Failure to maintain the performance, reliability and quality standards required by our customers could have a materially negative impact on our financial condition and results of operation.

If our products or services have performance, reliability or quality problems, or products are installed with incompatible glazing materials, we may experience additional warranty and service expenses, reduced or canceled orders, diminished pricing power, higher manufacturing or installation costs or delays in the collection of accounts receivable. Additionally, performance, reliability, or quality claims from our customers, with or without merit, could result in costly and time-consuming litigation that could require significant time and attention of management and involve significant monetary damages that could negatively affect our financial results.

The volatility of the cost of raw materials used to produce our products could materially adversely affect our results of operations in the future.

The cost of raw materials included in our products, including aluminum extrusion and polyvinyl butyral, are subject to significant fluctuations derived from changes in price or volume. A variety of factors over which we have no control, including global demand for aluminum, fluctuations in oil prices, speculation in commodities futures and the creation of new laminates or other products based on new technologies, impact the cost of raw materials which we purchase for the manufacture of our products.

We quote our prices of aluminum products based on the price of aluminum in the London Metal Exchange plus a premium, and our suppliers of glass and polyvinyl butyral provide us with price lists that are updated annually, thus reducing the risk of changing prices for orders in the short term. While we may attempt to minimize the risk from severe price fluctuations by entering into aluminum forward contracts to hedge these fluctuations in the purchase price of aluminum extrusion we use in production, substantial, prolonged upward trends in aluminum prices could significantly increase the cost of our aluminum needs and have an adverse impact on our results of operations. If we are not able to pass on significant cost increases to our customers, our results in the future may be negatively affected by a delay between the cost increases and price increases in our products. Accordingly, the price volatility of raw materials could adversely affect our financial condition and results of operations in the future.

We depend on third-party suppliers for our raw materials and any failure of such third-party suppliers in providing raw materials could negatively affect our ability to manufacture our products.

Our ability to offer a wide variety of products to our customers depends on receipt of adequate material supplies from manufacturers and other suppliers. It is possible in the future that our competitors or other suppliers may create products based on new technologies that are not available to us or are more effective than our products at surviving hurricane-force winds and wind-borne debris or that they may have access to products of a similar quality at lower prices. Although in some instances we have agreements with our suppliers, these agreements are generally terminable by us or the supplier counterparties on limited notice. We have a fixed set of maximum price rates, and from those prices we negotiate with the supplier of the material depending on the project. We source raw materials and glass necessary to manufacture our products from a variety of domestic and foreign suppliers. During the year ended December 31, 2022, one supplier accounted for more than 10% of total raw material purchases, at 14% of total raw material purchases. Failures of third-party suppliers to provide raw materials to us in the future could have an adverse impact on our operating results or our ability to manufacture our products.

We rely on third-party transportation, which subjects us to risks and costs that we cannot control, and which risks and costs may materially adversely affect our operations.

We rely on third party trucking companies to transport raw materials to the manufacturing facilities used by each of our businesses and, to a lesser degree, to ship finished products to customers. These transport operations are subject to various hazards and risks, including extreme weather conditions, work stoppages and operating hazards, as well as interstate transportation regulations. In addition, the methods of transportation we utilize may be subject to additional, more stringent and more costly regulations in the future. If we are delayed or unable to ship finished products or unable to obtain raw materials as a result of any such new regulations or public policy changes related to transportation safety, or these transportation companies fail to operate properly, or if there were significant changes in the cost of these services due to new or additional regulations, or otherwise, we may not be able to arrange efficient alternatives and timely means to obtain raw materials or ship goods, which could result in a material adverse effect on our revenues and costs of operations. Transportation costs represent a significant part of our cost structure. If our transportation costs increased substantially, due to prolonged increases in fuel prices or otherwise, we may not be able to control them or pass the increased costs onto customers, and our profitability would be negatively impacted.

We may not realize the anticipated benefit through our joint venture with Saint-Gobain and the planned construction of a new plant as part of the joint venture may not be completed as planned.

On May 3, 2019, we acquired an approximately 25.8% minority interest in Vidrio Andino's float glass plant in the outskirts of Bogota, Colombia in connection with our joint venture agreement with Saint-Gobain. We believe This joint venture has solidified our vertical integration strategy by providing us with an interest in the first stage of our production chain, while securing ample glass supply for our expected production needs. Although our glass supply has run smoothly through 2022, we may be unable to realize the planned synergies and fail to integrate some aspects of the facility's production capacity into our manufacturing process, which may have a negative impact on our financial condition. Additionally, the joint venture agreement includes plans to build a new plant in Galapa, Colombia that will be located approximately 20 miles from our primary manufacturing facility in which we will also have a 25.8% interest. The new plant will be funded with the original cash contribution made by the Company, operating cash flows from the Bogota plant, and debt incurred at the joint venture level that will not consolidate into the Company.

There can be no assurance that the anticipated joint venture cost synergies, increases in capacity or production and optimization of certain manufacturing processes associated with the reduction of raw material waste, and supply chain synergies, including purchasing raw materials at more advantageous prices, will be achieved, or that they might not be significantly and materially less than anticipated, or that the completion of the joint venture with Saint-Gobain will be timely or effectively accomplished. In addition, our ability to realize the anticipated cost synergies and production capacity increases are subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control, such as changes to government regulation governing or otherwise impacting our industry, operating difficulties, client preferences, changes in competition and general economic or industry condition.

Constructing a new manufacturing facility involves risks, including financial, construction and governmental approval risks. If Vidrio Andino's plant fails to produce the anticipated cash flow, if we are unable to allocate the required capital to the new plant, if we are unable to secure the necessary permits, approvals or consents or if we are unable to enter into a contract for the construction of the plant on suitable terms, we will fail to realize the expected benefits of the joint venture.

The success of our business depends, in part, on our ability to execute on our acquisition strategy, to successfully integrate acquisitions and to retain key employees of our acquired businesses and to retain key employees of our acquired businesses .

A portion of our historical growth has occurred through acquisitions and we may enter into additional acquisitions in the future. We may at any time be engaged in discussions or negotiations with respect to possible acquisitions, including transactions that would be significant to us. We regularly make, and we expect to continue to make, acquisition proposals, and we may enter into letters of intent for acquisitions. We cannot predict the timing of any contemplated transactions. To successfully finance such acquisitions, we may need to raise additional equity capital and indebtedness, which could increase our leverage level above our leverage level. We cannot assure you that we will enter into definitive agreements with respect to any contemplated transactions or that transactions contemplated by any definitive agreements will be completed on time or at all. Our growth has placed, and will continue to place, significant demands on our management and operational and financial resources. Acquisitions involve risks that the businesses acquired will not perform as expected and that business judgments concerning the value, strengths and weaknesses of acquired businesses will prove incorrect.

Acquisitions may require integration of acquired companies' sales and marketing, distribution, purchasing, finance and administrative organizations, as well as exposure to different legal and regulatory regimes in jurisdictions in which we have not previously operated. We may not be able to integrate successfully any business we may acquire or have acquired into our existing business, and any acquired businesses may not be profitable or as profitable as we had expected. Our inability to complete the integration of new businesses in a timely and orderly manner could increase costs and lower profits. Factors affecting the successful integration of acquired businesses include, but are not limited to, the following:

- We may become liable for certain liabilities of any acquired business, whether or not known to us. These risks could include, among others, tax liabilities, product liabilities, asbestos liabilities, environmental liabilities, pension liabilities and liabilities for employment practices and they could be significant.
- Substantial attention from our senior management and the management of the acquired business may be required, which could decrease the time that they have to service and attract customers.
- The complete integration of acquired companies depends, to a certain extent, on the full implementation of our financial systems and policies.
- We may actively pursue a number of opportunities simultaneously and we may encounter unforeseen expenses, complications and delays, including difficulties in employing sufficient staff and maintaining operational and management oversight.

We may not be able to realize the expected return on our growth and efficiency capital expenditure plan.

In recent years we have made significant capital expenditures which include:

- Automation of six window assembly production lines, increasing efficiencies, labor and material waste costs with an estimated reduction of on-site damage by 30%;
- Additional aluminum expansion project to increase capacity by approximately 400 tons/month;
- Further automation of additional glass lines, increasing efficiencies on an end-to-end basis reducing lead times, headcount and on-site damage by approximately 40%;
- Upgrade vacuum magnetron sputter coating machinery which will allow to coat glass before tempering;
- Construction of 500,000 square feet warehouse with two numerical punching machines, two metal benders and a complete painting line.
- Automation of two centralized aluminum warehouses for storing, sorting and delivering extrusion matrices and aluminum profiles to our internal production processes that reduce lead times for the assembly of architectural systems and reduce on-site damage to materials

There can be no assurance that the anticipated cost saving initiatives will be achieved, or that they will not be significantly and materially less than anticipated, or that the completion of such cost savings initiatives will be effectively accomplished. In addition, our ability to realize the anticipated cost savings are subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control, such as changes to government regulation governing or otherwise impacting our industry, operating difficulties, client preferences, changes in competition and general economic or industry condition. If we fail to realize the anticipated cost savings it could have a negative impact on our financial position.

Our success depends upon our ability to develop new products and services, integrate acquired products and services and enhance existing products and services through product development initiatives and technological advances. Any failure to make such improvements could harm our future business and prospects.

We have continuing programs designed to develop new products and to enhance and improve our existing products. We are expending resources for the development of new products in all aspects of our business, including products that can reach a broader customer base. Some of these new products must be developed due to changes in legislative, regulatory or industry requirements or in competitive technologies that render certain of our existing products obsolete or less competitive. The successful development of our products and product enhancements are subject to numerous risks, both known and unknown, including unanticipated delays, access to significant capital, budget overruns, technical problems and other difficulties that could result in the abandonment or substantial change in the design, development and commercialization of these new products. The events could have a materially adverse impact on our results of operations.

Given the uncertainties inherent with product development and introduction, including lack of market acceptance, we cannot provide assurance that any of our product development efforts will be successful on a timely basis or within budget, if at all. Failure to develop new products and product enhancements on a timely basis or within budget could harm our business and prospects. In addition, we may not be able to achieve the technological advances necessary for us to remain competitive, which could have a materially negative impact on our financial condition.

The home building industry and the home repair and remodeling sector are regulated, and any increased regulatory restrictions could negatively affect our sales and results of operations.

The home building industry and the home repair and remodeling sector are subject to various local, state, and federal statutes, ordinances, rules and regulations concerning zoning, building design and safety, hurricane and floods, construction, and similar matters, including regulations that impose restrictive zoning and density requirements in order to limit the number of homes that can be built within the boundaries of a particular area. Increased regulatory restrictions could limit demand for new homes and home repair and remodeling products, which could negatively affect our sales and results of operations. We may not be able to satisfy any future regulations, which consequently could have a negative effect on our sales and results of operations.

Changes in building codes could lower the demand for our impact-resistant windows and doors.

The market for our impact-resistant windows and doors depends in large part on our ability to satisfy state and local building codes that require protection from wind-borne debris. If the standards in such building codes are raised, we may not be able to meet such requirements, and demand for our products could decline. Conversely, if the standards in such building codes are lowered or are not enforced in certain areas, demand for impact-resistant products may decrease. If we are unable to satisfy future regulations, including building code standards, it could negatively affect our sales and results of operations. Further, if states and regions that are affected by hurricanes but do not currently have such building codes fail to adopt and enforce hurricane protection building codes, our ability to expand our business in such markets may be limited.

We are subject to labor, and health and safety regulations, and may be exposed to liabilities and potential costs for lack of compliance.

We are subject to labor and health and safety laws and regulations that govern, among other things, the relationship between us and our employees and the health and safety of our employees. If we are found to have violated any labor or health and safety laws, we may be exposed to penalties and sanctions, including the payment of fines. In particular, most of our employees are hired through temporary staffing companies and are employed under one-year fixed-term employment contracts. According to applicable labor law regarding temporary staffing companies, if we exceed the limits for hiring temporary employees and the Colombian Ministry of Labor identifies the existence of illegal outsourcing, sanctions may be imposed along with probable lawsuits by employees claiming the existence of a labor relationship. Our subsidiaries could also be subject to work stoppages or closure of operations.

The above, could result in cancellation or suspension of governmental registrations, authorizations and licenses issued by other authorities, any one of which may result in interruption or discontinuity of business, and could, consequently, materially and adversely affect our business, financial condition or results of operation.

Equipment failures, delays in deliveries and catastrophic loss at our manufacturing facility could lead to production curtailments or shutdowns that prevent us from producing our products.

An interruption in production capabilities at any of our facilities because of equipment failure or other reasons could result in our inability to produce our products, which would reduce our sales and earnings for the affected period. In addition, we generally manufacture our products only after receiving the order from the customer and thus do not hold large inventories. If there is a stoppage in production at our manufacturing facilities, even if only temporarily, or if they experience delays because of events that are beyond our control, delivery times could be severely affected. Any significant delay in deliveries to our customers could lead to increased product returns or cancellations and cause us to lose future sales. Our manufacturing facilities are also subject to the risk of catastrophic loss due to unanticipated events such as fires, explosions, or violent weather conditions. If we experience plant shutdowns or periods of reduced production because of equipment failure, delays in deliveries or catastrophic loss, it could have a material adverse effect on our results of operations or financial condition. Further, we may not have adequate insurance to compensate for all losses that result from any of these events.

Our reliance on a single facility subjects us to concentrated risks.

We currently operate the vast majority of our business from a single production facility in Barranquilla, Colombia. Due to the lack of diversification in our assets and geographic location, an adverse development at or impacting our facility or in local or regional economic or political conditions, could have a significantly greater impact on our results of operations and financial condition than if we maintained more diverse assets and locations. While we implement preventative and proactive maintenance at our facility, it is possible that we could experience prolonged periods of reduced production and increased maintenance and repair costs due to equipment failures. In addition, because of our single facility and location, in certain cases we rely on limited or single suppliers for significant inputs, such as electricity. We are also reliant on the adequacy of the local skilled labor force to support our operations. Supply interruptions to or labor shortages or stoppages at our facility could be caused by any of the aforementioned factors, many of which are beyond our control, and would adversely affect our operations and we would not have any ability to offset this concentrated impact with activities at any alternative facilities or locations.

Customer concentration and related credit, commercial and legal risk may adversely impact our future earnings and cash flows.

Our ten largest third-party customers worldwide collectively accounted for 32% of our total sales revenue for the year ended December 31, 2022, though no single customer accounted for more than 10% of annual revenues. We also do not have any long-term requirements contracts pursuant to which we would be required to fulfill customers on an as-needed basis.

Although the customary terms of our arrangements with customers in Latin America and the Caribbean typically require a significant upfront payment ranging between 30% and 50% of the cost of an order, if a large customer were to experience financial difficulty, or file for bankruptcy or similar protection, or if we were unable to collect amounts due from customers that are currently under bankruptcy or similar protection, it could adversely impact our results of operations, cash flows and asset valuations. Therefore, the risk we face in doing business with these customers may increase. Financial problems experienced by our customers could result in the impairment of our assets, a decrease in our operating cash flows and may also reduce or curtail our customers' future use of our products and services, which may have an adverse effect on our revenues.

Disagreements between the parties can arise as a result of the scope and nature of the relationship and ongoing negotiations. Although we do not have any disputes with any major customers as of the date hereof that are expected to have a material adverse effect on our financial position, results of operations or cash flows, we cannot predict whether such disputes will arise in the future.

Our results may not match our provided guidance or the expectations of securities analysts or investors, which likely would have an adverse effect on the market price of our securities.

Our results may fall below provided guidance and the expectations of securities analysts or investors in future periods. Our results may vary depending on a number of factors, including, but not limited to, fluctuating customer demand, delay or timing of shipments, construction delays or cancellations due to lack of financing for construction projects or market acceptance of new products. Manufacturing or operational difficulties that may arise due to quality control, capacity utilization of our production equipment or staffing requirements may also adversely affect annual net sales and operating results. Moreover, where we participate in fixed-price contracts for installation services, changes in timing of construction projects or difficulties or errors in their execution caused by us or other parties, could result in a failure to achieve expected results. In addition, competition, including new entrants into our markets, the introduction of new products by competitors, adoption of improved technologies by competitors and competitive pressures on prices of products and services, could adversely affect our results. Finally, our results may vary depending on raw material pricing, the potential for disruption of supply and changes in legislation that could have an adverse impact on labor or other costs. Our failure to meet our provided guidance or the expectations of securities analysts or investors would likely adversely affect the market price of our securities.

If new construction levels and repair and remodeling markets decline, such market pressures could negatively affect our results of operations.

The architectural glass industry is subject to the cyclical market pressures of the larger new construction and repair and remodeling markets. In turn, these larger markets may be affected by adverse changes in economic conditions such as demographic trends, employment levels, interest rates, commodity prices, availability of credit and consumer confidence, as well as by changing needs and trends in the markets, such as shifts in customers' preferences and architectural trends. Any future downturn or any other negative market pressures could negatively affect our results of operations in the future, as margins may decrease as a direct result of an overall decrease in demand for our products. Additionally, we may have idle capacity which may have a negative effect on our cost structure.

We may be adversely affected by disruptions to our manufacturing facilities or disruptions to our customer, supplier or employee base.

Any disruption to our facilities resulting from weather-related events, fire, an act of terrorism or any other cause could damage a significant portion of our inventory, affect our distribution of products and materially impair our ability to distribute products to customers. We could incur significantly higher costs and longer lead times associated with distributing our products to customers during the time that it takes for us to reopen or replace a damaged facility. In addition, if there are disruptions to our customer and supplier base or to our employees caused by weather-related events, acts of terrorism, pandemics, or any other cause, our business could be temporarily adversely affected by higher costs for materials, increased shipping and storage costs, increased labor costs, increased absentee rates and scheduling issues. Any interruption in the production or delivery of our supplies could reduce sales of our products and increase costs.

Our business involves complex manufacturing processes that may cause personal injury or property damage, subjecting us to liabilities, possible losses, and other disruptions of our operations in the future, which may not be covered by insurance.

Our business involves complex manufacturing processes. Some of these processes involve high pressures, temperatures, hot metal and other hazards that present certain safety risks to workers employed at our manufacturing facilities. The potential exists for accidents involving death or serious injury. Although our management is highly committed to health and safety, since January 2014, two fatalities have occurred at our operations. The potential liability resulting from any such accident to the extent not covered by insurance, could result in unexpected cash expenditures, thereby reducing the cash available to operate our business. Such an accident could disrupt operations at any of our facilities, which could adversely affect our ability to deliver products to our customers on a timely basis and to retain our current business.

Operating hazards inherent in our business, some of which may be outside of our control, can cause personal injury and loss of life, damage to or destruction of property, plant and equipment and environmental damage. We maintain insurance coverage in amounts and against the risks we believe are consistent with industry practice, but this insurance may not be adequate or available to cover all losses or liabilities we may incur in our operations. Our insurance policies are subject to varying levels of deductibles. Losses up to our deductible amounts accrue based upon our estimates of the ultimate liability for claims incurred and an estimate of claims incurred but not reported. However, liabilities subject to insurance are difficult to estimate due to unknown factors, including the severity of an injury, the determination of our liability in proportion to other parties, the number of incidents not reported and the effectiveness of our safety programs. If we were to experience insurance claims or costs above our estimates, we might also be required to use working capital to satisfy these claims.

The nature of our business exposes each of our subsidiaries to product liability and warranty claims that, if adversely determined, could negatively affect our financial condition and results of operations and the confidence of customers in our products.

Our subsidiaries are, from time to time, involved in product liability and product warranty claims relating to the products they manufacture and distribute that, if adversely determined, could adversely affect our financial condition, results of operations and cash flows. In addition, they may be exposed to potential claims arising from the conduct of homebuilders and home remodelers and their sub-contractors. We may not be able to maintain insurance on acceptable terms or insurance may not provide adequate protection against potential liabilities in the future. Product liability claims can be expensive to defend and can divert the attention of management and other personnel for significant periods, regardless of the ultimate outcome. Claims of this nature could also have a negative impact on customer confidence in our products and us.

We are subject to potential exposure to environmental liabilities and are subject to environmental regulation and any such liabilities or regulation may negatively affect our costs and results of operations in the future.

Our subsidiaries are subject to various national, state and local environmental laws, ordinances and regulations that are frequently changing and becoming more stringent. Although we believe that our facilities are materially in compliance with such laws, ordinances and regulations, we cannot be certain that we will, at all times, be able to maintain compliance. Furthermore, as owners of real property, our subsidiaries can be held liable for the investigation or remediation of contamination on such properties, in some circumstances, without regard to whether we knew of or were responsible for such contamination. Remediation may be required in the future because of spills or releases of petroleum products or hazardous substances, the discovery of unknown environmental conditions, or more stringent standards regarding existing residual contamination. Environmental regulatory requirements may become more burdensome, increase our general and administrative costs, the availability of construction materials, raw materials and energy, and increase the risk that our subsidiaries incur fines or penalties or be held liable for violations of such regulatory requirements. New regulations regarding climate change may also increase our expenses and eventually reduce our sales.

Weather can materially affect our business and we are subject to seasonality.

Seasonal changes and other weather-related conditions can adversely affect our business and operations through a decline in both the use and production of our products and demand for our services. Adverse weather conditions, such as extended rainy and cold weather in the spring and fall, can reduce demand for our products and reduce sales or render our distribution operations less efficient. Major weather events such as hurricanes, tornadoes, tropical storms and heavy snows with quick rainy melts could adversely affect sales in the near term.

Construction materials production and shipment levels follow activity in the construction industry, which typically occurs in the spring, summer and fall. Warmer and drier weather during the second and third quarters typically result in higher activity and revenue levels during those quarters. The first quarter typically has lower levels of activity partially due to inclement weather conditions. The activity level during the second quarter varies greatly with variations in temperature and precipitation.

Our results of operations could be significantly affected by foreign currency fluctuations and currency regulations.

We are subject to risks relating to fluctuations in currency exchange rates that may affect our sales, cost of sales, operating margins and cash flows. During the year ended December 31, 2022, approximately 2% of our revenues and 37% of our expenses were in Colombian pesos. The remainder of our expenses and revenues were denominated, priced and realized in U.S. Dollars. In the future, and especially as we further expand our sales in other markets, our customers may increasingly make payments in non-U.S. currencies. In addition, currency devaluation can result in a loss to us if we hold monetary assets in that currency. Hedging foreign currencies can be difficult and costly, especially if the currency is not actively traded. We cannot predict the effect of future exchange rate fluctuations on our operating results.

In addition, we are subject to risks relating to governmental regulation of foreign currency, which may limit our ability to:

- transfer funds from or convert currencies in certain countries;
- repatriate foreign currency received in excess of local currency requirements; and
- repatriate funds held by foreign subsidiaries to the United States at favorable tax rates.

Furthermore, the Colombian government and the Colombian Central Bank intervene in the country's economy and occasionally make significant changes in monetary, fiscal and regulatory policy, which may include the following measures:

- controls on capital flows;
- international investments and exchange regime.

For a more detailed description of foreign exchange regulations in Colombia, see "Risk factors – Risks Related to Colombia and Other Countries Where We Operate – The Colombian government and the Central Bank exercise significant influence on the Colombian economy".

As we continue to increase our operations in foreign countries, there is an increased risk that foreign currency controls may create difficulty in repatriating profits from foreign countries in the form of taxes or other restrictions, which could restrict our cash flow.

We are dependent on certain key personnel, the loss of whom could materially affect our financial performance and prospects in the future.

Our continued success depends largely upon the continued services of our senior management and certain key employees. Each member of our senior management teams has substantial experience and expertise in his or her industry and has made significant contributions to our growth and success. However, we do not have employment agreements in place for any of our executive officers. Accordingly, we face the risk that members of our senior management may not continue in their current positions and the loss of the services of any of these individuals could cause us to lose customers and reduce our net sales, lead to employee morale problems and the loss of other key employees or cause disruptions to production. In addition, we may be unable to find qualified individuals to replace any senior executive officers who leave our employ or that of our subsidiaries.

Members of our management team have been, may be, or may become, involved in litigation, investigations or other proceedings. The defense or prosecution of these matters could be time-consuming and could divert our management's attention, and may have an adverse effect on us.

During the course of their careers, our officers and directors have been, may be or may in the future become involved in litigation, investigations or other proceedings. Our officers and directors also may become involved in litigation, investigations or other proceedings involving claims or allegations related to or as a result of their personal conduct, either in their capacity as a corporate officer or director or otherwise, and may be personally named in such actions and potentially subject to personal liability. Any such liability may or may not be covered by insurance and/or indemnification, depending on the facts and circumstances. The defense or prosecution of these matters could be time-consuming. Any litigation, investigations or other proceedings and the potential outcomes of such actions may divert the attention and resources of our officers and directors away from our operations and may negatively affect our reputation, which may adversely impact our operations and profitability.

We have entered into significant transactions with affiliates or other related parties, which may result in conflicts of interest.

We have entered into transactions with affiliates or other related parties in the past and may do so again in the future. While we believe such transactions have been and will continue to be negotiated on an arm's length basis, giving us a competitive advantage with vertical integration, there can be no assurance that such transactions could not give rise to conflicts of interest that could adversely affect our financial condition and results of operations.

The interests of our controlling shareholders could differ from the interests of our other shareholders.

Energy Holding Corporation exercises significant influence over us as a result of its majority shareholder position and voting rights. As of December 31, 2022, Energy Holding Corporation beneficially owned approximately 55.4% of our outstanding ordinary shares. Energy Holding Corporation, in turn, is controlled by members of the Daes family, who together own 100% of the shares of Energy Holding Corporation. See "Principal Securityholders". Accordingly, our controlling shareholders would have considerable influence regarding the outcome of any transaction that requires shareholder approval. In addition, if we are unable to obtain requisite approvals from Energy Holding Corporation, we may be prevented from executing critical elements of our business strategy.

We conduct all of our operations through our subsidiaries, and will rely on payments from our subsidiaries to meet all of our obligations and may fail to meet our obligations if our subsidiaries are unable to make payments to us.

We are a holding company and derive substantially all of our operating income from our subsidiaries. All of our assets are held by our subsidiaries, and we rely on the earnings and cash flows of our subsidiaries to meet our debt service obligations or dividend payments. The ability of our subsidiaries to make payments to us will depend on their respective operating results and may be restricted by, among other things, the laws of their jurisdiction of organization including Colombian foreign exchange regulations (which may limit the amount of funds available for distributions to us), the terms of existing and future indebtedness and other agreements of our subsidiaries, including their credit facilities, and the covenants of any future outstanding indebtedness we or our subsidiaries incur. See “Risk Factors – Risks Related to Colombia and Other Countries Where We Operate – The Colombian government and the Central Bank exercise significant influence on the Colombian economy.” If our subsidiaries are unable to declare dividends, our ability to meet debt service or dividend payments may be impacted. The ability of our subsidiaries in Colombia to declare dividends up to the total amount of their capital is not restricted by current laws, covenants in debt agreements or other agreements but could be restricted pursuant to applicable law in the future or if our Colombian subsidiaries undergo a transformation to other types of corporate entities.

Increasing interest rates could materially adversely affect our ability to generate positive cashflows and secure financing required to carry out our strategic plans.

Historically, portions of our debt have been indexed to variable interest rates. A variety of factors impact prevailing interest rates of which we have no control over. A rise in interest rates could negatively impact the cost of financing for a portion of our debt with variable interest rates which could negatively impact our cash flow generation. Furthermore, a rise in interest rates could limit our ability to obtain financing required to support our growth through our continuing programs designed to develop new products, the expand of the installed capacity of our manufacturing facilities and execute our acquisition strategy. While we may mitigate the risk derived from interest rate fluctuations by entering into derivative contracts or by obtaining fixed rate financing, general increases in interest rates would still have an impact on the cost of financing and our ability to obtain appropriate funding.

Furthermore, the architectural glass industry is directly impacted by general construction activity trends. In turn, these markets may be affected by adverse changes in economic conditions such as interest rates, and availability of credit. Any future downturn or any other negative market pressures could negatively affect our results of operations in the future, as margins may decrease as a direct result of an overall decrease in demand for our products.

Our indebtedness could adversely affect our financial health and prevent us from fulfilling our obligations.

As of December 31, 2022, we and our subsidiaries on a consolidated basis had \$173.2 million principal amount of debt outstanding. Our indebtedness could have negative consequences to our financial health. For example, it could:

- make it more difficult for us to satisfy our obligations with respect to the notes of our other debt;
- increase our vulnerability to general adverse economic and industry conditions or a downturn in our business;
- require us to dedicate a portion of our cash flow from operations to debt service, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- place us at a competitive disadvantage compared to our competitors that are not as highly leveraged;
- limit, along with the financial and other restrictive covenants in our indebtedness, among other things, our ability to borrow additional funds; and
- result in an event of default if we fail to satisfy our obligations under the notes or our other debt or fail to comply with the financial and other restrictive covenants contained in the indenture or our other debt instruments, which event of default could result in all of our debt becoming immediately due and payable and could permit certain of our lenders to foreclose on our assets securing such debt.

Any of the above listed factors could have a material adverse effect on our business, financial condition and results of operations. Further, the terms of our existing debt agreements do not, and any future debt may not, fully prohibit us from incurring additional debt. If new debt is added to our current debt levels, the related risks that we now face could intensify.

Risks Related to Colombia and Other Countries Where We Operate

Our operations are located in Colombia, which may make it more difficult for U.S. investors to understand and predict how changing market and economic conditions will affect our financial results.

Our operations are located in Colombia and, consequently, are subject to the economic, political and tax conditions prevalent in that country. The economic conditions in Colombia are subject to different growth expectations, market weaknesses and business practices than economic conditions in the U.S. market. We may not be able to predict how changing market conditions in Colombia will affect our financial results.

During 2021, Colombia's long-term foreign currency sovereign credit ratings were lowered to "Baa2" by Moody's, and "BB+" by S&P and Fitch, three of the main rating agencies worldwide, as Colombia's fiscal adjustments seemed to be more protracted and gradual than previously expected. During 2022, the same risk rating agencies ratified Colombia's ratings to "Baa2" "and BB+", reflecting their expectation of fiscal deficit recovery and stable net debt over total GDP, driven by economic growth. Colombia's real GDP increased approximately 7.5% in 2022. During 2022, global inflationary pressures and lower interest rates, led Colombia to reach an annual inflation rate of 13.1% in 2022. As a result, Colombian Central Bank ("Banco de la República") raised its monetary policy rate from 3% in December 2021, to 12% as of December 31, 2022. In addition, minimum wage for 2023 was agreed to increase 16%.

Colombia's economy, just like most of Latin-American countries, continues suffering from the effects of high volatility in commodity prices, mainly oil, reflected in its elevated level of external debt. Even though the country has taken measures to stabilize the economy, it is uncertain how will these measures be perceived and if the intended goal of increasing investor's confidence will be achieved.

Economic and political conditions in Colombia may have an adverse effect on our financial condition and results of operations.

Our financial condition and results of operations depend significantly on macroeconomic and political conditions prevailing in Colombia. Decreases in the growth rate, periods of negative growth, increases in inflation, changes in law, regulation, policy, or future judicial rulings and interpretations of policies involving exchange controls and other matters such as (but not limited to) currency depreciation, foreign exchange regulations, inflation, interest rates, taxation, employment and labor laws, banking laws and regulations and other political or economic developments in or affecting Colombia may affect the overall business environment and may, in turn, adversely impact our financial condition and results of operations in the future. Colombia's fiscal deficit and growing public debt could adversely affect the Colombian economy. See "Disclosure Regarding Foreign Exchange Rates in Colombia" and "Risk Factors – Risks Related to Colombia and Other Countries Where We Operate – The Colombian government and the Central Bank exercise significant influence on the Colombian economy".

The Colombian government frequently intervenes in Colombia's economy and from time to time makes significant changes in monetary, fiscal and regulatory policy. Our business and results of operations or financial condition may be adversely affected by changes in government or fiscal policies, and other political, diplomatic, social, and economic developments that may affect Colombia. We cannot predict what policies the Colombian government will adopt and whether those policies would have a negative impact on the Colombian economy or on our business and financial performance in the future. We cannot assure you as to whether current stability in the Colombian economy will be sustained. If the conditions of the Colombian economy were to deteriorate, our financial conditions and results of operations would be adversely affected.

The Colombian government has historically exercised substantial influence on the local economy, and governmental policies are likely to continue to have an important effect on companies operating in Colombia like our Colombian subsidiaries, market conditions and the prices of the securities of local issuers. The President of Colombia has considerable power to determine governmental policies and actions relating to the economy and may adopt policies that may negatively affect us. We cannot predict which policies will be adopted by the new government and whether those policies would have a negative impact on the Colombian economy in which we operate or our business and financial performance.

In 2022, Congress and Presidential Elections took place in Colombia. We cannot assure you that measures adopted by the Colombian government under its new regime continue to be consistent with former policy and will not affect the country's overall economic outlook and performance. The new leadership under the elected government may have negative effects on macroeconomic stability and therefore on the construction industry as a whole and finally, on the company's operations and future prospects. Although we don't estimate a significant effect in the short term based on current backlog and ongoing activity, it is uncertain as to how a new regime could affect our business in the longer term. In addition, we cannot predict the effects that such policies will have on the Colombian economy. Furthermore, we cannot assure you that the Colombian peso will not depreciate relative to other currencies in the future, which could have a materially adverse effect on our financial condition.

The Colombian Government and the Central Bank exercise significant influence on the Colombian economy.

Although the Colombian government has not imposed foreign exchange restrictions since 1990, Colombia's foreign currency markets have historically been extremely regulated. Colombian law permits the Central Bank to impose foreign exchange controls to regulate the remittance of dividends and/or foreign investments in the event that the foreign currency reserves of the Central Bank fall below a level equal to the value of three months of imports of goods and services into Colombia. An intervention that precludes our Colombian subsidiaries from possessing, utilizing or remitting U.S. Dollars would impair our financial condition and results of operations, and would impair the Colombian subsidiary's ability to convert any dividend payments to U.S. Dollars.

The Colombian government and the Central Bank may also seek to implement new policies aimed at controlling further fluctuation of the Colombian peso against the U.S. Dollar and fostering domestic price stability. The Central Bank may impose certain mandatory deposit requirements in connection with foreign-currency denominated loans obtained by Colombian residents, including TG and ES. We cannot predict or control future actions by the Central Bank in respect of such deposit requirements, which may involve the establishment of a different mandatory deposit percentage. The U.S. Dollar/Colombian peso exchange rate has shown some instability in recent years. Please see "Disclosure Regarding Foreign Exchange Controls and Exchange Rates in Colombia" for actions the Central Bank could take to intervene in the exchange market.

The Colombian Government has considerable power to shape the Colombian economy and, consequently, affect the operations and financial performance of businesses. The Colombian Government may seek to implement new policies aimed at controlling further fluctuation of the Colombian peso against the U.S. Dollar and fostering domestic price stability. The president of Colombia has considerable power to determine governmental policies and actions relating to the economy and may adopt policies that are inconsistent with those of the prior government or that negatively affect us.

Factors such as Colombia's growing public debt and fluctuating exchange rates could adversely affect the Colombian economy.

Colombia's fiscal deficit and growing public debt could adversely affect the Colombian economy. Since the start of the Covid-19 pandemic, increased government expenses and lower tax collection raised the fiscal deficit up to 7.8% of GDP in 2020. In 2021, economic recovery along with higher tax collection stabilized the fiscal deficit to 7.5% of GDP. According to the Finance Ministry of Colombia, fiscal deficit as a percentage of GDP during 2022 is expected to close at 5.5%, based on data as of November 2022, as a result of the consolidation of economic recovery, higher tax collection, and lower expenses associated to COVID-19 pandemic.

In recent years, the Colombian currency had shown some short-term volatility vis-à-vis the U.S. Dollar. The Colombian Peso depreciated 21% and 16% against U.S. Dollar in 2022 and 2021, respectively. Any international conflicts or related events have the potential to create an exchange mismatch, given the vulnerability and dependence of the Colombian economy on external financing and its vulnerability to any disruption in its external capital flows and its trade balance.

We cannot assure you that any measures taken by the Colombian government and the Central Bank would be sufficient to control any resulting fiscal or exchange imbalances. Any further disruption in Colombia's fiscal and trade balance may therefore cause Colombia's economy to deteriorate and adversely affect our business, financial condition and results of operations.

Economic instability in Colombia could negatively affect our ability to sell our products.

A significant decline in economic growth of any of Colombia's major trading partners - in particular, the United States, China, and Mexico - could have a material adverse effect on each country's balance of trade and economic growth. In addition, a "contagion" effect, where an entire region or class of investments becomes less attractive to, or subject to outflows of funds by, international investors could negatively affect the Colombian economy.

The 2020 global economic crisis, resulting from the outbreak of the COVID-19 pandemic which negatively affected many economic sectors and countries around the world, had negative effects on the Colombian economy. In addition, several supply chain shocks originated during the pandemic that might further strain and adversely affect the global economy. In 2021, Colombia began to recover from the Covid-19 pandemic. Colombian real GDP increased approximately 9.5% in 2021 as economic activity returned to pre-pandemic levels due to the commercial reactivation of every sector and the advance of the vaccine plan, where 78% of Colombian population is vaccinated with at least 1 dose. As of December 31, 2022, Tecnoglass's U.S and Latin American customers and suppliers are fully operational, and virtually all of the Company's employees have been vaccinated against COVID-19 and are working on site.

Even though exports from Colombia, principally petroleum and petroleum products, and gold, have grown in recent years, fluctuations in commodity prices pose a significant challenge to their contribution to the country's balance of payments and fiscal revenues. Unemployment continues to be high in Colombia compared to other economies in Latin America. Furthermore, recent political and economic actions in the Latin American region, including actions taken by the Argentine and Venezuelan governments, may negatively affect international investor perception of the region. We cannot assure you that growth achieved over the past decade by the Colombian economy will continue in future periods. The long-term effects of the global economic and financial crisis on the international financial system remain uncertain. In addition, the effect on consumer confidence of any actual or perceived deterioration of household incomes in the Colombian economy may have a material adverse effect on our results of operations and financial condition.

We are dependent on sales to customers outside Colombia and any failure to make these sales may adversely affect our operating results in the future.

In the year ended December 31, 2022, 98% of our sales were to customers outside Colombia, including to the United States and Panama, and we expect sales into the United States and other foreign markets to continue to represent a significant portion of our net sales. Foreign sales and operations are subject to changes in local government regulations and policies, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, exchange controls and repatriation of earnings. An increase in tariffs on products shipped to countries like the United States, or changes in the relative values of currencies occur from time to time and could affect our operating results. This risk and the other risks inherent in foreign sales and operations could adversely affect our operating results in the future.

We are subject to regional and national economic conditions in the United States.

The economy in Florida and throughout the United States could negatively impact demand for our products as it has in the past, and macroeconomic forces such as employment rates and the availability of credit could have an adverse effect on our sales and results of operations. Our U.S. business is concentrated geographically in Florida, which optimizes manufacturing efficiencies and logistics, but further concentrates our business, and another prolonged decline in the economy of the state of Florida or of nearby coastal regions, a change in state and local building code requirements for hurricane protection, or any other adverse condition in the state or certain coastal regions, could cause a decline in the demand for our products, which could have an adverse impact on our sales and results of operations. Our strategy of continued geographic diversification seeks to reduce our exposure to such region-specific risks.

Global trade tensions and political conditions in the United States, as well as the U.S. government's approach to NAFTA and/or other trade agreements, treaties or policies, may adversely affect our results of operations and financial condition.

Our operations are located in Colombia and may be, to varying degrees, affected by economic and market conditions in other countries. Trade barriers being erected by major economies may limit our ability to sell products in other markets and execute our growth strategies. Economic conditions in Colombia are correlated with economic conditions in the United States. As a result, any downturn in economic activity could have a negative impact on our business in the United States, which as of December 31, 2022, accounted for 96% of our net operating revenues.

The termination or re-negotiation of free trade agreements or other related events could also indirectly have an adverse effect on the Colombian economy. Although economic conditions in other emerging market countries and in the United States may differ significantly from economic conditions in Colombia, investors' reactions to developments in other countries may have an adverse effect on the market value of securities of Colombian companies. There can be no assurance that future developments in other emerging market countries and in the United States, over which we have no control, will not have a material adverse effect on our liquidity.

The armed conflict between Russia and Ukraine, including sanctions and tensions between the United States along with several other countries and Russia, may adversely affect the results of our operations.

The Russian invasion of Ukraine starting in February 2022 has escalated global tensions between the United States and NATO countries against Russia. Colombia has also condemned Russia's invasion of Ukraine. Multiple economic sanctions against Russia are being imposed by many countries worldwide which has impacted the global economy as many commercial, industrial and financial businesses are closing operations in Russia. Trade restrictions imposed on Russia have led to increasing prices of oil, fluctuation in commodities markets and destabilizing many foreign currency exchange rates.

Further escalation of conflict can lead to severe constraints on global supply chains such as logistics obstructions, raw material price increases and shortages, and higher energy costs. Disruptions in global supply chains can adversely affect our ability to manufacture and deliver product to our customers. Additionally, fluctuating foreign currency exchange rates could impact the profitability of our foreign subsidiaries which are at the core of our business.

Colombia has experienced and continues to experience internal security issues that have had or could have a negative effect on the Colombian economy and our financial condition.

Colombia has experienced and continues to experience internal security issues, primarily due to the activities of guerrilla groups, such as dissidents from the former Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia*, or “FARC”) and the National Liberation Army (*Ejercito de Liberación Nacional*, or “ELN,”) paramilitary groups and drug cartels. In remote regions of the country with minimal governmental presence, these groups have exerted influence over the local population and funded their activities by protecting, and rendering services to, drug traffickers. Even though the Colombian government’s policies have reduced guerilla presence and criminal activity, particularly in the form of terrorist attacks, homicides, kidnappings and extortion, such activity persists in Colombia, and possible escalation of such activity and the effects associated with them have had and may have in the future a negative effect on the Colombian economy and on us, including on our customers, employees, results of operations and financial condition. The Colombian government commenced peace talks with the FARC in August 2012, and peace negotiations with the ELN began in November 2016. The Colombian government and the FARC signed a peace deal on September 26, 2016, which was amended after voters rejected it in the referendum held on October 2, 2016. The new agreement was signed on November 24, 2016, and was ratified by the Colombian Congress on November 30, 2016 and is being implemented. Pursuant to the peace agreements negotiated between the FARC and the Colombian government in 2016, the FARC occupies five seats in the Colombian Senate and five seats in the Colombian House of Representatives. The new deal clarifies protection to private property, is expected to increase the government’s presence in rural areas and bans former rebels from running for office in certain newly created congressional districts in post-conflict zones. As a result, during the transition process, Colombia may experience an increase in internal security issues, drug-related crime and guerilla and paramilitary activities, which may have a negative impact on the Colombian economy. Our business or financial condition could be adversely affected by rapidly changing economic or social conditions, including the Colombian government’s response to implementation of the agreement with FARC and ongoing peace negotiations, if any, which may result in legislation that increases the tax burden of Colombian companies.

Despite efforts by the Colombian government, drug-related crime, guerrilla paramilitary activity and criminal bands continue to exist in Colombia, and allegations have surfaced regarding members of the Colombian congress and other government officials having ties to guerilla and paramilitary groups. Although the Colombian government and ELN have been in talks since February 2017 to end a five-decade war, the Colombian government has suspended the negotiations after a series of rebel attacks. This situation could result in escalated violence by the ELN and may have a negative impact on the credibility of the Colombian government which could in turn have a negative impact on the Colombian economy.

Tensions with neighboring countries, including Venezuela and other Latin American countries, may affect the Colombian economy and, consequently, our results of operations and financial condition in the future.

Diplomatic relations with Venezuela and neighboring countries have from time to time been tense and have been affected by events surrounding the Colombian armed forces, particularly on Colombia's borders with Venezuela. Political tensions in Venezuela rose in January 2019 as several countries, including Colombia, did not recognize the legitimacy of Nicolás Maduro as Venezuelan head of state. However, as of December 31, 2022, Colombia's new government is aiming to reestablish political and commercial relations with Venezuela. Moreover, in November 2012, the International Court of Justice placed a sizeable area of the Caribbean Sea within Nicaragua's exclusive economic zone. To this date, Colombia continues to deem this area as part of its own exclusive economic zone. Any future deterioration in relations with Venezuela and Nicaragua may result in the closing of borders, risk of financial condition.

Government policies and actions and judicial decisions in Colombia could significantly affect the local economy and, as a result, our results of operations and financial condition in the future.

Our results of operations and financial condition may be adversely affected by changes in Colombian governmental policies and actions and judicial decisions involving a broad range of matters, including interest rates, exchange rates, exchange controls, inflation rates, taxation, banking and pension fund regulations and other political or economic developments affecting Colombia. The Colombian government has historically exercised substantial influence over the economy, and its policies are likely to continue to have a significant effect on Colombian companies, including our subsidiaries. The President of Colombia has considerable power to determine governmental policies and actions relating to the economy and may adopt policies that negatively affect our subsidiaries. Future governmental policies and actions, or judicial decisions, could adversely affect our results of operations or financial condition.

We are subject to money laundering and terrorism financing risks.

Third parties may use us as a conduit for money laundering or terrorism financing. If we were to be associated with money laundering (including illegal cash operations) or terrorism financing, our reputation could suffer, or we could be subject to legal enforcement (including being added to “blacklists” that would prohibit certain parties from engaging in transactions with us). Our Colombian subsidiaries could also be sanctioned pursuant to criminal anti-money laundering rules in Colombia.

We have adopted a Code of Conduct, Compliance Manual which includes policies and procedures and help surveil and control our activities and a hotline to receive anonymous reports. However, such measures, procedures and compliance may not be completely effective in preventing third parties from using us as a conduit for money laundering or terrorism financing without our knowledge, which could have a material adverse effect on our business, financial condition and results of operations.

Changes in Colombia’s customs, import and export laws and foreign policy, may have an adverse effect on our financial condition and results of operations.

Our business depends significantly on Colombia’s customs and foreign exchange laws and regulations, including import and export laws, as well as on fiscal and foreign policies. In the past we have benefited from, and now currently benefit from, certain customs and tax benefits granted by Colombian laws, such as free trade zones and Plan Vallejo which incentivizes the import of machinery and equipment by providing tax breaks, as well as from Colombian foreign policy, such as free trade agreements with countries like the United States. As a result, our business and results of operations or financial condition may be adversely affected by changes in government or fiscal policies, foreign policy or customs and foreign exchange laws and regulations. We cannot predict what policies the Colombian government will adopt and whether those policies would have a negative impact on the Colombian economy or on our business and financial performance in the future.

It may be difficult or impossible to enforce judgments of courts of the United States and other jurisdictions against our Colombian subsidiaries or any of their directors, officers and controlling persons.

Most of our assets are located in Colombia. As such, it may be difficult or impossible for you to effect service of process on, or to enforce judgments of United States courts against our Colombian subsidiaries and/or against their directors and officers based on the civil liability provisions of the U.S. federal securities laws.

Colombian courts will enforce a U.S. judgment predicated on the U.S. securities laws through a procedural system known under Colombian law as *exequatur*. Colombian courts will enforce a foreign judgment, without reconsideration of the merits, only if the judgment satisfies the requirements set out in Articles 605 through 607 of Law 1564 of 2012, or the Colombian General Code of Procedure (*Código General del Proceso*), which provides that the foreign judgment will be enforced if certain conditions are met.

New or higher taxes resulting from changes in tax regulations or the interpretation thereof in Colombia could adversely affect our results of operations and financial condition in the future.

New tax laws and regulations, and uncertainties with respect to future tax policies pose risks to us. In recent years, the Colombian Congress approved different tax reforms imposing additional taxes and enacted modifications to existing taxes related to financial transactions, dividends, income, value added tax (VAT), and taxes on net worth.

On September 14, 2021, the Colombian Government enacted Law 2155 (the Social Investment Act), which increases the corporate income tax to 35% for fiscal year 2022 and thereafter, from the current rate of 31% for 2021 that would have decreased to 30% for 2022 under the prior tax regulation. On December 13, 2022, a tax reform was enacted by means of Law 2277, which maintained corporate income tax rate at 35%, and increased income taxes to Free Trade Zones with single enterprise users and non-exporters, from 20% to 35%.

Changes in tax-related laws and regulations, and interpretations thereof, can create additional tax burdens on us and our businesses by increasing tax rates and fees, creating new taxes, limiting tax deductions, and/or eliminating tax-based incentives and non-taxed income. In addition, tax authorities and competent courts may interpret tax regulations differently than us, which could result in tax litigation and associated costs and penalties in part due to the novelty and complexity of new regulation.

We are subject to various U.S. export controls and trade and economic sanctions laws and regulations that could impair our ability to compete in international markets and subject us to liability if we are not in full compliance with applicable laws.

Our business activities are subject to various U.S. export controls and trade and economic sanctions laws and regulations, including, without limitation, the U.S. Commerce Department's Export Administration Regulations and the U.S. Treasury Department's Office of Foreign Assets Control's ("OFAC") trade and economic sanctions programs (collectively, "Trade Controls"). Such Trade Controls may prohibit or restrict our ability to, directly or indirectly, conduct activities or dealings in or with certain countries that are the subject of comprehensive embargoes (presently, Cuba, Iran, North Korea, Syria, and the Crimea region of Ukraine (collectively, "Sanctioned Countries")), as well as with individuals or entities that are the target of Trade Controls-related prohibitions and restrictions (collectively, "Sanctioned Parties").

Although we have implemented compliance measures designed to prevent transactions with Sanctioned Countries and Sanctioned Parties, our failure to successfully comply with applicable Trade Controls may expose us to negative legal and business consequences, including civil or criminal penalties, government investigations, and reputational harm.

Natural disasters in Colombia could disrupt our business and affect our results of operations and financial condition in the future.

Our operations are exposed to natural disasters in Colombia, such as earthquakes, volcanic eruptions, tornadoes, tropical storms and hurricanes. Heavy rains in Colombia, attributable in part to the La Niña weather pattern, have resulted in severe flooding and mudslides. La Niña is a recurring weather phenomenon, and it may contribute to flooding, mudslides or other natural disasters on an equal or greater scale in the future. In the event of a natural disaster, our disaster recovery plans may prove to be ineffective, which could have a material adverse effect on its ability to conduct our businesses. In addition, if a significant number of our employees and senior managers were unavailable because of a natural disaster, our ability to conduct our businesses could be compromised. Natural disasters or similar events could also result in substantial volatility in our results of operations for any fiscal quarter or year.

Risks Related to Us and Our Securities

Because we are incorporated under the laws of the Cayman Islands, you may face difficulties in protecting your interests, and your ability to protect your rights through the U.S. Federal courts may be limited.

We are a company incorporated under the laws of the Cayman Islands, and substantially all of our assets are located outside the United States. In addition, a majority of our directors and officers are nationals or residents of jurisdictions other than the United States and all or substantial portions of their assets are located outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon our directors or executive officers, or enforce judgments obtained in the United States courts against our directors or officers.

Our corporate affairs are governed by our third amended and restated memorandum and articles of association, the Companies Law (2018 Revision) of the Cayman Islands (as the same may be supplemented or amended from time to time) and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, actions by minority shareholders and the fiduciary responsibilities of our directors to us under Cayman Islands law are largely governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from English common law, the decisions of whose courts are of persuasive authority, but are not binding on a court in the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under Cayman Islands law are different from what they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a different body of securities laws as compared to the United States, and certain states, such as Delaware, may have more fully developed and judicially interpreted bodies of corporate law. In addition, Cayman Islands companies may not have standing to initiate a shareholder's derivative action in a Federal court of the United States.

We have been advised by our Cayman Islands legal counsel, Maples and Calder, that the courts of the Cayman Islands are unlikely (i) to recognize or enforce against us judgments of courts of the United States predicated upon the civil liability provisions of the securities laws of the United States or any State; and (ii) in original actions brought in the Cayman Islands, to impose liabilities against us predicated upon the civil liability provisions of the securities laws of the United States or any State, so far as the liabilities imposed by those provisions are penal in nature. In those circumstances, although there is no statutory enforcement in the Cayman Islands of judgments obtained in the United States, the courts of the Cayman Islands will recognize and enforce a foreign money judgment of a foreign court of competent jurisdiction without retrial on the merits based on the principle that a judgment of a competent foreign court imposes upon the judgment debtor an obligation to pay the sum for which judgment has been given provided certain conditions are met. For a foreign judgment to be enforced in the Cayman Islands, such judgment must be final and conclusive and for a liquidated sum, and must not be in respect of taxes or a fine or penalty, inconsistent with a Cayman Islands judgment in respect of the same matter, impeachable on the grounds of fraud or obtained in a manner, and or be of a kind the enforcement of which is, contrary to natural justice or the public policy of the Cayman Islands (awards of punitive or multiple damages may well be held to be contrary to public policy). A Cayman Islands Court may stay enforcement proceedings if concurrent proceedings are being brought elsewhere. There is recent Privy Council authority (which is binding on the Cayman Islands Court) in the context of a reorganization plan approved by the New York Bankruptcy Court which suggests that due to the universal nature of bankruptcy/insolvency proceedings, foreign money judgments obtained in foreign bankruptcy/insolvency proceedings may be enforced without applying the principles outlined above. However, a more recent English Supreme Court authority (which is highly persuasive but not binding on the Cayman Islands Court), has expressly rejected that approach in the context of a default judgment obtained in an adversary proceeding brought in the New York Bankruptcy Court by the receivers of the bankruptcy debtor against a third party, and which would not have been enforceable upon the application of the traditional common law principles summarized above and held that foreign money judgments obtained in bankruptcy/insolvency proceedings should be enforced by applying the principles set out above, and not by the simple exercise of the Courts' discretion. Those cases have now been considered by the Cayman Islands Court. The Cayman Islands Court was not asked to consider the specific question of whether a judgment of a bankruptcy court in an adversary proceeding would be enforceable in the Cayman Islands, but it did endorse the need for active assistance of overseas bankruptcy proceedings. We understand that the Cayman Islands Court's decision in that case has been appealed and it remains the case that the law regarding the enforcement of bankruptcy/insolvency related judgments is still in a state of uncertainty.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements could be impaired, which could adversely affect our business.

Our financial reporting obligations as a public company place a significant strain on our management, operational and financial resources, and systems. We may not be able to implement effective internal controls and procedures to detect and prevent errors in our financial reports, file our financial reports on a timely basis in compliance with SEC requirements, or prevent and detect fraud. Our management may not be able to respond adequately to changing regulatory compliance and reporting requirements. We are both a “smaller reporting company” and an “accelerated filer” as defined under Rule 12b-2 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and no longer qualify as an “emerging growth company.” If we are not able to adequately implement the requirements of Section 404, we may not be able to assess whether internal controls over financial reporting are effective, which may subject us to adverse regulatory consequences and could harm investor confidence, the market price of our ordinary shares and our ability to raise additional capital.

Anti-takeover provisions in our organizational documents and Cayman Islands law may discourage or prevent a change of control, even if an acquisition would be beneficial to our shareholders, which could depress the price of our ordinary shares and prevent attempts by our shareholders to replace or remove our current management.

Our memorandum and articles of association contain provisions that may discourage unsolicited takeover proposals that shareholders may consider to be in their best interests. Our board of directors is divided into three classes with staggered, three year terms. Our board of directors has the ability to designate the terms of and issue preferred shares without shareholder approval. We are also subject to certain provisions under Cayman Islands law that could delay or prevent a change of control. Together these provisions may make more difficult the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our ordinary shares.

We are a “controlled company,” controlled by Energy Holding Corp., whose interest in our business may be different from ours or yours.

We are a “controlled company” within the meaning of the New York Stock Exchange listing standards. Under these rules, a company of which more than 50% of the voting power is held by an individual, a group or another company is a “controlled company” and may elect not to comply with certain corporate governance requirements of the New York Stock Exchange, including (i) the requirement that a majority of the board of directors consist of independent directors, (ii) the requirement that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities and (iii) the requirement that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities. Although we meet the definition of a “controlled company,” we have determined at this time not to take advantage of this designation and comply with all the corporate governance rules applicable to listed companies that are not controlled companies. We may, however, determine to take advantage of these exemptions in the future. If we did, you would not have the same protections afforded to stockholders of companies subject to all of the corporate governance requirements of the New York Stock Exchange.

We cannot assure you that we will continue to pay dividends on our ordinary shares, and our indebtedness, future investments or cashflow generation could limit our ability to continue to pay dividends on our ordinary shares.

Prior to August 2016, we had not paid any cash dividends on our ordinary shares. Since such time, we have paid regular quarterly dividends. However, the payment of any future dividends will be solely at the discretion of our Board of Directors and there can be no assurance that we will continue to pay dividends in the future.

If securities analysts do not publish research or reports about our business or if they downgrade our stock or our sector, our stock price and trading volume could decline.

The trading market for our ordinary shares relies in part on the research and reports that industry or financial analysts publish about us or our business. We do not control these analysts. Furthermore, if one or more of the analysts who do cover us downgrade our stock or our industry, or the stock of any of our competitors, or publish inaccurate or unfavorable research about our business, the price of our stock could decline. If one or more of these analysts ceases coverage of us or fail to publish reports on us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

If a United States person is treated as owning at least 10% of the value or voting power of our shares, such holder may be subject to adverse U.S. federal income tax consequences.

If a United States person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our shares, such person may be treated as a “United States shareholder” with respect to each “controlled foreign corporation” in our group (if any). While our parent company owns one or more U.S. subsidiaries, we, and certain of our non-U.S. subsidiaries, could be treated as controlled foreign corporations. Furthermore, while our group includes one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as controlled foreign corporations (regardless of whether or not we are treated as a controlled foreign corporation). A United States shareholder of a controlled foreign corporation generally is required to report annually and include in its U.S. taxable income its pro rata share of “Subpart F income,” “global intangible low-taxed income” and investments in U.S. property by controlled foreign corporations, regardless of whether we make any such United States shareholder receives any actual distributions. An individual that is a United States shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a United States shareholder that is a U.S. corporation. Failure to comply with these reporting obligations may subject a United States shareholder to significant monetary penalties and may prevent the statute of limitations with respect to such shareholder’s U.S. federal income tax return for the year for which reporting was due from starting. We cannot provide any assurances that we will assist investors in determining whether any of our non-U.S. subsidiaries are treated as a controlled foreign corporation or whether any investor is treated as a United States shareholder with respect to any of such controlled foreign corporations or furnish to any United States shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. There is substantial uncertainty as to the application of each of the foregoing rules as well as the determination of any relevant calculations in applying the foregoing rules. United States persons are strongly advised to avoid acquiring, directly, indirectly or constructively, 10% or more of the value or voting power of our shares. A United States investor should consult its advisors regarding the potential application of these rules to an investment in the ordinary shares.

Risks Related to the COVID-19 Global Pandemic

We face various risks related to health epidemics, pandemics and similar outbreaks, which may have material adverse effects on our business, financial position, results of operations and/or cash flows.

We face various risks related to health epidemics, pandemics and similar outbreaks, including the global outbreak of COVID-19. The outbreak of COVID-19 led to disruption and volatility in the global capital markets, which increases the cost of capital and adversely impacts access to capital. If significant portions of our workforce are unable to work effectively, including because of illness, quarantines, government actions, facility closures or other restrictions in connection with the COVID-19 pandemic, our operations will likely be impacted.

Since the outbreak of COVID-19 in December 2019, we strictly adhered to mandates and other guidance from local governments and global health authorities. Effective March 24, 2020, the Colombian government issued a nationwide order to, among other actions, close certain non-essential business activities through April 13, 2020 in response to the rapid spread of COVID-19 to many parts of the world. This order was later extended through April 27, 2020 and subsequently through May 11, 2020. Certain industry exemptions to Colombia’s nationwide work stoppage provide for the continuation of some operations at our facilities in Barranquilla, as well as our Vidrio Andino joint venture. Our operations in Colombia resumed in the third week of April 2020. Virtually all of the Company’s employees have been vaccinated against COVID-19 and are working on site.

As of December 31, 2022, Tecnoglass’s U.S. and Latin American customers are fully operational with many construction projects typically considered by jurisdictions to be essential business activities since the early stages of the pandemic. However, given the increasing number of new COVID-19 variants, demand in all served markets may slow down impacting all aspects of business in every U.S. State and Latin American country.

As of December 31, 2022, Tecnoglass had ample liquidity, including cashflow generated from operating activities and available lines of credit, ensuring sufficient access to capital. If necessary, the Company may significantly reduce its variable costs if production has to be scaled down as a result of market conditions and has implemented budget cuts and stricter controls on working capital to preserve cash.

We may be adversely affected by any disruption in our information technology systems. Our operations are dependent upon our information technology systems, which encompass all of our major business functions.

Increased global information technology security requirements, vulnerabilities, threats and a rise in sophisticated and targeted cybercrime pose a risk to the security of our systems, our information networks, and to the confidentiality, availability and integrity of our data, as well as to the functionality of our manufacturing process. Introduced or increased risk associated with remote work transition pose threats to workforce disruption, cybersecurity attacks and dissemination of sensitive personal data or proprietary confidential information to our business. A disruption in our information technology systems for any prolonged period could result in delays in executing certain production activities, logging and processing operational and financial data, communication with employees and third parties or fulfilling customer orders resulting in potential liability or reputational damage or otherwise adversely affect our financial results. We employ a number of measures to prevent, detect and mitigate these threats, which include employee education, password encryption, frequent password change events, firewall detection systems, anti-virus software in-place and frequent backups; however, there is no guarantee such efforts will be successful in preventing a cyber-attack.

During 2020, we transitioned for the first time a significant subset of our employee population to a remote work environment, in accordance with national government efforts to mitigate the spread of COVID-19. This transition allowed us to adequately maintain operations in our financial information systems and meant no significant changes to our internal control over financial reporting and disclosure control and procedures, enabled by our continuity plan adequate implementation which did not present any material incidents, challenges, expenditures or constraints. However, this transition may introduce and exacerbate certain risks to our business, including an increased demand for information technology resources, increased risk of phishing and other cybersecurity attacks, and increased risk of unauthorized dissemination of personal data or proprietary or confidential information about us, our members or related third parties.

As of the date of publication of this annual report, we have transitioned all our employee population back to physical presence at the workplace, in compliance with Colombian government recommendations for prevention and control of COVID-19. This transition allowed us to adequately maintain operations in our financial information systems and meant no significant changes to our internal controls over financial reporting, enabled by our continuity plan adequate implementation which did not present any material incidents, challenges, expenditures or constraints. This transition brings back a known work environment, mitigating certain risks including the demand for information technology resources, risk of phishing and other cybersecurity attacks, and risks of unauthorized dissemination of personal data or proprietary or confidential information about us, our members or related third parties.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We own and operate a total of 4.1 million square feet of manufacturing facilities. Our main 3.9 million square foot manufacturing complex, located in Barranquilla, Colombia, houses a glass production plant, aluminum plant and window and facade assembly plant. The glass plant has nine lamination machines with independent assembly rooms, eleven specialized tempering furnaces and glass molding furnaces, a computer numerical-controlled profile bending machine, as well as a coater to produce low emissivity glass with high thermal insulation specifications using soft coat technology. The Alutions plant has an effective installed capacity of 3,100 tons per month and can create a variety of shapes and forms for windows, doors, and related products. We also own eight natural gas power generation plants, six with an aggregate capacity of 10 megawatts, and two with 4.5 megawatts capacity each, which supply the electricity requirements of the entire manufacturing complex and are supported by three emergency generators. We also own and operate a 123,399 square foot manufacturing and warehousing facility in a 215,908 square foot lot in Miami-Dade County, Florida, United States. The facility houses manufacturing and assembly equipment, warehouse space, and administrative and sales offices.

We believe that our existing properties are adequate for the current operating requirements of our business and that additional space will be available as needed.

Item 3. Legal Proceedings.

From time to time, the Company is involved in legal matters arising in the regular course of business. Some disputes are derived directly from our construction projects, related to supply and installation, and even though deemed ordinary; they may involve significant monetary damages. We are also subject to other types of litigation arising from employment practices, worker's compensation, automobile claims and general liability. It is very difficult to predict precisely what the outcome of this litigation might be. However, with the information at our disposition as this time, there are no indications that such claims will result in a material adverse effect on the business, financial condition or results of operations of the Company.

Item 4. Mine Safety Disclosures.

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our ordinary shares are listed on the New York Stock Exchange under the symbol "TGLS".

Holders

As of December 31, 2022, there were 310 holders of record of our ordinary shares. We believe our ordinary shares are held by more than 3,000 beneficial owners.

Dividends

Prior to August 2016, we had not paid any cash dividends on our ordinary shares. Since such time, we have paid regular quarterly dividends. We expect to pay quarterly dividends in the future. However, the payment of any future dividends will be solely at the discretion of our Board of Directors and there can be no assurance that we will continue to pay dividends in the future. Our bond indenture currently restricts the type of dividend we can make while the bonds are outstanding. See "Description of Indebtedness" below for further information. The payment of dividends in the future, if any, will therefore also be contingent upon limitations imposed by our outstanding indebtedness.

Because we are a holding company, our ability to pay dividends depends on our receipt of cash dividends from our operating subsidiaries, which may further restrict our ability to pay dividends as a result of the laws of their jurisdictions of organization, agreements of our subsidiaries or covenants under any existing and future outstanding indebtedness we or our subsidiaries incur. The ability of our subsidiaries in Colombia to declare dividends up to the total amount of their capital is not restricted by current laws, covenants in debt agreements or other agreements.

Recent Sales of Unregistered Securities

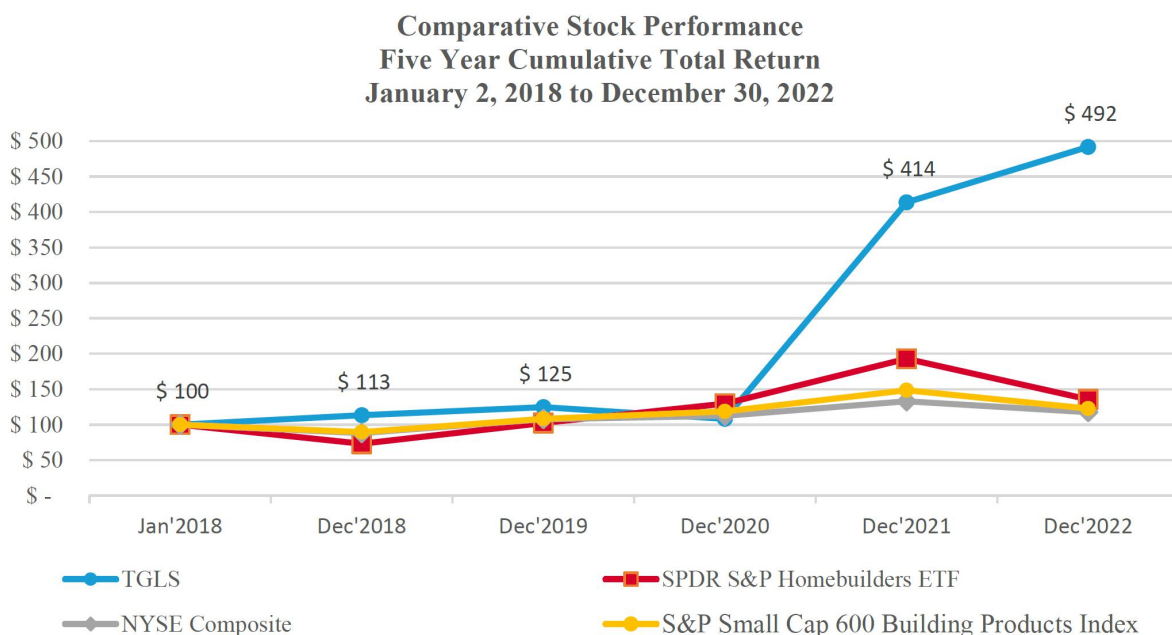
In connection with our Saint-Gobain joint venture, on October 28, 2020 we paid \$10.9 million for a lot of land through the issuance of an aggregate of 1,557,142 ordinary shares of the Company to affiliates of the CEO and COO’s family, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price on October 27, 2020. The land was later contributed in December as payment for our 25.8% interest in Vidrio Andino. The ordinary shares were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act as they were issued in a transaction by an issuer not involving any public offering.

Information about our equity compensation plans

Information required by Item 5 of Form 10-K regarding equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report on Form 10-K.

Stock performance graph

The following graph compares the cumulative total shareholder return for Tecnoglass, Inc. Ordinary Shares on a \$100 investment for the last five fiscal years with the cumulative total return on a \$100 investment in the SPDR S&P Homebuilders ETF Fund, which is an exchange-traded fund that seeks to replicate the performance of the S&P Homebuilders Select Industry Index, the Standard & Poor’s Small Cap 600 Growth Index, which is an index of companies with similar market capitalization and the NYSE Composite Index, a broad market index. The graph assumes an investment at the close of trading on December 30, 2023, and assumes the shareholder opted for share dividends during all periods.



Repurchases

No repurchases of shares or any class of our equity securities registered under Section 12 of the Exchange Act were made in the fourth quarter of the fiscal year covered by this Form 10-K by or on behalf of the Company or any affiliated purchaser (this term is defined in Rule 10b-18(a)(3) under the Exchange Act).

Item 6. [RESERVED].

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion of the Company's financial condition and results of operations should be read in conjunction with the Company's consolidated financial statements and notes to those statements included in this Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Please see the section entitled "Forward-Looking Statements and Introduction" in this Form 10-K.

Overview

We are a vertically integrated manufacturer, supplier and installer of architectural glass, windows and associated aluminum products for the global commercial and residential construction markets. With a focus on innovation, combined with providing highly specified products with the highest quality standards at competitive prices, we have developed a leadership position in each of our core markets. In the United States, which is our largest market, we were ranked as the third largest glass fabricator in 2022 by Glass Magazine. In addition, we believe we are the leading glass transformation company in Colombia. Our customers, which include developers, general contractors or installers for hotels, office buildings, shopping centers, airports, universities, hospitals and multi-family and residential buildings, look to us as a value-added partner based on our product development capabilities, our high-quality products and our unwavering commitment to exceptional service.

We have almost 40 years of experience in architectural glass and aluminum profile structure assembly. We transform a variety of glass products, including tempered safety, double thermo-acoustic and laminated glass. Our finished glass products are installed in a wide variety of buildings across a number of different applications, including floating facades, curtain walls, windows, doors, handrails, and interior and bathroom spatial dividers. We also produce aluminum products such as profiles, rods, bars, plates and other hardware used in the manufacturing of windows.

Our products are manufactured in a 4.1 million square foot, state-of-the-art manufacturing complex in Barranquilla, Colombia that provides easy access to North, Central and South America, the Caribbean and the Pacific. Our products can be found on some of the most distinctive buildings in these regions, including One Thousand Museum (Miami), Paramount Miami Worldcenter (Miami), Hub50House (Boston), Via 57 West (New York), AE'O Tower (Honolulu), Salesforce Tower (San Francisco), Trump Plaza (Panama), and Departmental Legislative Assembly (Bolivia). Our track record of successfully delivering high profile projects has earned us an increasing number of opportunities across the United States, evidenced by our expanding backlog and overall revenue growth.

Our structural competitive advantage is underpinned by our low-cost manufacturing footprint, vertically integrated business model and geographic location. Our integrated facilities in Colombia and distribution and services operations in Florida provide us with a significant cost advantage in both manufacturing and distribution, and we continue to invest in these operations to expand our operational capabilities. Our lower cost manufacturing footprint allows us to offer competitive prices for our customers, while also providing innovative, high quality and high value-added products, together with consistent and reliable service. We have historically generated high margin organic growth based on our position as a value-added solutions provider for our customers.

We have a strong presence in the Florida market, which represents a substantial portion of our revenue stream and backlog. Our success in Florida has primarily been achieved through sustained organic growth, with further penetration now taking place into other highly populated areas of the United States. As part of our strategy to become a fully vertically integrated company, we have supplemented our organic growth with some acquisitions that have allowed us added control over our supply chain allowed for further vertical integration of our business and will act as a platform for our future expansion in the United States. In 2016, we completed the acquisition of ESW, which gave us control over the distribution of products into the United States from our manufacturing facilities in Colombia. In March 2017, we completed the acquisition of GM&P, a consulting and glazing installation business that was previously our largest installation customer.

On May 3, 2019, we consummated the joint venture agreement with Saint-Gobain, acquiring a 25.8% minority ownership interest in Vidrio Andino, a Colombia-based subsidiary of Saint-Gobain, solidifying our vertical integration strategy by acquiring an interest in the first stage of our production chain, while securing ample glass supply for our expected production needs. Additionally, in April 2019, the Company acquired 70% equity interest in ESMetals, which has been consolidated in our financial statements since. ESMetals is a Colombian entity that serves as a metalwork contractor to supply the Company with steel accessories used in the assembly of certain architectural systems as part of our vertical integration strategy.

The continued diversification of the group's presence and product portfolio is a core component of our strategy. In particular, we are actively seeking to expand our presence in United States outside of Florida. We also launched a residential windows offering which, we believe, will help us expand our presence in the United States and generate additional organic growth. We believe that the quality of our products, coupled with our ability to price competitively given our structural advantages on cost, will allow us to generate further growth in the future.

Our company has focused on working with *The Power of Quality*, always making sure that our vision of sustainability is immersed into every aspect of our business, including social, environmental, economic and governance variables, that help us make decisions and create value for our stakeholders. We carry out a series of initiatives based on our global sustainability strategy, which is supported on three fundamental pillars: promoting an ethical and responsible continuous growth, leading eco-efficiency and innovation, and empowering our environment. As part of this strategy the Company has voluntarily adhered to UN Global Compact Principles since 2017 and in pursuit of our cooperation with the attainment of the Sustainable Development Goals ("SDGs") joined in 2021 a program to dynamize, strengthen and make visible the management of greenhouse gas emissions as a carbon neutral strategy set out by the Colombian government for 2050.

How We Generate Revenue

We are a leading manufacturer of hi-spec architectural glass and windows for the western hemisphere residential and commercial construction industries, operating through our direct and indirect subsidiaries. Headquartered in Barranquilla, Colombia, we operate out of a 4.1 million square foot vertically-integrated, state-of-the-art manufacturing complex that provides easy access to North, Central and South America, the Caribbean, and the Pacific.

Our glass products include tempered glass, laminated glass, thermo-acoustic glass, curved glass, silk-screened glass, and digital print glass as well as mill finished, anodized, painted aluminum profiles, and produces rods, tubes, bars and plates. Window production lines are defined depending on the different types of windows: normal, impact resistant, hurricane-proof, safety, soundproof and thermal. We produce fixed body, sliding windows, projecting windows, guillotine windows, sliding doors and swinging doors. ES produces facade products which include: floating facades, automatic doors, bathroom dividers and commercial display windows.

We sell to over 1,000 customers using several sales teams based out of Colombia and the United States to specifically target regional markets in South, Central and North America. The United States accounted for 96%, and 92% of our combined revenues in 2022 and 2021, respectively, while Colombia accounted for approximately 2% and 5%, and other Latin-American destinations accounted for approximately 2% and 3% in those years, respectively.

We sell our products through our main offices/sales teams based out of Florida and different regions in the US, which is our largest sales group and has strong relationships with glazing contractors, general contractors, real estate developers and specialty window dealers in the region. In late 2022, we launched two new showrooms, one in New York City and one in Charleston, SC, to serve primarily single family residential markets in their regions, and have plan to open additional showrooms in new geographies across the southern United States as part of our geographic expansion strategy. We also have sales forces located in Colombia and Panama with long-standing business relationships in the region to serve Latin American markets. We have two types of sales operations: Contract sales, which are the high-dollar, customer tailored projects, and standard form sales. Standard form sales reflect lower-value orders that are of short duration.

We expect to benefit from growth in our largest markets in the United States by gaining market share, broadening our geographic footprint within the U.S. and demographic factors favoring demand in the geographies served by us. According to FMI's 2023 Engineering and Construction Industry overview, construction put in place in the multifamily residential construction sector, which accounted for 64% of our backlog in 2022, is expected to increase 8.5% year over year in 2023, and U.S. nonresidential building construction put in place is expected to continue expanding through 2023, at an annualized rate of 7.9% to \$637 billion in and projected to remain at similar levels through 2026. According to Key Media & Research ("KMR") data, the volume of architectural glass used in nonresidential construction will expand for a second-straight year, albeit at a slower pace, by 4.7% in 2023 to 178.1 million square feet, following a 6.7% uptick the year before. These stable to positive macro trends combined with a lean cost structure, leave us well positioned maintain industry leading margins and further diversify our presence into the U.S.

Liquidity

As of December 31, 2022, and 2021, we had cash and cash equivalents of approximately \$103.7 million and \$85.0 million, respectively. During the year ended December 31, 2022, the main source of cash was operating activities, which generated \$141.9 million.

In October 2020, the Company entered a \$300 million five-year term Senior Secured Credit Facility consisting of a \$250 million delayed draw term loan and a \$50 million committed revolving credit facility which bore interest at a rate of LIBOR, with a 0.75% floor, plus a spread of between 2.50% and 3.50%, based on the Company's net leverage ratio. In December 2020, we used \$23.1 million proceeds of the long-term debt facility to repay several credit facilities. Subsequently, in January 2021 we redeemed the Company's existing \$210 million unsecured senior notes, which had an interest rate of 8.2% and matured in January 2022 using proceeds from this new facility and incurred an extinguishment cost of \$10.9 million including \$8.6 of call premium to exercise the call option.

In November 2021, the Company amended its Senior Secured Credit Facility to (i) increase the borrowing capacity under its committed Line of credit from \$50 million to \$150 million, (ii) reduce its borrowing costs by an approximate 130 basis points, and (iii) extend the initial maturity date by one year to the end of 2026. The modification also included a re-sizing of the term loan to \$200 million for a total facility size of up to \$350 million including the revolving credit facility. Borrowings under the credit facility will now bear interest at a rate of LIBOR with no floor plus a spread of 1.75%, based on the Company's net leverage ratio, compared to a prior rate of LIBOR with a floor of 0.75% plus a spread of 2.50%. The facility was led by PNC Bank N.A as Administrative Agent; with Citizens Bank N.A, BBVA USA, CIT Bank and Wells Fargo Bank N.A serving as Joint Lead Arrangers. The effective interest rate for this credit facility including deferred issuance costs is 2.81%. We recorded total costs and fees of \$1.5 million related to this transaction, of which \$1.4 million of fees paid to banks were capitalized as deferred cost of financing, and \$0.2 million paid to third parties recorded as an operating expense on the consolidated statements of operations for the year 2021. This transaction was accounted for as a debt modification.

In March 2022, we voluntarily prepaid \$15 million of capital to this credit facility which has decreased our net leverage ratio and triggered a step down in the applicable interest rate spread to 1.5%. Additionally, on September 30, 2022, we voluntarily prepaid \$10.0 million of the term loan and \$6.7 million under the revolving line of credit, which is fully unused as of December 31, 2022. We thereby reduced our financing cost, despite global increases in interest rates.

As of December 31, 2022, we had a strong liquidity position, comprised of \$170 million available under committed lines of credit, in addition to a cash balance of \$103.7 million. We anticipate that working capital will continue to be a net benefit to cash flow in the near future, which in addition to our current liquidity position, provides ample flexibility to service our obligations through the next twelve months.

Capital Resources

We transform glass and aluminum into high specification architectural glass and custom-made aluminum profiles which require significant investments in state-of-the-art technology. During the years ended December 31, 2022, and 2021, we made investments primarily in building and construction, and machinery and equipment in the amounts of \$83.2 million, and \$53.4 million, respectively. We believe our investments in technology within recent years have positioned us well for continued growth given the flexibility afforded by our current installed capacity, improved profitability and enhanced cash generation in the years ahead. Recent examples of our high return investments within the last two years include:

- Automation of six window assembly production lines, increasing efficiencies, labor and material waste costs with an estimated reduction of on-site damage by 30%;
- Additional aluminum expansion project to increase capacity by approximately 400 tons/month;
- Automation of additional glass lines, increasing efficiencies on an end-to-end basis reducing lead times, headcount and on-site damage by approximately 40%;
- Upgrade vacuum magnetron sputter coating machinery which will allow to coat glass before tempering;
- Construction of 500,000 square feet warehouse with two numerical punching machines, two metal benders and a complete painting line.
- Automation of two centralized aluminum warehouses for storing, sorting and delivering extrusion matrices and aluminum profiles to our internal production processes that reduce lead times for the assembly of architectural systems and reduce on-site damage to materials

On May 3, 2019, we consummated a joint venture agreement with Saint-Gobain, a world leader in the production of float glass, a key component of our manufacturing process, whereby we acquired a 25.8% minority ownership interest in Vidrio Andino, a Colombia-based subsidiary of Saint-Gobain. The purchase price for our interest in Vidrio Andino was \$45 million, of which \$34.1 million was paid in cash and \$10.9 million paid through the contribution of land on December 9, 2020. On October 28, 2020 we acquired said land from a related party and paid for it with the issuance of an aggregate of 1,557,142 ordinary shares of the Company, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price as of October 27, 2020.

The land will serve the purpose of developing a second float glass plant nearby our existing manufacturing facilities which we expect will carry significant efficiencies for us once it becomes operative, in which we will also have a 25.8% interest. The new plant will be funded with proceeds from the original cash contribution made by the Company, operating cash flows from the Bogota plant, debt incurred at the joint venture level that will not consolidate into the Company and an additional contribution by us of approximately \$12.5 million if needed (based on debt availability).

Results of Operations (Amounts in thousands)

	Twelve months ended December 31,		
	2022	2021	2020
Operating revenues	\$ 716,570	\$ 496,785	\$ 376,607
Cost of sales	367,071	294,201	237,166
Gross profit	349,499	202,584	139,441
Operating expenses	(123,084)	(85,599)	(73,734)
Operating income	226,415	116,985	65,707
Non-operating income and expenses, net	4,218	608	89
Foreign currency transactions gains / (losses)	2,013	(4,308)	(8,638)
Equity method income	6,680	4,177	1,387
Interest expense and deferred cost of financing	(8,156)	(9,850)	(21,671)
Debt extinguishment	-	(10,699)	-
Income tax provision	(74,758)	(28,485)	(13,033)
Net income	156,412	68,428	23,841
(Income) loss attributable to non-controlling interest	(669)	(277)	34
Income attributable to parent	\$ 155,743	\$ 68,151	\$ 23,875

Comparison of years ended December 31, 2022, and December 31, 2021

Our operating revenue increased \$219.8 million, or 44.2%, from \$496.8 million in the year ended December 31, 2021, to \$716.6 million in the year ended December 31, 2022.

Strong sales during 2022 were driven by U.S. single family residential and commercial market activity. U.S. sales increased \$232.0 million, or 50.8%, from \$456.3 million in 2021 to \$688.4 million in 2022. U.S. Single family residential market sales increased \$129.1 million, or 72.8%, from \$177.4 million in 2021 to \$306.4 million in 2022 and accounted for 42.8% of total sales in the year ended December 31, 2022. U.S. Commercial market sales increased \$102.9 million, or 36.9%, from \$279.0 million to \$382.0 million as we continue to execute on our growing backlog. Sales to Latin-American markets decreased \$12.2 million, or 30.3%, from \$40.5 million to \$28.2 million in 2022 as we focus our efforts on more attractive U.S. markets.

Gross profit increased \$146.9 million, or 72.5%, to \$349.5 million during the year ended December 31, 2022, compared with \$202.6 million during the same period of 2021. This resulted in gross profit margin reaching 48.8% during the year ended December 31, 2022, up from 40.8% during the year ended December 31, 2021. The 800-basis point improvement in gross margin can be mainly attributable to operating leverage on higher sales, favorable product pricing dynamics, ongoing efficiency efforts, and favorable foreign exchange rates resulting from a depreciation of the Colombian peso.

Operating expenses increased \$37.5 million, or 43.8%, from \$85.6 million to \$123.1 million for the year ended December 31, 2021, and 2022, respectively. The increase was driven by \$16.2 million, or 70.4%, increase in shipping expense resulting from sales increasing 44.2% along with some increases in shipping rates and a higher mix of sales going into the more atomized US residential market, a \$3.4 million in non-recurring professional fees, and by a \$4.6 million one-time settlement payment associated with a dispute related to a project.

During the year ended December 31, 2022, and 2021, the Company recorded a net non-operating income of \$4.2 million and non-operating income of \$0.6 million, respectively. Non-operating income is comprised primarily of income from rental properties and gains on sale of scrap materials and charges to customers on credit card payments, as well as non-operating expenses related to certain charitable contributions outside of the Company's direct sphere of influence.

Interest expense and deferred cost of financing decreased \$1.7 million, or 17.2%, to \$8.2 million during the year ended December 31, 2022, from \$9.9 million during the year ended December 31, 2021, despite increases in floating interest rates as a result of a reduction of our debt balance.

During the year ended December 31, 2022, the Company recorded a non-operating gain of \$2.0 million associated with foreign currency transactions. Comparatively, the Company recorded a net loss of \$4.3 million during the year ended December 31, 2021, within the statement of operations as the Colombian peso depreciated 20.8% during the period.

During the year ended December 31, 2022, and 2021, the Company recorded an income tax provision of \$74.8 million and \$28.5 million, respectively, reflecting an effective income tax rate of 32.3% and 29.4%, respectively. The effective income tax rates for both years approximate the statutory rate of 33.8% and 29.6% for the fiscal years 2022 and 2021, respectively.

As a result of the foregoing, the Company recorded a net income for the year ended December 31, 2022, of \$156.4 million compared to \$68.4 million in the year ended December 31, 2021.

Comparison of years ended December 31, 2021, and December 31, 2020

Our operating revenue increased \$120.2 million, or 31.9%, from \$376.6 million in the year ended December 31, 2020, to \$496.8 million in the year ended December 31, 2021. In early 2020, initial COVID-19 lockdowns and other preventive measures slowed down our business, especially in Latin America as several customers halted activities and we shut down our manufacturing facilities in Colombia between March 24, 2020, and April 13, 2020 during the nationwide shelter-in-place order.

Strong sales during 2021 were driven by U.S. single family residential and commercial market activity. U.S. sales increased \$115.9 million, or 34.0%, from \$340.4 million in 2020 to \$456.3 million in 2021. Single family residential market sales increased \$106.7 million, or 151.1%, from \$70.6 million in 2020 to \$177.3 million in 2021, and accounted for 35.7% of total sales in the year ended December 31, 2021.

Sales to Latin-American markets, including Colombia increased \$4.3 million, or 11.9%, as our customers continue to return to activities after lockdowns in slowly recovering markets.

Gross profit increased \$63.1 million, or 45.3%, to \$202.6 million during the year ended December 31, 2021, compared with \$139.4 million during the same period of 2020. This resulted in gross profit margin reaching 40.8% during the year ended December 31, 2021, up from 37.0% during the year ended December 31, 2020. The 380-basis point improvement in gross margin mainly reflected a higher mix of revenue from manufacturing versus installation activity as we continue to grow into single family residential, greater operating efficiencies from prior automation initiatives and operating leverage on higher revenues.

Operating expenses increased \$11.9 million, or 16.1%, from \$73.7 million to \$85.6 million for the year ended December 31, 2020, and 2021, respectively. The increase was driven by \$7.0 million, or 43.5% increase in shipping expense resulting from sales increasing 31.9% along with some increases in shipping rates and more shipping into the U.S., a \$2.6 million, or 31.6% increase in sales commissions, \$1.6 million or 9.9% increase in personnel expense partially offset by a reduction in certain taxes and other expenses. Operating expenses as a percentage of sales improved from 19.6% in 2020 to 17.2% in 2021, as a result of operating leverage from higher sales and our continued effort to enhance our lean administrative structure and tight cost controls.

During the year ended December 31, 2021, and 2020, the Company recorded a net non-operating income of \$0.6 million and non-operating income of \$0.1 million, respectively. Non-operating income is comprised primarily of income from rental properties and gains on sale of scrap materials as well as non-operating expenses related to certain charitable contributions outside of the Company's direct sphere of influence.

Interest expense and deferred cost of financing decreased \$11.8 million, or 54.5%, to \$9.9 million during the year ended December 31, 2021 from \$21.7 million during the year ended December 31, 2020 as a result of our new financing arrangement further described above in the liquidity section. The current period does not fully capture the effect of the decrease in interest rates associated to the new syndicated facility given that the senior notes were taken out on January 30, 2021.

During the year ended December 31, 2021, the Company recorded a non-operating loss of \$4.3 million associated with a foreign currency transaction, which excludes a non-cash \$8.5 million foreign currency transaction loss from remeasurement of certain intercompany loans reclassified to other comprehensive income. Comparatively, the Company recorded a net loss of \$8.6 million during the year ended December 31, 2020, within the statement of operations as the Colombian peso depreciated 16.0% during the period.

During the year ended December 31, 2021, and 2020, the Company recorded an income tax provision of \$28.5 million and \$13.0 million, respectively, reflecting an effective income tax rate of 29.4% and 35.3%, respectively. The effective income tax rate of 29.4%, during the year ended December 31, 2021, approximates the statutory rate. The effective income tax rate for the year ended December 31, 2020, of 35.3% reflects the impact of unrealized foreign currency transaction losses related to the remeasurement of long-term liabilities of our Colombian subsidiaries which were expected to be realized at a later year in which a lower income tax rate was expected to apply per tax regulation at the time.

As a result of the foregoing, the Company recorded a net income for the year ended December 31, 2021, of \$68.4 million compared to \$23.8 million in the year ended December 31, 2020.

Cash Flow from Operations, Investing and Financing Activities

During the year ended December 31, 2022, and 2021, operating activities generated approximately \$141.9 million and \$117.3 million, respectively. The positive cashflow from operations during the year ended December 31, 2022 has been related to a much higher profitability year over year, enhanced working capital efforts, reduced interest expense and a higher share of our revenue mix coming from the single-family residential space, which has a shorter cash cycle.

The main source of operating cash during the year ended December 31, 2022, were taxes payable, which generated \$45.3 million related to higher income tax provision as a result of increased profitability, compared with \$16.1 million during the year ended December 31, 2022. Contract assets and liabilities which generated \$16.2 million, resulting from a combination of a decrease in retainage as several jobs in the US were finalized, a reduction of unbilled receivables tied to our advance on projects currently in execution, and increased advances received from customers. Comparatively, contract assets and liabilities generated \$28.6 million during the year ended December 31, 2021. Additionally, trade accounts payable generated \$7.2 million and \$38.0 million during full years ended December 31, 2022 and 2021, respectively. Cash provided by trade accounts payable is related to increasing purchases to support our growing material needs commensurate with our increased output. The largest use of cash in operating activities was inventories, which used \$63.9 million during the year ended December 31, 2022, compared with \$16.7 million used during the year ended December 31, 2021, as we procure materials to support our ongoing growth. In addition, trade accounts receivable used \$54.2 million as a result of our record sales during the year ended December 31, 2022, while days sales outstanding stood at 80 days as of both December 31, 2022, and 2021 (which include transit times into the US and other places). Trade accounts receivable used \$38.5 million during the year ended December 31, 2021.

We used \$72.6 million and \$50.8 million in investing activities during the year ended December 31, 2022, and 2021, respectively. The main use of cash in investing activities during 2022, was related to the automation of our architectural system assembly processes and incremental land purchases as further described above in the Capital Resources section. During the year ended December 31, 2022, we paid \$71.3 million to acquire property, plant and equipment, which in combination with \$11.8 million acquired under credit, amount to total capital expenditures of \$83.2 million. During 2021, we used \$51.5 million for the acquisition of property and equipment. Including assets acquired with debt or supplier credit, total capital expenditures during the period were \$53.4 million.

Financing activities used \$44.8 million and \$43.8 million during the year ended December 31, 2022, and 2021, respectively. During the first quarter of 2022 we voluntarily prepaid \$15 million of capital to this credit facility which has decreased our net leverage ratio and triggered a step down in the applicable interest rate spread to 1.5% and later prepaid an additional \$6.7 million under our revolving line of credit and \$10 million under our term loan on September 30, 2022, with cash on hand. Outflows during the year ended December 31, 2021, include the full redemption of the \$210 million unsecured senior notes, which bore interest at a rate of 8.2% and matured in 2022, following a step down in redemption price at the end of January 2021, along with \$8.6 million for the corresponding call premium. These payments were made with proceeds of the new Senior Secured Credit Facility for up to \$300 million, of which we received proceeds of \$220 million during the twelve-month period.

Off-Balance Sheet Arrangements

We did not have any material off-balance sheet arrangements as of December 31, 2022, or 2021.

Critical Accounting Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make significant estimates and assumptions that affect the assets, liabilities, revenues and expenses, and other related amounts during the periods covered by the financial statements. Management routinely makes judgments and estimates about the effect of matters that are inherently uncertain. As the number of variables and assumptions affecting the future resolution of the uncertainties increases, these judgments become more subjective and complex. We have identified the following accounting policies as the most important to the presentation and disclosure of our financial condition and results of operations.

Revenue Recognition

For supply and installation contracts, the performance obligations are satisfied over time and control is deemed to be transferred when the contract is accepted by our customers. Revenues from supply and installation contracts are recognized using the cost-to-cost method, measured by the percentage of costs incurred to date to total estimated costs for each contract. Contract modifications routinely occur to account for changes in contract specifications or requirements. In most cases, contract modifications are for goods or services that are not distinct and, therefore, are accounted for as part of the existing contract. Transaction price estimates include additional consideration for submitted contract modifications or claims when the Company believes it has an enforceable right to the modification or claim, the amount can be reliably estimated and its realization is reasonably assured. Amounts representing modifications accounted for as part of the existing contract are included in the transaction price and recognized as an adjustment to sales on a cumulative catch-up basis.

Trade Accounts Receivable

Trade accounts receivable are recorded net of allowances for cash discounts for prompt payment, doubtful accounts and sales returns. The Company's policy is to reserve for uncollectible accounts based on its best estimate of the amount of probable credit losses in its existing accounts receivable. The Company periodically reviews its accounts receivable to determine whether an allowance for doubtful accounts is necessary based on an analysis of past due accounts and other factors that may indicate that the collectability of an account may be in doubt. Other factors that the Company considers include its existing contractual obligations, historical payment patterns of its customers and individual customer circumstances, and a review of the local economic environment and its potential impact on the collectability of accounts receivable. Account balances are deemed to be uncollectible and are charged off within 90 days of having recorded an allowance and all means of collection have been exhausted and the potential for recovery is considered remote.

Inventories

Inventories of raw materials, which consist primarily of purchased and processed glass, aluminum, parts and supplies held for use in the ordinary course of business, are valued at the lower of cost or net realizable value. Cost is determined using a weighted-average method. Inventory consisting of certain job specific materials not yet installed (work in process) are valued using the specific identification method. Cost for finished product inventory are recorded and maintained at the lower of cost or market. Cost includes raw materials and direct and applicable indirect manufacturing overheads. Also, inventories related to contracts in progress are included within work in process and finished goods, and are stated at using the specific identification method and lower of cost or market, respectively, and are expected to turn over in less than one year.

Reserves for excess or slow-moving raw materials inventories are updated based on historical experience of a variety of factors including sales volume and levels of inventories at the end of the period. The Company does not maintain allowances for the lower of cost or market for inventories of finished products as its products are manufactured based on firm orders rather than built-to-stock.

Income taxes

The Company is subject to income taxes in some jurisdictions. Significant judgment is required when determining the worldwide provision for income taxes. The provision for income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax basis of the Company's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. For each tax jurisdiction in which the Company operates, deferred tax assets and liabilities are offset and are presented as a single noncurrent amount within the consolidated balance sheets.

There are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

The Company recognizes the financial statement effects of uncertain income tax positions when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. The Company accrues for other tax contingencies when it is probable that a liability to a taxing authority has been incurred and the amount of the contingency can be reasonably estimated. Interest accrued related to unrecognized tax and income tax related penalties are included in the provision for income taxes. The uncertain income taxes positions are recorded in "Taxes payable" in the consolidated balance sheets.

Long Lived Assets

The Company periodically reviews the carrying values of its long-lived assets when events or changes in circumstances would indicate that it is more likely than not that their carrying values may exceed their realizable values, and record impairment charges when considered necessary.

When circumstances indicate that an impairment may have occurred, the Company tests such assets for recoverability by comparing the estimated undiscounted future cash flows expected to result from the use of such assets and their eventual disposition to their carrying amounts. If the undiscounted future cash flows are less than the carrying amount of the asset, an impairment loss, measured as the excess of the carrying value of the asset over its estimated fair value, is recognized. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Property, plant and equipment are recorded at cost less accumulated depreciation. Significant improvements and renewals that extend the useful life of the asset are capitalized. Interest incurred while acquired property is under construction and installation are capitalized. When property is retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any related gains or losses are included in income as a reduction to or increase in selling, general and administrative expenses. Depreciation is computed on a straight-line basis, based on the following estimated useful lives:

Buildings	20 years
Aircraft	20 years
Machinery and equipment	10 years
Furniture and fixtures	10 years
Office equipment and software	5 years
Vehicles	5 years

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to ongoing market risk related to changes in interest rates, foreign currency exchange rates and commodity market prices.

A rise in interest rates could negatively affect the cost of financing for a significant portion of our debt with variable interest rates. If interest rates were to increase over the next 12 months by 100 basis points, net earnings would decrease by approximately \$0.5 million based the current composition of our indebtedness. This market risk exposure is net of the effect from interest rate hedging derivative financial instruments further described in the footnotes to the financial statements.

We are subject to market risk due to changes in the value of foreign currencies in relation to our reporting currency, the U.S. Dollar. Some of our subsidiaries' operations are based in Colombia, and primarily transact business in local currency. Approximately 2% of our consolidated revenues and 37% of our costs and expenses are denominated in Colombian pesos, thereby mitigating some of the risk associated with changes in foreign exchange rates. However, as our costs and expenses in Colombian Pesos exceed, a 5% appreciation of the Colombian Peso relative to the U.S. Dollar would result in our annual revenues increasing by \$0.8 million and our costs and expenses increasing by approximately \$10.8 million, resulting in a \$10.0 million decrease to net earnings based on results for the twelve months ended December 31, 2022.

Similarly, a significant portion of the monetary assets and liabilities of these subsidiaries are generally denominated in U.S. Dollars, while their functional currency is the Colombian peso, thereby resulting in gains or losses from remeasurement of assets and liabilities using end of period spot exchange rate. These subsidiaries have both monetary assets and monetary liabilities denominated in U.S. Dollars, thereby mitigating some of the risk associated with changes in foreign exchange rate. U.S. Dollar denominated monetary assets exceed their monetary liabilities by \$28.4 million, such that a 1% devaluation of the Colombian peso will result in a loss of \$0.3 million recorded in the Company's Consolidated Statement of Operations as of December 31, 2022.

Additionally, the results of the foreign subsidiaries must be translated into U.S. Dollar, our reporting currency, in the Company's consolidated financial statements. The currency translation of the financial statements using different exchange rates, as appropriate, for different parts of the financial statements generates a translation adjustment, which is recorded within other comprehensive income on the Company's Consolidated Statement of Comprehensive Income and Consolidated Balance Sheet.

We are also subject to market risk exposure related to volatility in the prices of aluminum, one of the principal raw materials used for our manufacturing. The commodities markets, which include the aluminum industry, are highly cyclical in nature, and as a result, prices can be volatile. Commodity costs are influenced by numerous factors beyond our control, including general economic conditions, the availability of raw materials, competition, labor costs, freight and transportation costs, production costs, import duties and other trade restrictions. Our selling prices are also impacted by changes in commodity costs base our pricing of aluminum products based on the quoted price on the London Metals Exchange plus a manufacturing premium with the intention of aligning cost of our raw materials with selling prices to attempt to pass commodity price changes through to our customers.

We cannot accurately estimate the impact a one percent change in the commodity costs would have on our results of operation, as the change in commodity costs would both impact the cost to purchase materials and our selling prices. The impact to our results of operations depends on the conditions of the market for our products, which could impact our ability to pass commodities costs to our customers.

Item 8. Financial Statements and Supplementary Data.

Our consolidated financial statements, together with the report of our independent registered public accounting firm, appear commencing on page F-1 of this Annual Report on Form 10-K and are incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosures.

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We performed an evaluation required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, as amended, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of Tecnoglass, Inc.'s design and operating effectiveness of the internal controls over financial reporting as of the end of the period covered by this Annual Report. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, were effective as of December 31, 2022, in order to provide reasonable assurance that the information disclosed in our reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended.

A company's internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the company, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Our management, including the participation of our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of our internal control over financial reporting, as of December 31, 2022, based on criteria set forth in the *"Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)"*.

Based on this evaluation, our management concluded that our internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. PwC Contadores y Auditores S.A.S. has independently assessed the effectiveness of our internal control over financial reporting and its report is included below.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Attestation Report of Registered Public Accounting Firm

The report of our independent registered public accounting firm appears commencing on page F-1 of this Annual Report on Form 10-K and is incorporated herein by reference.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors and Executive Officers

Our current directors and executive officers are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
José M. Daes	63	Chief Executive Officer and Director
Christian T. Daes	59	Chief Operating Officer and Director
Santiago Giraldo	47	Chief Financial Officer
Lorne Weil	77	Non-Executive Chairman of the Board
Luis Fernando Castro Vergara	56	Director
Anne Louise Carricarte	56	Director
Julio A. Torres	56	Director
Carlos Alfredo Cure Cure	78	Director

José M. Daes has served as our CEO and member of the board of directors since December 2013. Mr. Daes has more than 30 years of experience in the operation of businesses in Colombia and the United States. Since 1983, he has led the Tecnoglass group, founded with his brother Christian Daes.

José Manuel is responsible for the continuous, ethical and responsible management and growth of the company, leading the development of innovative products to meet the changing needs of our customers in the commercial and residential construction market, always keeping in mind the best governance practices and maximizing the intrinsic value for our shareholders.

We believe Mr. Daes is well-qualified to serve as a member of our board of directors due to his operational experience with ES and TG, our operating subsidiaries, and his knowledge of the industry within which they operate.

Christian T. Daes has served as our Chief Operating Officer and member of the board of directors since December 2013. Mr. Daes has served as the chief executive officer of TG since its inception in 1994. Mr. Daes leads the automation projects, which reduce the consumption of materials and increase the efficiency of the company, maintaining the highest safety standards for our workers and the entire international supply chain.

Mr. Daes leads the corporate strategy through innovation, use of technology, energy generation through alternative sources and solidarity with our stakeholders.

Mr. Daes is the younger brother of Jose M. Daes, our chief executive officer.

Santiago Giraldo has served as our Chief Financial Officer since 2016. He joined Tecnoglass with significant financial experience, in capital markets, bank debt, derivatives, treasury, M&A and equity related transactions. Mr. Giraldo received a Business Administrator (cum laude) from Washburn University and holds an MBA with an emphasis in International Business and Finance from California State University at Pomona.

In his role as CFO, Santiago preserves transparency and timely reporting to our stakeholders, in which he identifies the most important environmental, social and governance issues and metrics when making decisions, leading to good investor relations and long-term projects aligned with the company's strategy.

A. Lorne Weil has been our Parent Company's Non-Executive Chairman of the Board of Directors since its inception. Mr. Weil was also the Chairman of the Board of Scientific Games Corporation from October 1991 to November 2013, and was the Company's Chief Executive Officer for all but approximately 24 months of that time. During his tenure, Scientific Games grew from under \$50 million in annualized revenue to approximately \$2 billion. Mr. Weil received a Bachelor of Commerce from the University of Toronto, an M.S. from the London School of Economics and an M.B.A. from Columbia University.

Luis Fernando Castro Vergara has served on our board of directors since November 2018. Since 2017, Mr. Castro Vergara has been serving as a fund manager in the agroindustry sector and overseeing his investments in the construction, infrastructure and agroindustry sectors. Mr. Castro Vergara served as the Chief Executive Officer of Banco de Comercio Exterior de Colombia S.A., Colombia's development bank, from 2013 to 2017. From 2007 to 2008 and 2012 to 2013, Mr. Castro Vergara was the General Manager of Agrodex International SAS, an import and marketing food company. From 2008 to 2012, he was the Regional Development Agency President of the Barranquilla Chamber of Commerce. Previously, he was General Manager of Provyser S.A., a commercialization and logistics services company in the food industry. He is on the board of directors of Unimed Pharmaceuticals Limited, where he also serves as member of the Audit Committee, and of Colombian the Colombian companies Accenorte SAS and Devimed SAS. Mr. Castro Vergara received a B.S. from Fordham University, a B.S. from Columbia University and a M.B.A. from the Universidad de los Andes Bogota in Colombia. He has complementary education in economic development from Harvard University, strategy and leadership from Pennsylvania University and management from Northwestern University.

Anne Louise Carricarte has over 35 years of experience in domestic and international marketing, sales, administration, and management. She is a business entrepreneur, executive consultant, and inspirational speaker skilled in motivation, training, negotiation, and in-depth team building. Ms. Carricarte is the Chief Executive Officer of Simple Results, Inc., a consulting company she founded in 2006, where she collaborates on multi-cultural projects between countries, generations, professions, and faiths in both the private and public sectors. Since 2004, Ms. Carricarte has served as an advisor to Grove Services, a farm-land asset management company, and Unity Groves, which provides 'end-to-end' produce distribution to major US food chains. She is also one of seven board members for Mathon Investments Corporation, a private fund that manages investments and lending services. From 1992 until she founded Simple Results, Ms. Carricarte was the Chief Operating Officer of Amedex Holding Insurance Companies/USA Medical and Chief Executive Officer of Amedex International, which provided health and life insurance products and related services to clients in Latin America and the Caribbean.

Julio A. Torres has been a member of our Parent Company's Board of Directors since October 2011. He previously served as our Parent Company's co-Chief Executive Officer from October 2011 through January 2013. Since March 2008, Mr. Torres has served as Managing Director of Nexus Capital Partners, a private equity firm. From April 2006 to February 2008, Mr. Torres served with the Colombian Ministry of Finance acting as the general director of public credit and the treasury. From June 2002 to April 2006, Mr. Torres served as Managing Director of Diligo Advisory Group, an investment banking firm. From September 1994 to June 2002, Mr. Torres served as Vice President with JPMorgan Chase Bank. Mr. Torres received a degree in systems and computer engineering from Los Andes University, a M.B.A. from Northwestern University and a M.P.A. from Harvard University..

Carlos Alfredo Cure Cure has served on the Board of Directors of our Parent Company since September 2019. Mr. Cure Cure currently acts as external advisor to Grupo Olímpica, one of the largest multi-industry conglomerates in Colombia, and is the former president of the Board of Directors of Ecopetrol S.A. (NYSE: EC), the leading oil & gas company in Colombia. From 2011 to 2013, Mr. Cure Cure served as the Colombian Ambassador to Venezuela. Earlier in his career, Mr. Cure Cure was the Financial Manager of Cementos del Caribe, General Manager of Cementos Toluviejo, General Manager of Astilleros Unión Industrial, and Sociedad Portuaria de Barranquilla. Mr. Cure cure has served as a board member of Avianca (NYSE: AVH) and Isagen, and is the former President of Bavaria S.A. (AB Inbev, EBR: ABI). Mr. Cure Cure earned a B.S. in Civil Engineering from Universidad Nacional de Colombia.

Code of Conduct

In October 2017, we adopted an updated code of conduct that applies to all of our executive officers, directors and employees. The code of conduct codifies the business and ethical principles that govern all aspects of our business. We will provide, without charge, upon request, copies of our code of conduct. Requests for copies of our code of conduct should be sent in writing to Tecnoglass Inc., Avenida Circunvalar a 100 mts de la Via 40, Barrio Las Flores, Barranquilla, Colombia, Attn: Corporate Secretary. Readers can also obtain a copy of our code of conduct on our website at <http://investors.tecnoglass.com/corporate-governance.cfm>.

Changes to Shareholder Nominations Procedures

There have been no material changes to the procedures by which security holders may recommend nominees to our board of directors.

Audit Committee and Financial Expert

We have a standing audit committee of the board of directors, which consisted of Carlos Cure, Luis Fernando Castro and Julio Torres, with Carlos Cure serving as chairman during 2022. Each of the members of the audit committee is independent under the applicable NYSE listing standards.

As required by the NYSE listing standards, the audit committee will at all times be composed exclusively of independent directors who are “financially literate.” NYSE listing standards define “financially literate” as being able to read and understand fundamental financial statements, including a company’s balance sheet, income statement, and statement of cash flows. In addition, the Company must certify to NYSE the committee has, and will continue to have, at least one member who has past employment experience in finance or accounting, requisite professional certification in accounting, or other comparable experience or background that results in the individual’s financial sophistication. The Board of Directors has determined that Carlos Cure satisfies NYSE’s definition of financial sophistication and also qualifies as an “audit committee financial expert” as defined under rules and regulations of the Securities and Exchange Commission.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires the Company’s directors, executive officers and persons who beneficially own 10% or more of a class of securities registered under Section 12 of the Exchange Act to file reports of beneficial ownership and changes in beneficial ownership with the SEC. Directors, executive officers and greater than 10% stockholders are required by the rules and regulations of the SEC to furnish the Company with copies of all reports filed by them in compliance with Section 16(a). To the Company’s knowledge, based solely on a review of reports furnished to it and review of the Section 16 reports (Forms 3, 4 and 5 and any amendments to those forms) filed during (or with respect to) the fiscal year ended December 31, 2022, all of the Company’s officers, directors and ten percent holders have timely made the required filings except for one filing, by Energy Holding Corp., a 10% owner of the Company, which was filed late on April 22, 2022 to report one transaction that occurred April 12, 2022.

Item 11. Executive Compensation.

Overview; Compensation Discussion and Analysis

Our policies with respect to the compensation of our executive officers are administered by our board in consultation with our compensation committee. Our compensation policies are intended to provide for compensation that:

- is sufficient to attract and retain executives of outstanding ability and potential;
- is tailored to the unique characteristics and needs of our company;
- considers individual value and contribution to our success;
- is designed to motivate our executive officers to achieve our annual and long-term goals by rewarding performance based on the attainment of those goals;
- is designed to appropriately take into account risk and reward in the context of our business environment;
- reflects an appropriate relationship between executive compensation and the creation of shareholder value; and
- is sensitive to market benchmarks.

The compensation committee is in charge with recommending executive compensation packages to our board that meet these goals. In making decisions about executive compensation, the compensation committee relies on the experience of its members as well as subjective considerations of various factors, including individual and corporate performance, our strategic business goals, each executive’s position, experience, level of responsibility, and future potential, and compensation paid by companies of similar size in our industry. The compensation committee sets specific KPI’s or benchmarks for annual fixed compensation or for allocations between different elements of compensation.

Our compensation committee is charged with performing an annual review of our executive officers’ cash compensation and equity holdings to determine whether they provide adequate incentives and motivation to executive officers and whether they adequately compensate the executive officers relative to comparable officers in other companies. As part of this review, management submits recommendations to the compensation committee.

We believe it is important when making compensation-related decisions to be informed as to current practices of similarly situated publicly held companies in our industry. Our compensation committee stays apprised of the cash and equity compensation practices of publicly held companies in the glass and aluminum industries through the review of such companies’ public reports and through other resources. The companies chosen for inclusion in any benchmarking group would have business characteristics comparable to our company, including revenues, financial growth metrics, stage of development, employee headcount and market capitalization. While benchmarking may not always be appropriate as a stand-alone tool for setting compensation due to the aspects of our business and objectives, we generally believe that gathering this information is an important part of our compensation-related decision-making process.

Consideration of Shareholder Advisory Votes on Executive Compensation

We also take into consideration our most recent shareholder advisory vote (a “Say on Pay Advisory Vote”) on executive compensation, as required by Section 14A of the Securities Exchange Act of 1934. In the last advisory vote, conducted at our annual general meeting on December 15, 2022, our compensation program was approved on an advisory basis by over 97% of the shareholders who submitted a vote thereabout (with less than 3% of the votes being against approval or abstaining, collectively). We consider this to be a strong validation that our pay practices are firmly aligned with our shareholders’ best interests. In accordance with the shareholder vote held at our 2019 annual general meeting, we conduct a Say on Pay Advisory Vote every three years. The next will be at our 2025 annual general meeting.

Base Salaries

Each of our named executive officers is employed on an at-will basis. Base salaries for our executive officers are individually determined by our compensation committee each year to ensure that each executive's base salary forms part of a compensation package which appropriately rewards the executive for the value he or she brings to our company. Each executive's base salary may be increased or decreased in the discretion of the compensation committee in accordance with our compensation philosophy.

Bonuses

In addition to their base salaries, our named executive officers are entitled to receive annual performance bonuses based on the company's financial performance and achievement of certain targets throughout the year.

Other Compensation and Benefits

Named executive officers receive additional compensation in the form of vacation, medical, 401(k), and other benefits generally available to all of our employees. We do not provide any other perquisites or other personal benefits to our named executive officers.

Summary Compensation Table

The following table summarizes the total compensation for the years ended December 31, 2022, 2021 and 2020, of each of our named executive officers.

Name and principal position	Year	Salary	Bonus	Total (1)
Jose M. Daes (2) Chief Executive Officer	2022	\$ 2,100,000	\$ 735,000	\$ 2,835,000
	2021	\$ 1,512,000	\$ 453,600	\$ 1,965,600
	2020	\$ 1,260,000	\$ 315,000	\$ 1,575,000
Christian T. Daes (3) Chief Operating Officer	2022	\$ 2,100,000	\$ 735,000	\$ 2,835,000
	2021	\$ 1,512,000	\$ 453,600	\$ 1,965,600
	2020	\$ 1,260,000	\$ 315,000	\$ 1,575,000
Santiago Giraldo (4) Chief Financial Officer	2022	\$ 440,000	\$ 154,000	\$ 594,000
	2021	\$ 189,162	\$ 47,634	\$ 236,796
	2020	\$ 181,704	\$ 57,750	\$ 239,454

- (1) During the period covered by the table, we did not issue any stock awards, option awards, non-equity incentive plan compensation, or other compensation, nor did any of the named executive officers experience any change in pension value and nonqualified deferred compensation earnings.
- (2) Mr. Daes also serves as chief executive officer of ES.
- (3) Mr. Daes also serves as chief executive officer of TG.
- (4) Mr. Giraldo's 2021 and 2020 salary was paid in Colombian pesos.

Compensation Arrangements with Named Executive Officers

On February 7, 2023, our compensation committee recommended, and on February 28, 2023 our Board approved, the following compensation arrangements for 2023 for each of Messrs. Daes, Daes, and Giraldo: (i) with respect to each of Messrs. Daes and Daes, a base salary of \$2,940,000 plus a bonus of up to \$1,029,000; and (ii) with respect to Mr. Giraldo, a base salary of \$594,000 and a performance bonus of up to \$207,900 per year. Each of the bonuses will be based on our 2023 financial performance and achievement of certain to-be-agreed upon targets throughout the year.

Pay Ratio Disclosures

The following pay ratio information is provided in accordance with the requirements of Item 402(u) of Regulation S-K of the Exchange Act.

For fiscal 2022, the Company's last completed fiscal year:

- the median of the annual total compensation of all employees of the Company (other than the Chief Executive Officer) was \$4,159; and
- the annual total compensation of the Company's Chief Executive Officer, Jose M. Daes, was \$2,835,000.

Based on this information, the ratio for 2022 of the annual total compensation of the Chief Executive Officer to the median of the annual total compensation of all employees is 682 to 1.

The following steps were taken to determine the annual total compensation of the median employee and the Chief Executive Officer:

- As of December 31, 2022, the employee population consisted of approximately 8,770 individuals, including full time, part time, temporary, and seasonal employees employed on that date. This date was selected because it aligned with calendar year end and allowed identification of employees in a reasonably efficient manner.
- For purposes of identifying the median employee from our employee population base, wages from our internal payroll records for the twelve-month period ended December 31, 2022 were used. These wages were consistent with amounts reported to taxation authorities for fiscal 2022. Consistent

with the calculation of the Chief Executive Officer's annual compensation, other elements of employee compensation were considered and added, if applicable when calculating the annual total compensation for all employees.

- In addition, the compensation of approximately 3,214 full time or part time employees who were hired during 2022 and employed on December 31, 2022, was annualized. No full-time equivalent adjustments were made for part time employees, of which there were approximately 17.
- The median employee was identified using this compensation measure and methodology, which was consistently applied to all employees. The amounts reported in the 2022 Summary Compensation Table for named executive officers was used for the total annual compensation of the Chief Executive Officer. The salary amount reported in this table was annualized to reflect a full year's compensation for the purpose of calculating the pay ratio disclosure.

Outstanding Equity Awards at Fiscal Year End

As of December 31, 2022, we had not granted any share options, share appreciation rights or any other awards under long-term incentive plans to any of our executive officers.

Pension Benefits

As of December 31, 2022, we had not granted any pension benefits to any of our executive officers.

Nonqualified Defined Contribution and Other Nonqualified Deferred Compensation Plans

As of December 31, 2022, we did not have any nonqualified defined contribution or other nonqualified deferred compensation plans.

Potential Payments Upon Termination or Change-in-Control

As of December 31, 2022, none of our executive officers are entitled to payments or the provision of other benefits such as perquisites and health care benefits in connection with a termination or change-in-control.

Director Compensation

Each of our non-employee directors receives cash compensation of \$63,063 each year. Additionally, our chairman of the Audit Committee and each other member of our Audit Committee receives additional cash compensation of \$22,051 and \$11,007, respectively, for serving on our Audit Committee. Non-employee directors do not receive cash compensation for their service.

The following table summarizes the compensation of our non-employee directors for the year ended December 31, 2022.

Name	Fees earned or paid in cash	Stock Awards	Total
Carlos Cure	\$ 85,114	-	\$ 85,114
Luis Fernando Castro Vergara	\$ 74,070	-	\$ 74,070
Julio A. Torres	\$ 74,040	-	\$ 74,040
A. Lorne Weil	\$ 63,063	-	\$ 63,063
Anne Louise Carricarte	\$ 31,531	-	\$ 31,531
Martha Byorum	\$ 63,063	-	\$ 63,063

(1) To date, we have not compensated our directors with stock awards, option awards, non-equity incentive plan compensation, pension value, nonqualified deferred compensation earnings or other compensation.

(2) Ms. Byorum resigned from the Board of Directors on August 23, 2022.

Compensation Committee Interlocks and Insider Participation

No person who served as a member of the compensation committee of our board of directors during the last completed fiscal year, indicating each committee member (a) was, during the fiscal year, an officer or employee of ours; (b) was formerly an officer of the registrant; or (c) had any relationship requiring disclosure by us under any paragraph of Item 404 of Regulation S-K. We do not have any of the relationships described in Item 407(e)(4)(iii) that would require disclosure by us pursuant thereto.

Compensation Committee Report

The compensation committee met with our management to review and discuss the preceding Compensation Discussion and Analysis. Based on such review and discussion, the compensation committee approved this Compensation Discussion and Analysis and authorized and recommended its inclusion in this Annual Report on Form 10-K.

Compensation Committee

Julio Torres, Chairperson
Luis Fernando Castro Vergara
Ann Louise Carricarte

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The table and accompanying footnotes set forth certain information based on public filings or information known to Tecnoglass as of December 31, 2022, with respect to the ownership of our ordinary shares by:

- each person or group who beneficially owns more than 5% of our ordinary shares;
- each of our executive officers and directors; and

- all of our directors and executive officers as a group.

A person is deemed to be the “beneficial owner” of a security if that person has or shares “voting power,” which includes the power to vote or to direct the voting of such security, or “investment power,” which includes the power to dispose of or to direct the disposition of such security.

Name and Address of Beneficial Owner ⁽¹⁾	Amount and Nature of Beneficial Ownership	Approximate Percentage of Beneficial Ownership
<i>Directors and Named Executive Officers</i>		
Jose M. Daes <i>Chief Executive Officer and Director</i>	275,810(2)	*
Christian T. Daes <i>Chief Operating Officer and Director</i>	204,632(2)	*
Santiago Giraldo <i>Chief Financial Officer</i>	-	*
Carlos Cure Cure <i>Director</i>	-	*
Luis F. Castro Vergara <i>Director</i>	-	*
A. Lorne Weil <i>Chairman of the Board</i>	88,173(3)	*
Julio A. Torres <i>Director</i>	30,520	*
Anne Louise Carricarte <i>Director</i>	-	*
All directors and executive officers as a group (8 persons)	599,135	1.3%
<i>Five Percent Holders:</i>		
Energy Holding Corporation	26,408,696(4)	55.4%

* Less than 1%

- (1) Unless otherwise indicated, the business address of each of the individuals is Avenida Circunvalar a 100 mts de la Via 40, Barrio Las Flores, Barranquilla, Colombia.
- (2) Does not include shares held by Energy Holding Corporation, in which this person has an indirect ownership interest.
- (3) Does not include 253,000 ordinary shares held by Child’s Trust f/b/o Francesca Weil u/a dated March 4, 2010, and 253,000 ordinary shares held by Child’s Trust f/b/o Alexander Weil u/a dated March 4, 2010, irrevocable trusts established for the benefit of Mr. Weil’s children.
- (4) Joaquin Fernandez and Alberto Velilla Becerra are the directors of Energy Holding Corporation and may be deemed to share voting and dispositive power over such shares.

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column)
Equity compensation plans approved by security holders	—	—	1,593,917(1)
Equity compensation plans not approved by security holders	—	—	—
Total	—	—	1,593,917

(1) On December 20, 2013, our shareholders approved our 2013 Long-Term Equity Incentive Plan. Under this plan, 1,593,917 ordinary shares are reserved for issuance in accordance with the plan’s terms to eligible employees, officers, directors and consultants. As of December 31, 2022, no awards had been made under the 2013 Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Related Party Transactions

A Construir SA

On a recurring basis, we have engaged A Construir S.A., a heavy construction company operating in Barranquilla, Colombia, to carry out construction related to our ongoing capital expenditures at our production facilities in Colombia. Affiliates of Jose Daes and Christian Daes, the company's CEO and COO, respectively, had an ownership stake in A Construir through June 1, 2022. We purchased \$4,312 during the five months through May 31, 2022, and \$9,292, during the year ended December 31, 2021, respectively, from A Construir S.A. for construction and facilities which have been capitalized on the Company's balance sheet as property, plant and equipment. Given that A Construir is no longer considered a related party, amounts as of December 31, 2022, are not reflected as balances due from and due to related parties as of December 31, 2022, on the face of the Consolidated Balance Sheet nor the summary table in Item 7 above.

Alutrafic Led SAS

In the ordinary course of business, we sell products to Alutrafic Led SAS ("Alutrafic"), a fabricator of electrical lighting equipment. Affiliates of Jose Daes and Christian Daes, the Company's CEO and COO, respectively, have an ownership stake in Alutrafic. We sold \$0.9 million, \$1.1 million, and \$0.7 million, to Alutrafic during fiscal years 2022, 2021, and 2020, respectively, and had outstanding accounts receivable from Alutrafic for \$0.2 million and \$0.5 million as of December 31, 2022, and 2021, respectively.

Santa Maria del Mar SAS

In the ordinary course of business, we purchase fuel for use at our manufacturing facilities from Estación Santa Maria del Mar SAS, a gas station located near our manufacturing campus which is owned by affiliates of Jose Daes and Christian Daes, the Company's CEO and COO, respectively. During the years ended December 31, 2022, 2021, and 2020, we purchased \$0.9 million, \$0.3 million, and \$0.3 million, respectively. Additionally, during 2021 we acquired a lot of land adjacent to our manufacturing campus from Santa maria del Mar SAS for \$0.4 million.

Fundacion Tecnoglass-ESWindows

Fundacion Tecnoglass-ESWindows is a non-profit organization set up by the Company to carry out social causes in the communities around where we operate. During the years ended December 31, 2022, 2021, and 2020, we made charitable contributions for \$1.6 million, \$1.4 million, and \$1.3 million, respectively.

Studio Avanti SAS

In the ordinary course of business, we sell products to Studio Avanti SAS ("Avanti"), a distributor and installer of architectural systems in Colombia. Avanti is owned and controlled by Alberto Velilla, who is director of Energy Holding Corporation, the controlling shareholder of the Company. We sold \$0.5 million, \$0.8 million, and \$0.4 million, to Avanti during fiscal years 2022, 2021, and 2020, respectively, and had outstanding accounts receivable from Avanti for \$0.2 million and \$0.4 million as of December 31, 2022, and 2021, respectively.

Vidrio Andino Joint Venture (A Saint-Gobain subsidiary)

On May 3, 2019, we consummated a joint venture agreement with Saint-Gobain, a world leader in the production of float glass, a key component of our manufacturing process, whereby we acquired a 25.8% minority ownership interest in Vidrio Andino, a Colombia-based subsidiary of Saint-Gobain. The purchase price for our interest in Vidrio Andino was \$45 million, of which \$34.1 million was paid in cash and \$10.9 million paid through the contribution of land on December 9, 2020. On October 28, 2020, we acquired said land from affiliates of the CEO and COO's family and paid for it with the issuance of an aggregate of 1,557,142 ordinary shares of the Company, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price as of October 27, 2020.

The land will serve the purpose of developing a second float glass plant nearby our existing manufacturing facilities which we expect will carry significant efficiencies for us once it becomes operative, in which we will also have a 25.8% interest. The new plant will be funded with proceeds from the original cash contribution made by the Company, operating cash flows from the Bogota plant, debt incurred at the joint venture level that will not consolidate into the Company and an additional contribution by us of approximately \$12.5 million if needed (based on debt availability or other sources).

In the ordinary course of business, we purchased \$20.8 million, \$15.3 million, and \$14.3 million, from Vidrio Andino in 2022, 2021, and 2020, respectively. As of December 31, 2022, and 2021, we had outstanding payables to Vidrio Andino for \$4.9 million and \$2.8 million, respectively. We recorded equity method income of \$6.7 million, \$4.2 million, and \$1.4 million, on our Consolidated Statement of Operations during the years ended December 31, 2022, 2021, and 2020, respectively.

Zofracosta SA

Our subsidiary ES has an investment in Zofracosta SA, a real estate holding company and operator of a tax-free zone located in the vicinity of the proposed glass plant being built through our Vidrio Andino joint venture, valued at \$0.6 million and \$0.8 million as of December 31, 2022, and 2021, respectively. Affiliates of Jose Daes and Christian Daes, the Company's CEO and COO, respectively, have a majority ownership stake in Zofracosta SA.

Indemnification Agreements

Effective March 5, 2014, we entered into indemnification agreements with each of our executive officers and members of our board of directors. The indemnification agreements supplement our Third Amended and Restated Memorandum and Articles of Association and Cayman Islands law in providing certain indemnification rights to these individuals. The indemnification agreements provide, among other things that we will indemnify these individuals to the fullest extent permitted by Cayman Islands law and to any greater extent that Cayman Islands law may in the future permit, including the advancement of attorneys' fees and other expenses incurred by such individuals in connection with any threatened, pending or completed action, suit or other proceeding, whether of a civil, criminal, administrative, regulatory, legislative or investigative nature, relating to any occurrence or event before or after the date of the indemnification agreements, by reason of the fact that such individuals is or were our directors or executive officers, subject to certain exclusions and procedures set forth in the indemnification agreements, including the absence of fraud or willful default on the part of the indemnitee and, with respect to any criminal proceeding, that the indemnitee had no reasonable cause to believe his conduct was unlawful.

Related Person Policy

Our Code of Conduct requires us to avoid, wherever possible, all related party transactions that could result in actual or potential conflicts of interests, except under guidelines approved by the board of directors (or the audit committee). Related-party transactions are defined as transactions in which (1) the aggregate amount involved will or may be expected to exceed \$120,000 in any calendar year, (2) we or any of our subsidiaries are a participant, and (3) any (a) executive officer, director or nominee for election as a director, (b) greater than 5% beneficial owner of our ordinary shares, or (c) immediate family member, of the persons referred to in clauses (a) and (b), has or will have a direct or indirect material interest (other than solely as a result of being a director or a less than 10% beneficial owner of another entity). A conflict of interest situation can arise when a person takes actions or has interests that may make it difficult to perform his or her work objectively and effectively. Conflicts of interest may also arise if a person, or a member of his or her family, receives improper personal benefits as a result of his or her position.

Our audit committee, pursuant to its written charter, is responsible for reviewing and approving material or significant related-party transactions to the extent we enter into such transactions. The audit committee will consider all relevant factors when determining whether to approve a related party transaction, including whether the related party transaction is on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances and the extent of the related party's interest in the transaction. No director may participate in the approval of any transaction in which he is a related party, but that director is required to provide the audit committee with all material information concerning the transaction. Additionally, we require each of our directors and executive officers to complete an annual directors' and officers' questionnaire that elicits information about related party transactions.

These procedures are intended to determine whether any such related party transaction impairs the independence of a director or presents a conflict of interest on the part of a director, employee or officer.

Director Independence

We adhere to the NYSE listing standards in determining whether a director is independent. Our board of directors consults with its counsel to ensure that the board's determinations are consistent with those rules and all relevant securities and other laws and regulations regarding the independence of directors.

The NYSE listing standards define an "independent director" as a person, other than an executive officer of a company or any other individual having a relationship which, in the opinion of the issuer's board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Consistent with these considerations, we have affirmatively determined that Messrs. Weil, Cure Cure, Castro Vergara, Torres and Ms. Carricarte qualify as independent directors. Our independent directors have regularly scheduled meetings at which only independent directors are present.

Item 14. Principal Accounting Fees and Services .

The following fees were paid to PwC for services rendered in years ended December 31, 2022, and 2021:

	Year Ended December 31,	
	2022	2021
Audit Fees ⁽¹⁾	\$ 692,754	\$ 669,158
Audit-Related Fees ⁽²⁾	376	105,300
All Other Fees ⁽³⁾	2,900	2,900
Total Fees	<u>\$ 696,030</u>	<u>\$ 777,358</u>

(1) Audit fees consist of fees paid for professional services by PwC for audit and quarterly review of the Company's consolidated financial statements during the years ended December 31, 2022, and 2021, and related services normally provided in connection with statutory and regulatory filings or engagements.

(2) Audit-related fees represent the aggregate fees billed for assurance and related professional services rendered by PwC that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported under "Audit Fees".

(3) Other fees represent fees billed for professional services rendered by PwC in connection with subscription to information services and training. The Company was not billed for any fees billed in either of the last two fiscal years for professional services rendered by PwC for tax compliance, tax advice, and tax planning. Such "Tax Fees" would have been reported in the table above if any.

Pre-Approval Policies and Procedures. In accordance with Section 10A(i) of the Securities Exchange Act of 1934, as amended, before we engage our independent registered public accounting firm to render audit or non-audit services, the engagement is approved by our audit committee. Our audit committee approved all of the fees referred to in the rows titled "Audit Fees," "Audit-Related Fees," and "All Other Fees" in the table above.

Representatives of PwC are expected to attend the annual general meeting. The representatives will have an opportunity to make any statements and will be available to respond to appropriate questions from shareholders.

Audit Committee Approval

Our audit committee pre-approved all the services performed by PwC Contadores y Auditores S.A.S. In accordance with Section 10A(i) of the Securities Exchange Act of 1934, before we engage our independent accountant to render audit or non-audit services on a going-forward basis, the engagement will be approved by our audit committee.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Form 10-K:

(1) Consolidated Financial Statements:

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(2) Financial Statement Schedules:

None.

(3) The following exhibits are filed as part of this Form 10-K

Exhibit No.	Description	Included	Form	Filing Date
3.1	Third Amended and Restated Memorandum and Articles of Association.	By Reference	Schedule 14A	December 4, 2013
4.1	Specimen Ordinary Share Certificate.	By Reference	S-1/A	January 23, 2012
4.2	Specimen Warrant Certificate.	By Reference	S-1/A	December 28, 2011
4.3	Warrant Agreement between Continental Stock Transfer & Trust Company and the Company.	By Reference	8-K	March 22, 2012
4.4	Description of the Company's Securities	By Reference	10-K	March 8, 2021
10.1	Amended and Restated Registration Rights Agreement among the Company, the Initial Shareholders and Energy Holding Corporation.	By Reference	8-K	December 27, 2013
10.2	2013 Long-Term Incentive Equity Plan	By Reference	Schedule 14A	December 4, 2013
10.3	Form of Indemnification Agreement	By Reference	8-K	March 5, 2014
10.4	Settlement Agreement, dated June 30, 2018, between the Company and Giovanni Monti	By Reference	Form 10-K	March 8, 2019
10.5	Investment Agreement dated January 11, 2019, by and among Tecnoglass Inc., Holding Concorde S.A.S., Saint-Gobain Colombia S.A.S., Saint-Gobain Cristaleria S.L., and Pilkington International Holdings B.V.	By Reference	8-K	January 11, 2019
21	List of subsidiaries.	Herewith		
24	Power of Attorney (included on signature page of this Form 10-K).	Herewith		
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Herewith		
31.2	Certification of Principal Financial and Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Herewith		
32	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Herewith		
101.INS	Inline XBRL Instance Document	Herewith		
101.SCH	Inline XBRL Taxonomy Extension Schema Document	Herewith		
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	Herewith		
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	Herewith		
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	Herewith		
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	Herewith		
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)	Herewith		

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of the Section 13 or 15 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on the 7th day of March, 2023.

TECNOGLASS INC.

By: /s/ Santiago Giraldo
Name: Santiago Giraldo
Title: Chief Financial Officer (Principal
Financial and Accounting Officer)

POWER OF ATTORNEY

The undersigned directors and officers of Tecnoglass Inc. hereby constitute and appoint Jose Daes and Santiago Giraldo with full power to act as our true and lawful attorney-in-fact with full power to execute in our name and behalf in the capacities indicated below, this annual report on Form 10-K and any and all amendments thereto and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, and hereby ratify and confirm all that such attorneys-in-fact, or any of them, or their substitutes shall lawfully do or cause to be done by virtue hereof.

In accordance with the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jose M. Daes</u> Jose M. Daes	Chief Executive Officer (Principal Executive Officer)	March 7, 2023
<u>/s/ Christian T. Daes</u> Christian T. Daes	Chief Operating Officer	March 7, 2023
<u>/s/ Santiago Giraldo</u> Santiago Giraldo	Chief Financial Officer (Principal Financial and Accounting Officer)	March 7, 2023
<u>/s/ A. Lorne Weil</u> A. Lorne Weil	Director (Non-Executive Chairman)	March 7, 2023
<u>/s/ Carlos A. Cure</u> Carlos A. Cure	Director	March 7, 2023
<u>/s/ Luis Fernando Castro</u> Luis Fernando Castro	Director	March 7, 2023
<u>/s/ Anne Louise Carricarte</u> Anne Louise Carricarte	Director	March 7, 2023
<u>/s/ Julio A. Torres</u> Julio A. Torres	Director	March 7, 2023

Tecnoglass Inc.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Tecnoglass Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Tecnoglass Inc. and its subsidiaries (the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive income, shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above 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 three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. 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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition - Estimated Costs to Complete Fixed Price Contracts

As discussed in Notes 2 and 6 to the consolidated financial statements, \$98.3 million of the Company's total revenues for the year ended December 31, 2022 was generated from fixed price contracts. For the Company's fixed price contracts, revenues are recognized using the cost-to-cost method, measured by the percentage of costs incurred to date to total estimated costs for each contract. As disclosed by management, the Company generally uses the cost-to-cost method to measure progress for its contracts, which occurs as the Company incurs costs on the contracts. Under the cost-to-cost method, sales are generally recorded at amounts equal to the ratio of actual cumulative costs incurred divided by total estimated costs at completion, multiplied by (i) the transaction price, less (ii) the cumulative sales recognized in prior periods. Due to the nature of the work required to be performed, management's estimation of costs at completion is complex and requires significant judgment based on reasonable estimations. Management has disclosed that there are various factors that can affect the accuracy of cost estimates, including, but not limited to the ability to properly allocate indirect labor and indirect material costs to each project, such estimates are made based on the most updated historical information and margins of those indirect costs over the associated revenues and on all relevant information associated with each specific project at any point in time.

The principal considerations for our determination that performing procedures relating to revenue recognition - estimated costs to complete fixed price contracts is a critical audit matter are the significant judgments made by management when determining the estimated costs to complete fixed price contracts, which in turn led to significant auditor judgment and effort in performing procedures and in evaluating the estimates of the costs to complete related to the assessment of management's judgment about the Company's ability to allocate indirect labor and indirect material costs to each project of actual incurred costs to date on the contract.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the determination of estimated costs to complete fixed price contracts and controls over management's review and approval of the actual indirect labor and indirect material costs allocated to the project and testing management's process for reviewing and approving the costs of the contract. The procedures also included, among others, evaluating and testing management's process for determining the estimate of costs at completion for a sample of contracts, which included evaluating the reasonableness of the allocation of indirect labor and indirect material costs to each project and considering the factors that can affect the accuracy of these estimates. Evaluating the reasonableness of the allocation of indirect labor and indirect material costs to each project involved assessing management's ability to reasonably estimate costs to complete fixed price contracts by (i) performing a comparison of the originally estimated and actual costs incurred on similar completed contracts; and (ii) evaluating the timely identification of circumstances that may warrant a modification to estimated costs to complete, including actual costs in excess of estimates.

/s/ PwC Contadores y Auditores S. A. S.

PwC Contadores y Auditores S. A. S.
Barranquilla, Colombia
March 7, 2023

We have served as the Company's auditor since 2014.

Tecnoglass Inc. and Subsidiaries
Consolidated Balance Sheets
(In thousands, except share and per share data)

ASSETS	December 31, 2022	December 31, 2021
Current assets:		
Cash and cash equivalents	\$ 103,671	\$ 85,011
Investments	2,049	1,977
Trade accounts receivable, net	158,397	110,539
Due from related parties	1,447	2,252
Inventories	124,997	84,975
Contract assets – current portion	12,610	18,667
Other current assets	28,963	22,854
Total current assets	\$ 432,134	\$ 326,275
Long-term assets:		
Property, plant and equipment, net	\$ 202,865	\$ 166,629
Deferred income taxes	558	596
Contract assets – non-current	8,875	11,853
Long-term trade accounts receivable	1,225	3,995
Intangible assets	2,706	3,337
Goodwill	23,561	23,561
Equity method investment	57,839	51,160
Other long-term assets	4,545	4,157
Total long-term assets	\$ 302,174	\$ 265,288
Total assets	\$ 734,308	\$ 591,563
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt and current portion of long-term debt	\$ 504	\$ 10,700
Trade accounts payable and accrued expenses	90,186	68,087
Due to related parties	5,323	3,857
Dividends payable	3,622	3,141
Contract liability – current portion	49,601	45,213
Other current liabilities	60,566	24,017
Total current liabilities	\$ 209,802	\$ 155,015
Long-term liabilities:		
Deferred income taxes	\$ 5,190	\$ 3,417
Contract liability – non-current	11	78
Long-term debt	168,980	188,355
Total long-term liabilities	\$ 174,181	\$ 191,850
Total liabilities	\$ 383,983	\$ 346,865
SHAREHOLDERS' EQUITY		
Preferred shares, \$0.0001 par value, 1,000,000 shares authorized, 0 shares issued and outstanding at December 31, 2022 and December 31, 2021 respectively	\$ -	\$ -
Ordinary shares, \$0.0001 par value, 100,000,000 shares authorized, 47,674,773 and 46,674,773 shares issued and outstanding at December 31, 2022 and December 31, 2021, respectively	5	5
Legal Reserves	1,458	2,273
Additional paid-in capital	219,290	219,290
Retained earnings	234,254	91,045
Accumulated other comprehensive (loss)	(106,187)	(68,751)
Shareholders' equity attributable to controlling interest	\$ 348,820	\$ 243,862
Shareholders' equity attributable to non-controlling interest	\$ 1,505	\$ 836
Total shareholders' equity	\$ 350,325	\$ 244,698
Total liabilities and shareholders' equity	\$ 734,308	\$ 591,563

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

Tecnoglass Inc. and Subsidiaries
Consolidated Statements of Operations and Comprehensive Income
(In thousands, except share and per share data)

	Twelve months ended		
	December 31,		
	2022	2021	2020
Operating revenues:			
External customers	\$ 714,735	\$ 494,665	\$ 375,058
Related parties	1,835	2,120	1,549
Total operating revenues	<u>716,570</u>	<u>496,785</u>	<u>376,607</u>
Cost of sales	<u>367,071</u>	<u>294,201</u>	<u>237,166</u>
Gross profit	349,499	202,584	139,441
Operating expenses:			
Selling expense	(69,006)	(49,768)	(39,065)
General and administrative expense	<u>(54,078)</u>	<u>(35,831)</u>	<u>(34,669)</u>
Total operating expenses	<u>(123,084)</u>	<u>(85,599)</u>	<u>(73,734)</u>
Operating income	226,415	116,985	65,707
Non-operating income, net	4,218	608	89
Equity method income	6,680	4,177	1,387
Foreign currency transactions gains (losses)	2,013	(4,308)	(8,638)
Interest expense and deferred cost of financing	(8,156)	(9,850)	(21,671)
Extinguishment of Debt	-	(10,699)	-
Income before taxes	<u>231,170</u>	<u>96,913</u>	<u>36,874</u>
Income tax provision	<u>(74,758)</u>	<u>(28,485)</u>	<u>(13,033)</u>
Net income	\$ 156,412	\$ 68,428	\$ 23,841
(Income) loss attributable to non-controlling interest	(669)	(277)	34
Income attributable to parent	\$ 155,743	\$ 68,151	\$ 23,875
Comprehensive income:			
Net income	\$ 156,412	\$ 68,428	\$ 23,841
Foreign currency translation adjustments	(46,623)	(25,080)	(3,898)
Change in fair value derivative contracts	9,187	(159)	(350)
Total comprehensive income	\$ 118,976	\$ 43,189	\$ 19,593
Comprehensive (income) loss attributable to non-controlling interest	(669)	(277)	34
Total comprehensive income attributable to parent	\$ 118,307	\$ 42,912	\$ 19,627
Basic income per share	<u>\$ 3.28</u>	<u>\$ 1.44</u>	<u>\$ 0.51</u>
Diluted income per share	<u>\$ 3.28</u>	<u>\$ 1.44</u>	<u>\$ 0.51</u>
Basic weighted average common shares outstanding	<u>47,674,773</u>	<u>47,674,773</u>	<u>46,398,428</u>
Diluted weighted average common shares outstanding	<u>47,674,773</u>	<u>47,674,773</u>	<u>46,398,428</u>

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

Tecnoglass, Inc. and Subsidiaries
Consolidated Statements of Shareholders' Equity
For the Years Ended December 31, 2022, 2021, and 2020
(In thousands, except share data)

	Ordinary Shares, \$0.0001 Par Value		Additional Paid in Capital	Legal Reserve	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity	Non- Controlling Interest	Total Shareholders' Equity and Non- Controlling Interest
	Shares	Amount							
Balance at December 31, 2019	<u>46,117,631</u>	<u>5</u>	<u>208,283</u>	<u>1,367</u>	<u>12,148</u>	<u>(39,264)</u>	<u>182,539</u>	<u>594</u>	<u>183,133</u>
Issuance of common stock	1,557,142	-	10,900	-	-	-	10,900	-	10,900
Dividend	-	-	107	-	(5,191)	-	(5,084)	-	(5,084)
Legal Reserves	-	-	-	906	(906)	-	-	-	-
Derivative financial instruments	-	-	-	-	-	(350)	(350)	-	(350)
Foreign currency translation	-	-	-	-	-	(3,898)	(3,898)	-	(3,898)
Net income	-	-	-	-	23,875	-	23,875	(34)	23,841
Balance at Diciembre 31, 2020	<u>47,674,773</u>	<u>5</u>	<u>219,290</u>	<u>2,273</u>	<u>29,926</u>	<u>(43,512)</u>	<u>207,981</u>	<u>560</u>	<u>208,541</u>
Issuance of common stock	-	-	-	-	-	-	-	-	-
Dividend	-	-	-	-	(7,032)	-	(7,032)	-	(7,032)
Legal reserve	-	-	-	-	-	-	-	-	-
Derivative financial instruments	-	-	-	-	-	(159)	(159)	-	(159)
Foreign currency translation	-	-	-	-	-	(25,080)	(25,080)	-	(25,080)
Net income	-	-	-	-	68,151	-	68,151	277	68,428
Balance at December 31, 2021	<u>47,674,773</u>	<u>5</u>	<u>219,290</u>	<u>2,273</u>	<u>91,045</u>	<u>(68,751)</u>	<u>243,862</u>	<u>836</u>	<u>244,698</u>
Issuance of common stock	-	-	-	-	-	-	-	-	-
Dividend	-	-	-	-	(13,349)	-	(13,349)	-	(13,349)
Legal reserve	-	-	-	(815)	815	-	-	-	-
Derivative financial instruments	-	-	-	-	-	9,187	9,187	-	9,187
Foreign currency translation	-	-	-	-	-	(46,623)	(46,623)	-	(46,623)
Net income	-	-	-	-	155,743	-	155,743	669	156,412
Balance at December 31, 2022	<u>47,674,773</u>	<u>5</u>	<u>219,290</u>	<u>1,458</u>	<u>234,254</u>	<u>(106,187)</u>	<u>348,820</u>	<u>1,505</u>	<u>350,325</u>

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

Tecnoglass Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	Year ended December 31,		
	2022	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 156,412	\$ 68,428	\$ 23,841
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for bad debts	643	1,599	1,196
Provision for obsolete inventory	19	53	143
Depreciation and amortization	19,686	20,923	20,623
Deferred income taxes	5,484	4,400	6,581
Equity method income	(6,680)	(4,177)	(1,387)
Deferred cost of financing	1,370	1,368	972
Other non-cash adjustments	(36)	(91)	(128)
Loss on debt extinguishment	-	2,333	-
Unrealized currency translation losses	15,385	14,175	7,930
Changes in operating assets and liabilities:			
Trade accounts receivable	(54,179)	(38,515)	5,827
Inventories	(63,937)	(16,747)	(1,675)
Prepaid expenses	(2,405)	(3,293)	(1,397)
Other assets	(483)	(14,877)	13,377
Other liabilities	(1,862)	(435)	1,641
Trade accounts payable and accrued expenses	7,220	38,001	(22,409)
Accrued interest expense	(1)	(7,173)	(417)
Taxes payable	45,250	16,125	(6,566)
Labor liabilities	927	357	115
Contract assets and liabilities	16,174	28,593	22,815
Related parties	2,933	6,206	629
CASH PROVIDED BY OPERATING ACTIVITIES	\$ 141,920	\$ 117,253	\$ 71,711
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of investments	-	685	471
Proceeds from sale of property and equipment	-	130	6
Purchase of investments	(1,257)	(63)	(265)
Acquisition of property and equipment	(71,327)	(51,513)	(18,323)
CASH USED IN INVESTING ACTIVITIES	\$ (72,584)	\$ (50,761)	\$ (18,111)
CASH FLOWS FROM FINANCING ACTIVITIES			
Cash dividend	(12,869)	(5,243)	(3,801)
Loss on debt extinguishment – call premium	-	(8,610)	-
Proceeds from debt	49	221,350	41,343
Debt discount and issuance costs	-	(1,489)	(6,384)
Repayments of debt	(31,981)	(249,797)	(64,694)
CASH USED IN FINANCING ACTIVITIES	\$ (44,801)	\$ (43,789)	\$ (33,536)
Effect of exchange rate changes on cash and cash equivalents	\$ (5,875)	\$ (5,360)	\$ (795)
NET INCREASE IN CASH	18,660	17,343	19,269
CASH – Beginning of period	85,011	67,668	48,399
CASH – End of period	\$ 103,671	\$ 85,011	\$ 67,668
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid during the period for:			
Interest	\$ 6,421	\$ 15,531	\$ 19,168
Income Tax	\$ 27,191	\$ 13,399	\$ 10,863
NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Assets acquired under credit or debt	\$ 11,800	\$ 1,859	\$ 2,242

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

Tecnoglass Inc. and Subsidiaries
Notes to Consolidated Financial Statements
(Amounts in thousands, except share and per share data)

Note 1. General

Business Description

Tecnoglass Inc., a Cayman Islands exempted company (the “Company”, “Tecnoglass,” “TGI,” “we, “us” or “our”) manufactures hi-specification, architectural glass and windows for the global residential and commercial construction industries. Currently the Company offers design, production, marketing, and installation of architectural systems for buildings of high, medium and low elevation size. Products include windows and doors in glass and aluminum, office partitions and interior divisions, floating facades and commercial window showcases. The Company sells to customers in North, Central and South America, and exports more than 90% of its production to foreign countries.

The Company manufactures both glass and aluminum products. Its glass products include tempered glass, laminated glass, thermo-acoustic glass, curved glass, silk-screened glass, acoustic glass and digital print glass. Its Alutions plant produces mill finished, anodized, painted aluminum profiles and rods, tubes, bars and plates. Alutions’ operations include extrusion, smelting, painting and anodizing processes, and exporting, importing and marketing aluminum products.

The Company also designs, manufactures, markets and installs architectural systems for high, medium and low-rise construction, glass and aluminum windows and doors, office dividers and interiors, floating facades and commercial display windows.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Management’s Estimates

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”) and pursuant to the accounting and disclosure rules and regulations of the Securities and Exchange Commission (“SEC”).

The preparation of the accompanying consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities at the date of the Company’s financial statements. Actual results may differ from these estimates under different assumptions and conditions. Estimates inherent in the preparation of these consolidated financial statements relate to the collectability of account receivables, the valuation of inventories, estimated earnings on uncompleted contracts, income taxes, useful lives and potential impairment of long-lived assets.

Principles of Consolidation

These audited consolidated financial statements consolidate TGI, its subsidiaries Tecnoglass S.A.S (“TG”), C.I. Energía Solar S.A.S E.S. Windows (“ES”), ES Windows LLC (“ESW LLC”), Tecnoglass LLC (“Tecno LLC”), Tecno RE LLC (“Tecno RE”), GM&P Consulting and Glazing Contractors (“GM&P”), Componenti USA LLC, ES Metals SAS (“ES Metals”), and Ventanas Solar S.A (“VS”), which are entities in which we have a controlling financial interest because we hold a majority voting interest. To determine if we hold a controlling financial interest in an entity, we first evaluate if we are required to apply the variable interest entity (“VIE”) model to the entity, otherwise the entity is evaluated under the voting interest model. All significant intercompany accounts and transactions are eliminated in consolidation, including unrealized intercompany profits and losses. The equity method of accounting is used for investments in affiliates and other joint ventures over which the Company has significant influence but does not have effective control.

Non-controlling interest

When the Company owns a majority of a subsidiary’s stock, the Company includes in its consolidated financial statements the non-controlling interest in the subsidiary. The non-controlling interest in the Consolidated Statements of Operations and Other Comprehensive Income is equal to the non-controlling proportionate share of the subsidiary’s net income and, as included in Shareholders’ Equity on the Consolidated Balance Sheet, is equal to the non-controlling proportionate share of the subsidiary’s net assets.

Foreign Currency Translation and Transactions

The consolidated financial statements are presented in U.S. Dollars, the reporting currency. Our foreign subsidiaries’ local currency is the Colombian Peso, which is also their functional currency as determined by the market analysis, costs and expenses, assets, liabilities, financing and cash flow indicators. As such, our subsidiaries’ assets and liabilities are translated at the exchange rate in effect at the balance sheet date, with equity being translated at the historical rates. Revenues and expenses of our foreign subsidiaries are translated at the average exchange rates for the period. The resulting cumulative foreign currency translation adjustments from this process are included as a component of accumulated other comprehensive income (loss). Therefore, the U.S. Dollar value of these items in our financial statements fluctuates from period to period.

Cash and Cash Equivalents

Cash and cash equivalents include investments with original maturities of three months or less. As of December 31, 2022, and 2021, cash and cash equivalents were primarily comprised of deposits held in operating accounts in the United States, and to a lesser amount, Colombia, and Panama. As of December 31, 2022, and 2021 the Company had no restricted cash.

Investments

The Company's investments are comprised of securities available for sale, short term deposits and income producing real estate.

We have investments in long-term marketable equity securities which are classified as available-for-sale securities and are recorded at fair value.

Short- term deposits and other financial instruments with maturities greater than 90 days and shares in other companies that do not meet the requirements for equity method treatment are recorded for at cost.

Trade Accounts Receivable

Trade accounts receivable are recorded net of allowances for cash discounts for prompt payment, doubtful accounts and sales returns. The Company's policy is to reserve for uncollectible accounts based on its best estimate of the amount of expected credit losses in its existing accounts receivable. The Company periodically reviews its accounts receivable to determine whether an allowance for doubtful accounts is necessary based on an analysis of current credit losses and other factors that may indicate that the collectability of an account may be in doubt. Other factors that the Company considers include its existing contractual obligations, historical payment patterns of its customers and individual customer circumstances, and a review of the local economic environment and its potential impact on the collectability of accounts receivable. Account balances are deemed to be uncollectible and are charged off within 90 days of having recorded an allowance and all means of collection have been exhausted and the potential for recovery is considered remote.

On certain fixed price contracts, a portion of the amounts billed are withheld by the customer as a retainage which typically amount to 10% of the invoiced amount and can remain outstanding for several months until a final good receipt of the complete project to the customers satisfaction.

Concentration of Risks and Uncertainties

Financial instruments which potentially subject the Company to credit risk consist primarily of cash and trade accounts receivable. The Company mitigates its cash risk by maintaining its cash deposits with major financial institutions in the United States and Colombia. As discussed above, the Company mitigates its risk to trade accounts receivable by performing on-going credit evaluations of its customers.

Inventories

Inventories of raw materials, which consist primarily of purchased and processed glass, aluminum, parts and supplies held for use in the ordinary course of business, are valued at the lower of cost or net realizable value. Cost is determined using a weighted-average method. Inventory consisting of certain job specific materials not yet finished (work in process) are valued using the specific identification method. Cost for finished product inventory are recorded and maintained at the lower of cost or net realizable value. Cost includes raw materials and direct and applicable indirect manufacturing overheads.

Reserves for excess or slow-moving raw materials inventories are updated based on historical experience of a variety of factors including sales volume and levels of inventories at the end of the period. The Company does not maintain allowances for the lower of cost or market for inventories of finished products as its products are manufactured based on firm orders rather than built-to-stock.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Significant improvements and renewals that extend the useful life of the asset are capitalized. Interest caused while acquired property is under construction and installation are capitalized. Repairs and maintenance are charged to expense as incurred. When property is retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any related gains or losses are included in income as a reduction to or increase in selling, general and administrative expenses. Depreciation is computed on a straight-line basis, based on the following estimated useful lives:

Buildings	20 years
Aircraft	20 years
Machinery and equipment	10 years
Furniture and fixtures	10 years
Office equipment and software	5 years
Vehicles	5 years

The Company also records within property, plant and equipment all the underlying assets of a finance lease. Initial recognition of these assets is done at the present value of all future lease payments. A capital lease is a lease in which the lessor transferred substantially all the benefits and risks associated with the ownership of the property.

Long Lived Assets

The Company periodically reviews the carrying values of its long lived assets when events or changes in circumstances would indicate that it is more likely than not that their carrying values may exceed their realizable values, and record impairment charges when considered necessary.

When circumstances indicate that an impairment may have occurred, the Company tests such assets for recoverability by comparing the estimated undiscounted future cash flows expected to result from the use of such assets and their eventual disposition to their carrying amounts. If the undiscounted future cash flows are less than the carrying amount of the asset, an impairment loss, measured as the excess of the carrying value of the asset over its estimated fair value, is recognized. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Goodwill

We review goodwill for impairment each year on December 31st or more frequently when events or significant changes in circumstances indicate that the carrying value may not be recoverable. The outbreak of COVID-19 and its associated economic impact, including a significant decrease in the market price of our ordinary shares, was considered a triggering event as of the first quarter of 2020, requiring us to reassess our goodwill and long-lived asset valuations, as well as assumptions of future income from underlying assets. At the time we did not record any impairment of goodwill or long-lived assets.

Under ASC 350-20-35-4 through 35-8A, the goodwill impairment test requires a comparison of the fair value of the reporting unit with its carrying amount, including goodwill. If the carrying amount of the reporting unit is greater than zero and its fair value exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. The Company has only one reporting unit and as such the impairment analysis was done by comparing the Company's market capitalization with its book value of equity. As of December 31, 2022, the Company's market capitalization substantially exceeded its book value of equity and as such no impairment of goodwill was indicated. See Note 11- Goodwill and Intangible Assets for additional information.

Intangible Assets

Intangible assets with definite lives subject to amortization are amortized on a straight-line basis. We also review these intangibles for impairment when events or significant changes in circumstance indicate that the carrying value may not be recoverable. Events or circumstances that indicate that impairment testing may be required include changes in building codes and regulation, loss of key personnel or a significant adverse change in business climate or regulations. There were no triggering events or circumstances noted and as such no impairment was needed for the intangible assets subject to amortization. See Note 11 – Goodwill and Intangible Assets for additional information.

Leases

We determine if an arrangement is a lease at inception. We include finance lease right-of-use assets as part of property and equipment and the lease liability as part of our current portion of long-term debt and long-term debt on our Consolidated Balance Sheet. Leases considered short-term are not capitalized, given our election not to recognize right-of-use assets and lease liabilities arising from short-term leases , but instead considered operating leases and the resulting rental expense is recognized on our Consolidated Statement of Operations as incurred.

Finance lease right-of-use assets and lease liabilities are recognized based on the present value of the future lease payments over the lease term at commencement date. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of future payments. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option.

Financial Liabilities

Financial liabilities correspond to the financing obtained by the Company through bank credit facilities and accounts payable to suppliers and creditors. Financial liabilities are initially recognized based on their fair value, which is usually equal to the transaction value less directly attributable costs. Subsequently, such financial liabilities are carried at their amortized cost according to the effective interest rate method determined at initial recognition and recognized in the results of the period during the time of amortization of the financial obligation.

Fair Value of Financial Instruments

ASC 820, *Fair Value Measurements*, establishes a fair value hierarchy which requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. We primarily apply the market approach for financial assets and liabilities measured at fair value on a recurring basis. Fair value is the price we would receive to sell an asset or pay to transfer a liability in an orderly transaction with a market participant at the measurement date. In the absence of active markets for identical assets or liabilities, such measurements involve developing assumptions based on market observable data and, in the absence of such data, internal information that is consistent with what market participants would use in a hypothetical transaction that occurs at the measurement date.

The standard describes three level of inputs that may be used to measure fair value:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable by observable market data for substantially the full term of the assets or liabilities.

Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

See Note 15 – Hedging Activities and Fair Value Measurements.

Derivative Financial Instruments

The Company recognizes all derivative financial instruments as either assets or liabilities at fair value on the consolidated balance sheet. The unrealized gains or losses arising from changes in fair value of derivative instruments that are designated and qualify as cash flow hedges, are recorded in the consolidated statement of comprehensive income. Amounts in Accumulated other comprehensive loss on the consolidated balance sheet are reclassified into the consolidated statement of income in the same period or periods during which the hedged transactions are settled.

Revenue Recognition

Our principal sources of revenue are derived from product sales, sometimes referred to as standard form sales, and supply and installation contracts, sometimes referred to as revenues from fixed price contracts. We identified one single performance obligation for both forms of sales. Revenue is recognized when control is transferred to our customers. For product sales, the performance obligations are satisfied at a point in time and control is deemed to be transferred.

Approximately 14% of the Company's consolidated net sales is generated by supply and installation contracts with customers that require the Company to design, develop, test, manufacture, and install windows according to the customers' specifications. These contracts are primarily multi-year contracts with real estate general contractors and are generally priced on a fixed-price basis and are invoiced based on contract progress.

To determine the proper revenue recognition method, the Company first evaluates each of its contractual arrangements to identify its performance obligations. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. All the Company's contracts have a single performance obligation because the promise to transfer the individual good or service is not separately identifiable from other promises within the contract and is, therefore, not distinct. These contractual arrangements either require the use of a highly specialized manufacturing process to provide goods according to customer specifications or represent a bundle of contracted goods and services that are integrated and together represent a combined output, which may include the delivery of multiple units.

These performance obligations are satisfied over time. Sales are recognized over time when control is continuously transferred to the customer during the contract. The continuous transfer of control to the customer is supported by contract clauses that provide for progress or performance-based payments. Generally, if a customer unilaterally terminates a contract, the Company has the right to receive payment for costs incurred plus a reasonable profit for products and services that do not have alternative use to the Company.

Sales are recorded using the cost-to-cost method on supply and installation contracts that include performance obligations satisfied over time. These sales are generally recorded at amounts equal to the ratio of actual cumulative costs incurred divided by total estimated costs at completion, multiplied by (i) the transaction price, less (ii) the cumulative sales recognized in prior periods.

Accounting for the sales and profits on performance obligations for which progress is measured using the cost-to-cost method involves the preparation of estimates of: (1) transaction price and (2) total costs at completion, which is equal to the sum of the actual incurred costs to date on the contract and the estimated costs to complete the contract's statement of work. Incurred costs include labor, material, and overhead and represent work performed, which corresponds with and thereby represents the transfer of ownership to the customer. Performance obligations are satisfied over time when the risk of ownership has been passed to the customer and/or services are performed. The estimated profit or loss at completion on a contract is equal to the difference between the transaction price and the total estimated cost at completion.

Contract modifications routinely occur to account for changes in contract specifications or requirements. In most cases, contract modifications are for goods or services that are not distinct and, therefore, are accounted for as part of the existing contract. Transaction price estimates include additional consideration for submitted contract modifications or claims when the Company believes it has an enforceable right to the modification or claim, the amount can be reliably estimated, and its realization is reasonably assured. Amounts representing modifications accounted for as part of the existing contract are included in the transaction price and recognized as an adjustment to sales on a cumulative catch-up basis.

The Company's supply and installation contracts allow for progress payments to bill the customer as contract costs are incurred and the customer often retains a small portion of the contract price until satisfactory completion of the contractual statement of work, which is a retainage of approximately 10%. The Company records an asset for unbilled receivables due to completing more work than the progress payment schedule allows to collect at a point in time. For certain supply and installation contracts, the Company receives advance payments. Advanced payments are not considered a significant financing component because they are a negotiated contract term to ensure the customer meets its financial obligation, particularly when there are significant upfront working capital requirements. The Company records a liability for advance payments received in excess of sales recognized, which is presented as a contract liability on the balance sheet.

Revisions or adjustments to estimates of the transaction price, estimated costs at completion and estimated profit or loss of a performance obligation are often required as work progresses under a contract, as experience is gained, as facts and circumstances change and as new information is obtained, even though the scope of work required under the contract may not change. Revisions or adjustments may also be required if contract modifications occur. While there are various factors that can affect the accuracy of cost estimates related to the revision of the proper allocation of indirect labor and indirect material costs to each project, such estimates are made based on the most updated historical information and margins of those indirect costs over the associated revenues and on all relevant information associated with each specific project at any point in time. The impact of revisions in profit or loss estimates are recognized on a cumulative catch-up basis in the period in which the revisions are made. The revisions in contract estimates, if significant, can materially affect the Company's results of operations and cash flows, as well as reduce the valuations of contract assets and inventories, and in some cases result in liabilities to complete contracts in a loss position. The Company recognizes a liability for non-recurring obligations as situations considering that projects actual costs are usually adjusted to estimated costs. The Company did not recognize sales for performance obligations satisfied in prior periods during year ended December 31, 2022.

Shipping and Handling Costs

The Company classifies amounts billed to customers related to shipping and handling as product revenues. The Company records and presents shipping and handling costs in selling expenses.

Sales Tax and Value Added Taxes

The Company accounts for sales taxes and value added taxes imposed on its goods and services on a net basis – value added taxes paid for goods and services purchased is netted against value added tax collected from customers and the net amount is paid to the government. The current value added tax rate in Colombia for all of the Company's products is 19%. A municipal industry and commerce tax ("ICA") sales tax of 0.7% is payable on all of the Company's products sold in the Colombian market.

Product Warranties

The Company offers product warranties in connection with the sale and installation of its products that are competitive in the markets in which the products are sold. Standard warranties depend upon the product and service and are generally from five to ten years for architectural glass, curtain wall, laminated and tempered glass, window and door products. Warranties are not priced or sold separately and do not provide the customer with services or coverages in addition to the assurance that the product complies with original agreed-upon specifications. Claims are settled by replacement of the warranted products. The cost associated with product warranties was \$2,425, \$1,256, and \$681, during the years ended December 31, 2022, 2021, and 2020, respectively.

Advertising Costs

Advertising costs are expensed as they are incurred and are included in general and administrative expenses. Advertising costs for the years ended December 31, 2022, 2021, and 2020, amounted to approximately \$1,612, \$1,457, and \$987, respectively.

Employee Benefits

The Company provides benefits to its employees in accordance with Colombian labor laws. Employee benefits do not give rise to any long-term liability.

Income Taxes

The Company's operations in Colombia are subject to the taxing jurisdiction of the Republic of Colombia. Tecnoglass LLC, Tecnoglass RE LLC, GM&P, Componenti USA LLC and ESW LLC are U.S. entities based in Florida, and are subject to the taxing jurisdiction of the United States. VS is subject to the taxing jurisdiction in the Republic of Panama. Tecnoglass is subject to the taxing jurisdiction of the Cayman Islands. Annual tax periods prior to December 2016 are no longer subject to examination by taxing authorities in Colombia.

The company accounts for income taxes using the asset and liability approach of accounting for income taxes (ASC 740 "Income Taxes"). Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax basis of the Company's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. For each tax jurisdiction in which the Company operates, deferred tax assets and liabilities are offset against one another and are presented as a single noncurrent amount within the consolidated balance sheets.

The Company presents deferred tax assets and liabilities net as either a non-current asset or liability, depending on the net deferred tax position. The Company recognizes the financial statement effects of uncertain income tax positions when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. The Company accrues for other tax contingencies when it is probable that a liability to a taxing authority has been incurred and the amount of the contingency can be reasonably estimated. Interest accrued related to unrecognized tax and income tax related penalties are included in the provision for income taxes. The uncertain income taxes positions are recorded in "Taxes payable" in the consolidated balance sheets.

Earnings per Share

The Company computes basic earnings per share by dividing net income attributable to parent by the weighted-average number of ordinary shares outstanding during the period. Income per share assuming dilution (diluted earnings per share) would give effect to dilutive potential ordinary shares outstanding during the period. See Note 18 – Shareholders' Equity for further detail on the calculation of earnings per share.

Recently Issued Accounting Pronouncements

In March 2020, the FASB issued ASU 2020-04, “Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting”. The amendments in this Update provide optional expedients and exceptions for contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments in this Update apply only to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. The expedients and exceptions provided by the amendments do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for hedging relationships existing as of December 31, 2022, that an entity has elected certain optional expedients for and that are retained through the end of the hedging relationship. In December 2022, the FASB issued ASU 2022-06, Deferral of the Sunset Date of Topic 848 which deferred the effective date of Topic 848. As a result, this standard is effective beginning after December 15, 2024. The Company’s outstanding debt, which bears interest based on LIBOR, contains provisions for transitioning into a benchmark reference rate prior to the discontinuation of LIBOR in 2023. Our interest rate swap derivative contract will be adjusted accordingly.

Adoption of New Accounting Standards

In June 2016, the FASB issued Accounting Standards Update (ASU) 2016-13, Financial Instruments—Credit Losses (Topic 326). This ASU represents a significant change in the allowance for credit losses accounting model by requiring immediate recognition of management’s estimates of current expected credit losses. Under the prior model, losses were recognized only as they were incurred, which FASB has noted delayed recognition of expected losses that might not yet have met the threshold of being probable. The new model is applicable to all financial instruments that are not accounted for at fair value through net income, thereby bringing consistency in accounting treatment across different types of financial instruments and requiring consideration of a broader range of variables when forming loss estimates. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, (with early application permitted). The FASB issued ASU 2019-10 and ASU 2019-11 during the fourth quarter of 2019 that postponed the effective date to the year beginning after December 15, 2022 for smaller reporting companies. In February 2020, the FASB issued ASU 2020-02 “Financial Instruments – Credit Losses (Topic 326) and Leases (Topic 842), which amends SEC Staff Accounting Bulletin No. 119 (SAB119) which contains interpretative guidance from the SEC aligned to the FASB’s ASC 326.

We adopted this standard using the modified retrospective approach at the beginning of fiscal year 2022 as we no longer qualified as a smaller reporting company. The adoption of this ASU did not have a significant impact on the Company’s earnings or financial condition. Refer to additional disclosures in Note 4.

In September 2022, the FASB issued Accounting Standards Update (ASU) No. 2022-04, Liabilities – Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations. The ASU requires a buyer in a supplier finance program to disclose information about the program’s nature, activity during the period, changes from period to period, and potential magnitude. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, except for the disclosure of rollforward information, which is effective for fiscal years beginning after December 15, 2023, with early adoption permitted.

Tecnoglass, Inc. has established payment terms to suppliers for the purchase of goods and services, which normally range between 30 and 60 days. In the normal course of business, suppliers may require liquidity and manage, through third parties, the advanced payment of invoices. The Company allows its suppliers the option to payments in advance of an invoice due date, through a third-party finance provider or intermediary, with the purpose of allowing suppliers to obtain the required liquidity. For these purposes, suppliers present to Tecnoglass, Inc. the third-party finance provider or intermediary with whom they will carry out the finance program and establish an agreement, through which the invoices will be paid by the third-party finance provider or intermediary once Tecnoglass, Inc. has confirmed the invoices as valid. Once the Company confirms the invoices are valid, the third-party finance provider or intermediary proceeds with the payment to the supplier. Subsequently, Tecnoglass, Inc. pays the invoices for goods or services to the third-party finance provider or intermediary selected by the supplier. Payment times do not vary from those initially agreed with the supplier, as stated in the invoices factored by the supplier (i.e. between 30 and 60 days). Pursuant to the supplier finance programs, the Company has not been required to pledge any assets as security nor to provide any guarantee to third-party finance provider or intermediary.

As of December 31, 2022, the obligations outstanding related to the supplier finance program amount to \$9,290, recorded as current liabilities, with \$9,238 classified as Trade accounts payable and accrued expenses and \$52 classified as Due to related parties.

The rollforward of Tecnoglass, Inc.'s outstanding obligations confirmed as valid under its supplier finance program for year ended December 31, 2022, are as follows:

	Twelve months ended December 31, 2022
Confirmed obligations outstanding at the beginning of the year	\$ 11,348
Invoices confirmed during the year	35,755
Confirmed invoices paid during the year	(37,813)
Confirmed obligations outstanding at the end of the year	<u>\$ 9,290</u>

Note 3. Ventanas Solar Acquisition

On November 8, 2021, we announced that we entered into a purchase agreement with Ventanas Solar S.A. ("VS") a Panama domiciled company that acts as an importer and distributor of the Company's products in the Republic of Panama. VS is affiliated with family members of Jose M. Daes, the Company's Chief Executive Officer, and Christian T. Daes, the Company's Chief Operating Officer. Pursuant to the Agreement, the Company through ES acquired 95% of the shares of VS for \$4.0 million, which were paid for through the capitalization of certain accounts receivable of ES from previous sales to VS. The transaction was consummated in December 2021 and is part of the Company's continued strategy to vertically integrate its operations. The remaining 5% of VS was contributed to the Company in 2022 without any further consideration being paid.

The Company incurred expenses of acquisition related costs comprised of the valuation conducted by an independent investment bank and as well as accounting and legal due diligence fees which are recorded in general and administrative expenses in the Company's results of operations.

The acquisition of VS was deemed to be a transaction between entities under common control through family members of the Company's Chief Executive Officer and Chief Operating Officer who owned VS prior to acquisition. As a result, the assets and liabilities were transferred at the historical cost of VS, with prior periods retroactively adjusted to include the historical financial results of the acquired company for the period they were controlled by the previous owners of VS in the Company's financial statements.

The consolidated financial statements contained in this document contain adjustments on prior year comparative period to account for consolidation of VS during 2020. The following adjustment were made to the beginning balance of the following accounts to include VS's balances as of January 1, 2020:

	January 1, 2020		
	Prior to acquisition	Effect of acquisition	After acquisition
Retained earnings	16,213	(4,065)	12,148
Total shareholders' equity	187,210	(4,077)	183,133

Certain accounts receivable due from VS to the Company during previous periods have been reclassified to shareholders' equity as part of the retroactive consolidation.

The following table includes the financial information as originally reported and the net effect of the VS acquisition after elimination of intercompany transactions.

	December 31, 2020		
	Prior to acquisition	Effect of acquisition	After acquisition
Total assets	532,025	(1,913)	530,112
Total sales	374,923	1,684	376,607
Operating income	66,120	(413)	65,707
Income attributable to parent	24,185	(310)	23,875
Basic income per share	0.52	0.00	0.51
Diluted income per share	0.52	0.00	0.51

The following table includes a reconciliation of the financial information for the year ended December 31, 2021 as being reported, the net effect of the VS acquisition after elimination of intercompany transactions, and the financial information that would have been, had the Company not acquired VS:

	December 31, 2021		
	Prior to acquisition	Effect of acquisition	After acquisition
Total assets	589,352	2,211	591,563
Total sales	494,499	2,286	496,785
Operating income	116,895	90	116,985
Income attributable to parent	68,085	66	68,151
Basic income per share	1.43	0.00	1.44
Diluted income per share	1.43	0.00	1.44

Note 4. Long Term Investments

Saint-Gobain Joint Venture

On May 3, 2019, we consummated a joint venture agreement with Saint-Gobain, a world leader in the production of float glass, a key component of our manufacturing process, whereby we acquired a 25.8% minority ownership interest in Vidrio Andino, a Colombia-based subsidiary of Saint-Gobain. The purchase price for our interest in Vidrio Andino was \$45 million, of which \$34.1 million was paid in cash and \$10.9 million paid through the contribution of land on December 9, 2020. On October 28, 2020 we acquired said land from a related party and paid for it with the issuance of an aggregate of 1,557,142 ordinary shares of the Company, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price as of October 27, 2020.

The land will serve the purpose of developing a second float glass plant nearby our existing manufacturing facilities which we expect will carry significant efficiencies for us once it becomes operative, in which we will also have a 25.8% interest. The new plant will be funded with proceeds from the original cash contribution made by the Company, operating cash flows from the Bogota plant, debt incurred at the joint venture level that will not consolidate into the Company and an additional contribution by us of approximately \$12.5 million if needed (based on debt availability).

Note 5. Segment and Geographic Information

The Company has one operating segment, Architectural Glass and Windows, which is also its reporting segment, comprising the design, manufacturing, distribution, marketing and installation of high-specification architectural glass and windows products sold to the construction industry.

In reviewing the Company's segmentation, the Company followed guidance under ASC 280-10-50-1 which states that "an operating segment is a component of a public entity that has all of the following characteristics: (i) it engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same public entity), (ii) its operating results are regularly reviewed by the public entity's Chief Operating Decision Maker ("CODM") to make decisions about resources to be allocated to the segment and assess its performance, and (iii) its discrete financial information is available. Based on the Company's review discussed below, the Company believes that its identification of a single operating and reportable segment— Architectural Glass and Windows— is consistent with the objectives and basic principles of Segment Reporting, which are to "help financial statement readers better understand the public entity's performance, better assess its prospects for future net cash flows and make more informed judgments about the public entity as a whole."

The following tables present geographical information about external customers. Geographical information is based on the location where there the customer is located.

	Twelve months ended December 31,		
	2022	2021	2020
Colombia	\$ 16,000	\$ 26,375	\$ 24,178
United States	688,358	456,327	340,437
Panama	2,738	4,531	2,713
Other	9,474	9,553	9,279
Total revenues	<u>\$ 716,570</u>	<u>\$ 496,785</u>	<u>\$ 376,607</u>

The following table presents revenues from external customer by product groups.

	Years ended December 31,		
	2022	2021	2020
Glass and framing components	\$ 71,479	\$ 76,106	\$ 73,443
Windows and architectural systems	645,091	420,679	303,164
Total revenues	\$ 716,570	\$ 496,785	\$ 376,607

During the year ended December 31, 2022, 2021, and 2020, no single customer accounted for more than 10% of our revenues.

The Company's long-lived assets are distributed geographically as follows:

	Year ended December 31,	
	2022	2021
Colombia	\$ 195,054	\$ 161,270
Panamá	37	60
United States	106,525	103,362
Total long lived assets	\$ 301,616	\$ 264,692

Note 6. Revenue Disaggregation, Contract Assets and Contract liabilities

Disaggregation of Total Net Sales

The Company disaggregates its sales with customers by revenue recognition method for its only segment, as the Company believes these factors affect the nature, amount, timing, and uncertainty of the Company's revenue and cash flows.

	Years ended December 31,		
	2022	2021	2020
Fixed price contracts	\$ 98,299	\$ 77,417	\$ 103,423
Product sales	618,271	419,368	273,184
Total revenues	\$ 716,570	\$ 496,785	\$ 376,607

Remaining Performance Obligations

As of December 31, 2022, the Company had \$482.4 million of remaining performance obligations, which represents the transaction price of firm orders minus sales recognized from inception to date. Remaining performance obligations exclude unexercised contract options, verbal commitments, and potential orders under basic ordering agreements. The Company expects to recognize 100% of sales relating to existing performance obligations within two years, of which \$384.9 million are expected to be recognized during the year ended December 31, 2023, and \$97.5 million during the year ended December 31, 2024.

Contract Assets and Contract Liabilities

Contract assets represent accumulated incurred costs and earned profits on contracts with customers that have been recorded as sales but have not been billed to customers and are classified as current. As a result, the timing of the satisfaction of performance obligations might differ from the timing of payments, given some conditions must be met before billing can occur. Contract assets also include a portion of the amounts billed on certain fixed price contracts that are withheld by the customer as a retainage until a final good receipt of the complete project to the customers satisfaction. Contract liabilities consist of advance payments and billings in excess of costs incurred and deferred revenue, and represent amounts received in excess of sales recognized on contracts. The Company classifies advance payments and billings in excess of costs incurred as current, and deferred revenue as current or non-current based on the expected timing of sales recognition. Contract assets and contract liabilities are determined on a contract-by-contract basis at the end of each reporting period. The non-current portion of contract liabilities is included in other liabilities in the Company's consolidated balance sheets.

The table below presents the components of net contract assets (liabilities).

	December 31, 2022	December 31, 2021
Contract assets — current	\$ 12,610	\$ 18,667
Contract assets — non-current	8,875	11,853
Contract liabilities — current	(49,601)	(45,213)
Contract liabilities — non-current	(11)	(78)
Net contract liabilities	\$ (28,127)	\$ (14,771)

The components of contract assets are presented in the table below.

	December 31, 2022	December 31, 2021
Unbilled contract receivables, gross	\$ 5,738	\$ 8,174
Retainage	15,747	22,346
Total contract assets	21,485	30,520
Less: current portion	12,610	18,667
Contract assets – non-current	\$ 8,875	\$ 11,853

The components of contract liabilities are presented in the table below.

	December 31, 2022	December 31, 2021
Billings in excess of costs	\$ 14,724	\$ 12,854
Advances from customers on uncompleted contracts	34,888	32,437
Total contract liabilities	49,612	45,291
Less: current portion	49,601	45,213
Contract liabilities – non-current	\$ 11	\$ 78

During the year ended December 31, 2022, the Company recognized \$8,583 of sales related to its billing in excess of cost liability on January 1, 2022. During the year ended December 31, 2021, the Company recognized \$6,765 of sales related to its contract liabilities on January 1, 2021.

Note 7. Trade Accounts Receivable

Trade accounts receivable consist of the following:

	December 31,	
	2022	2021
Trade accounts receivable	158,974	110,727
Less: Allowance for credit losses	(577)	(188)
Total	<u>\$ 158,397</u>	<u>\$ 110,539</u>

The changes in the allowance for doubtful accounts for the years ended December 31, 2022, and 2021 are as follows:

	Year ended December 31,	
	2022	2021
Balance at beginning of year	\$ 188	\$ 644
Provision for credit losses	643	1,599
Deductions and write-offs, net of foreign currency adjustment	(254)	(2,055)
Balance at end of year	<u>\$ 577</u>	<u>\$ 188</u>

Note 8. Inventories

Inventories are comprised of the following:

	December 31,	December 31,
	2022	2021
Raw materials	\$ 93,360	\$ 54,443
Work in process	9,875	11,126
Finished goods	6,409	8,789
Stores and spares	13,902	9,869
Packing material	1,563	870
	<u>125,109</u>	<u>85,097</u>
Less: Inventory allowance	(112)	(122)
	<u>\$ 124,997</u>	<u>\$ 84,975</u>

Note 9. Other Current Assets

Other assets consist of the following:

	Year ended December 31,	
	2022	2021
Advances to suppliers and loans	\$ 1,405	\$ 983
Prepaid income taxes	12,579	12,945
Employee receivables	343	323
Prepaid expenses	3,778	3,861
Derivative financial instruments	9,340	-
Other creditors	1,518	4,742
Total	\$ 28,963	\$ 22,854

During the years ended December 31, 2022, 2021, and 2020, the Company recorded \$1,820, \$1,308, and \$1,338 of prepaid expenses amortization, respectively.

Note 10. Property, Plant and Equipment

Property, plant, and equipment is comprised of the following:

	December 31,	December 31,
	2022	2021
Buildings	\$ 66,923	\$ 61,383
Machinery and equipment	185,890	164,538
Office equipment and software	7,338	7,278
Vehicles	3,519	3,302
Aircraft	9,545	9,545
Furniture and fixtures	2,845	2,537
Total property, plant and equipment	276,060	248,583
Accumulated depreciation	(101,804)	(106,845)
Net book value of property and equipment	174,256	141,738
Land	28,609	24,891
Total property, plant and equipment, net	\$ 202,865	\$ 166,629

Depreciation expense was \$16,475, \$17,317 and \$17,107 for the years ended December 31, 2022, 2021, and 2020, respectively.

Note 11. Goodwill and Intangible Assets

Goodwill

There were no movements to goodwill during the year ended December 31, 2022, 2021, and 2020.

Intangible Assets, Net

Intangible assets include Miami-Dade County Notices of Acceptances (“NOA’s”), which are certificates issued for approved products and required to market hurricane-resistant glass in Florida. Also, it includes the intangibles acquired from the acquisition of GM&P.

	December 31, 2022		
	Gross	Acc. Amort.	Net
Trade Names	\$ 980	\$ (980)	\$ -
Notice of Acceptances (“NOA’s”), product designs and other intellectual property	9,987	(7,347)	2,706
Non-compete Agreement	165	(165)	-
Customer Relationships	4,140	(4,140)	-
Total	<u>\$ 15,272</u>	<u>\$ (12,632)</u>	<u>\$ 2,706</u>

	December 31, 2021		
	Gross	Acc. Amort.	Net
Trade Names	\$ 980	\$ (947)	\$ 33
Notice of Acceptances (“NOA’s”), product designs and other intellectual property	9,456	(6,280)	3,176
Non-compete Agreement	165	(160)	5
Customer Relationships	4,140	(4,017)	123
Total	<u>\$ 14,741</u>	<u>\$ (11,404)</u>	<u>\$ 3,337</u>

The weighted average amortization period is 5.1 years.

During the twelve months ended December 31, 2022, 2021, and 2020, the amortization expense amounted to \$1,391, \$2,298 and \$2,178, respectively, and was included within the general and administration expenses in our consolidated statement of operations.

The estimated aggregate amortization expense for each of the five succeeding years as of December 31, 2022, is as follows:

Year ending	(in thousands)
2023	975
2024	686
2025	380
2026	297
Thereafter	368
	<u>\$ 2,706</u>

Note 12. Other Long-Term Assets

Other long-term assets are comprised of the following:

	December 31,	
	2022	2021
Real estate investments	\$ 3,432	\$ 3,848
Other long-term investments	\$ 1,113	\$ 309
	<u>\$ 4,545</u>	<u>\$ 4,157</u>

Note 13. Debt

The Company's debt is comprised of the following:

	December 31, 2022	December 31, 2021
Revolving lines of credit	\$ 330	\$ 279
Finance lease	395	306
Other loans	-	239
Senior secured credit facility	172,500	204,257
Less: Deferred cost of financing	(3,740)	(6,026)
Total obligations under borrowing arrangements	<u>169,484</u>	<u>199,055</u>
Less: Current portion of long-term debt and other current borrowings	504	10,700
Long-term debt	<u>\$ 168,980</u>	<u>\$ 188,355</u>

In October 2020, the Company entered into a \$300 million five-year term Senior Secured Credit Facility consisting of a \$250 million delayed draw term loan and a \$50 million committed revolving credit facility which bears interest at a rate of LIBOR, with a 0.75% floor, plus a spread of between 2.50% and 3.50%, based on the Company's net leverage ratio. In December 2020, we used \$23.1 million proceeds of the long-term debt facility to repay several credit facilities. Subsequently, in January 2021 we redeemed the Company's existing \$210 million unsecured senior notes, which had an interest rate of 8.2% and mature in 2022 using proceeds from this new facility and incurred in an extinguishment cost of \$10.9 million including \$8.6 of call premium to exercise the call option.

In November 2021, the Company amended its Senior Secured Credit Facility to (i) increase the borrowing capacity under its committed Line of credit from \$50 million to \$150 million, (ii) reduce its borrowing costs by an approximate 130 basis points, and (iii) extend the initial maturity date by one year to the end of 2026. Borrowings under the credit facility now bear interest at a rate of LIBOR with no floor plus a spread of 1.50%, based on the Company's net leverage ratio, compared to a prior rate of LIBOR with a floor of 0.75% plus a spread of 2.50%, resulting on total annual savings of approximately \$15 million at current levels of outstanding borrowings, since entering into our inaugural US Bank syndicated facility in October of 2020. The effective interest rate for this credit facility including deferred issuance costs is 5.93%. In relation to this transaction, the Company accounted for costs related to fees paid of \$1,496. This was accounted for as a debt modification and \$1,346 of fees paid to banks were capitalized as deferred cost of financing and \$150 paid to third parties recorded as an operating expense on the consolidated statements of operations for the year 2021. In March 2022, we voluntarily prepaid \$15 million of capital to this credit facility which has decreased our net leverage ratio and triggered a step down in the applicable interest rate spread to 1.5%. Additionally, on September 30, 2022 we voluntarily prepaid \$10.0 million of the term loan and \$6.7 million under the revolving line of credit which is fully unused as of December 31, 2022.

As of December 31, 2022, all assets of the company are pledged as collateral for the syndicated loan.

The table below shows maturities of debt as of December 2022.

2023	504
2024	6,397
2025	15,073
2026	151,251
Thereafter	-
Total	<u>\$ 173,225</u>

The Company's loans have maturities ranging from a few weeks to 4 years. Our credit facilities bear interest at a weighted average rate of 5.16%, but a large portion of our debt is hedged through 2026 at a fixed rate of 3.41%.

Interest expense, excluding the amortization of deferred financing cost, for the year ended December 31, 2022, 2021, and 2020, was \$6,786, \$8,482 and \$20,699, respectively. During the years ended December 31, 2022, 2021 and 2022, the Company did not capitalize interests.

Note 14. Income Taxes

The Company files income tax returns for TG, ES and ES Metals in the Republic of Colombia. GM&P, Componenti USA LLC and ESW LLC are U.S. entities based in Florida subject to U.S. federal and state income taxes. VS files income tax returns in the Republic of Panama. Tecnoglass Inc. does not currently have any tax obligations.

On September 14, 2021, the Colombian Government enacted Law 2155 (the Social Investment Act), which increases the corporate income tax to 35% for fiscal year 2022 and thereafter, from the current rate of 31% for 2021 that would have decreased to 30% for 2022 under the prior tax regulation. On December 13, 2022, a tax reform was enacted by means of Law 2277, which maintained corporate income tax rate at 35%, and increased income taxes to Free Trade Zones with single enterprise users and non-exporters, from 20% to 35%.

The components of income tax expense are as follows:

	Twelve months ended December 31,		
	2022	2021	2020
Current income tax			
United States	(7,012)	\$ (1,679)	\$ (1,385)
Colombia	(62,230)	(22,354)	(5,035)
Panama	(32)	(52)	(32)
	<u>(69,274)</u>	<u>(24,085)</u>	<u>(6,452)</u>
Deferred income Tax			
United States	422	(1,829)	20
Colombia	(5,906)	(2,571)	(6,601)
	<u>(5,484)</u>	<u>(4,400)</u>	<u>(6,581)</u>
Total income tax provision	<u>(74,758)</u>	<u>\$ (28,485)</u>	<u>\$ (13,033)</u>
Effective tax rate	32.3%	29.4%	35.3%

A reconciliation of the statutory tax rate in Colombia to the Company's effective tax rate is as follows:

	Year ended December 31,		
	2022	2021	2020
Income tax expense at statutory rates	33.8%	29.6%	30.5%
Non-deductible expenses	0.7%	2.4%	5.9%
Non-taxable income	(2.2)%	(2.6)%	(1.1)%
Effective tax rate	<u>32.3%</u>	<u>29.4%</u>	<u>35.3%</u>

No single individual item contributed significantly to the reconciliation of the Company's effective tax rate to the statutory rate during the year ended December 31, 2020, 2021, and 2022.

The Company has the following deferred tax assets and liabilities:

	Year ended December 31,	
	2022	2021
Deferred tax assets:		
Property, plant and equipment adjustments	218	471
Tax benefit on installation of renewable energy project	133	201
Foreign currency transactions	4,982	3,828
Other	(1,416)	59
Total deferred tax assets	\$ 3,917	\$ 4,559
Deferred tax liabilities:		
Depreciation and Amortization	(5,138)	(4,772)
Other	200	(71)
Foreign currency transactions	(3,609)	(2,537)
Total deferred tax liabilities	\$ (8,547)	\$ (7,380)
Net deferred tax	\$ (4,632)	\$ (2,821)

Net deferred tax is presented on the balance sheet as follows:

	Year ended December 31,	
	2022	2021
Long term deferred income tax asset	\$ 558	\$ 596
Less: long term deferred income tax liability	\$ 5,190	\$ 3,417

Note 15. Hedging Activities and Fair Value Measurements

Hedging Activity

During the quarter ended March 31, 2022, we entered into several interest rate swap contracts to hedge the interest rate fluctuations related to our outstanding debt. The effective date of the contract is December 31, 2022 and, thus, we shall have payment dates each quarter, commencing March, 31 2023. During the quarter ended December 31, 2022, we entered into several foreign currency non-delivery forward contracts to hedge the fluctuations in the exchange rate between the Colombian Peso and the U.S. Dollar. Our contracts are designated as cash flow hedges since they are highly effective in offsetting changes in the cash flows attributable to forecasted LIBOR and Colombian Peso denominated costs and expenses, respectively.

We record our hedge contracts at fair value and consider our credit risk for contracts in a liability position, and our counter-party's credit risk for contracts in an asset position, in determining fair value. We assess our counter-party's risk of non-performance when measuring the fair value of financial instruments in an asset position by evaluating their financial position, including cash on hand, as well as their credit ratings.

As of December 31, 2022, the fair value of our interest rate swap and foreign currency non-delivery forward contracts was in a net asset position of \$9.3 million. We had 16 outstanding interest rate swap contracts to hedge \$125 million related to our outstanding debt through November 2026 and 4 non-delivery forward contracts to exchange \$30 million U.S. Dollars to Colombian Pesos through April, 2023. We assessed the risk of non-performance of the Company to these contracts and determined it was insignificant and, therefore, did not record any adjustment to fair value as of December 31, 2022.

We assess the effectiveness of our interest rate swap and foreign currency non-delivery forward contracts by comparing the change in the fair value of the interest rate swap and foreign currency non-delivery forward contracts to the change in the expected cash to be paid for the hedged item. The effective portion of the gain or loss on our interest rate swap and foreign currency non-delivery forward contracts is reported as a component of accumulated other comprehensive income and is reclassified into earnings in the same line item in the income statement as the hedged item in the same period or periods during which the transaction affects earnings. The amount of gains, net, recognized in the "accumulated other comprehensive income" line item in the accompanying consolidated balance sheet as of December 31, 2022, that we expect will be reclassified to earnings within the next twelve months, is \$9.3 million.

The fair value of our interest rate swap and foreign currency non-delivery forward hedges is classified in the accompanying consolidated balance sheets, as of December 31, 2022, as follows:

	Derivative Assets		Derivative Liabilities	
	December 31, 2022		December 31, 2022	
Derivatives designated as hedging instruments under Subtopic 815-20:	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivative instruments:				
Interest Rate Swap Contracts and foreign currency non-delivery forwards	Other current assets	\$ 9,340	Accrued liabilities	\$ (-)
Total derivative instruments	Total derivative assets	\$ 9,340	Total derivative liabilities	\$ (-)

The ending accumulated balance for the interest rate swap and foreign currency non-delivery forward contracts included in accumulated other comprehensive income, net of tax, was \$9,187 as of December 31, 2022, comprised of a derivative gain of \$9,340 and an associated net tax liability of \$153.

The following table presents the gains (losses) on derivative financial instruments, and their classifications within the accompanying consolidated financial statements, for the quarter ended December 31, 2022:

	Derivatives in Cash Flow Hedging Relationships					
	Amount of Gain or (Loss) Recognized in OCI (Loss) on Derivatives		Location of Gain or (Loss) Reclassified from Accumulated OCI (Loss) into Income		Amount of Gain or (Loss) Reclassified from Accumulated OCI (Loss) into Income	
	December 31, 2022	December 31, 2021			December 31, 2022	December 31, 2021
	Interest Rate Swap and foreign currency non-delivery forwards Contracts	\$ 143	\$ -	Interest Expense		\$ -

The following table presents the gains (losses) on derivative financial instruments, and their classifications within the accompanying consolidated financial statements, for the twelve months ended December 31, 2022:

	Derivatives in Cash Flow Hedging Relationships					
	Amount of Gain or (Loss) Recognized in OCI (Loss) on Derivatives		Location of Gain or (Loss) Reclassified from Accumulated OCI (Loss) into Income		Amount of Gain or (Loss) Reclassified from Accumulated OCI (Loss) into Income	
	December 31, 2022	December 31, 2021			December 31, 2022	December 31, 2021
	Interest Rate Swap and foreign currency non-delivery forwards and collar contracts	\$ 9,340	\$ -	Interest Expense		\$ -

Fair Value Measurements

The Company accounts for financial assets and liabilities in accordance with accounting standards that define fair value and establish a framework for measuring fair value. The hierarchy prioritizes the inputs into three broad levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on the Company's assumptions used to measure assets and liabilities at fair value. A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The carrying amounts of the Company's financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and advances from customers approximate their fair value due to their relatively short-term maturities. The Company bases its fair value estimate for long term debt obligations on its internal valuation that all debt is floating rate debt based on current interest rates.

The fair values of derivatives used to manage interest rate risks are based on LIBOR rates and interest rate swap curves. Measurement of our derivative assets and liabilities is considered a level 2 measurement. To carry out the swap valuation, the definition of the fixed leg (obligation) and variable leg (right) is used. Once the projected flows are obtained in both fixed and variable rates, the regression analysis is performed for prospective effectiveness test. The projection curve contains the forward interest rates to project flows at a variable rate and the discount curve contains the interest rates to discount future flows, using the one-month USD Libor curve.

As of December 31, 2022, financial instruments carried at amortized cost that do not approximate fair value consist of long-term debt. See Note 13—Debt. The fair value of long-term debt was calculated based on an analysis of future cash flows discounted with our average cost of debt, which is based on market rates, which are level 2 inputs.

The following table summarizes the fair value and carrying amounts of our long-term debt:

	December 31, 2022	December 31, 2021
--	-------------------	-------------------

Fair Value	172,408	194,285
Carrying Value	168,980	188,355

Note 16. Related Parties

The following is a summary of assets, liabilities, and income transactions with all related parties:

	<u>December 31,</u> <u>2022</u>	<u>December 31,</u> <u>2021</u>
Due from related parties:		
Alutrafic Led SAS	249	526
Studio Avanti SAS	113	408
Due from other related parties	1,085	1,318
Total due from related parties	\$ 1,447	\$ 2,252
Due to related parties:		
Vidrio Andino (St. Gobain)	4,853	2,834
Due from other related parties	470	1,023
Total due to related parties	\$ 5,323	\$ 3,857

	<u>Year ended December 31,</u>		
	<u>2022</u>	<u>2021</u>	<u>2020</u>
Sales to related parties:			
Alutrafic Led SAS	\$ 941	\$ 1,104	\$ 697
Studio Avanti SAS	534	757	355
Sales to other related parties	360	259	497
	\$ 1,835	\$ 2,120	\$ 1,549

A Construir SA

On a recurring basis, we have engaged A Construir S.A., a heavy construction company operating in Barranquilla, Colombia, to carry out construction related to our ongoing capital expenditures at our production facilities in Colombia. Affiliates of Jose Daes and Christian Daes, the company's CEO and COO, respectively, had an ownership stake in A Construir through June 1, 2022. We purchased \$4,312 during the five months through May 31, 2022, and \$9,292 during the year ended December 31, 2021, respectively, from A Construir S.A. for construction and facilities which have been capitalized on the Company's balance sheet as property, plant and equipment. Given that A Construir is no longer considered a related party, amounts as of December 31, 2022, are not reflected as balances due from and due to related parties as of December 31, 2022, on the face of the Consolidated Balance Sheet nor the summary table above.

Alutrafic Led SAS

In the ordinary course of business, we sell products to Alutrafic Led SAS ("Alutrafic"), a fabricator of electrical lighting equipment. Affiliates of Jose Daes and Christian Daes, the Company's CEO and COO, respectively, have an ownership stake in Alutrafic. We sold \$941, \$1,104, and \$697, to Alutrafic during fiscal years 2022, 2021, and 2020, respectively, and had outstanding accounts receivable from Alutrafic for \$249 and \$526 as of December 31, 2022, and 2021, respectively.

Santa Maria del Mar SAS

In the ordinary course of business, we purchase fuel for use at our manufacturing facilities from Estación Santa Maria del Mar SAS, a gas station located near our manufacturing campus which is owned by affiliates of Jose Daes and Christian Daes, the Company's CEO and COO, respectively. During the years ended December 31, 2022, 2021, and 2020, we purchased \$935, \$291, and \$311, respectively. Additionally, during 2022 we also acquired a lot of land adjacent to our manufacturing campus from Santa Maria del Mar SAS for \$352.

Fundacion Tecnoglass-ESWindows

Fundacion Tecnoglass-ESWindows is a non-profit organization set up by the Company to carry out social causes in the communities around where we operate. During the years ended December 31, 2022, 2021, and 2020, we made charitable contributions for \$1,564, \$1,350, and \$1,259, respectively.

Studio Avanti SAS

In the ordinary course of business, we sell products to Studio Avanti SAS (“Avanti”), a distributor and installer of architectural systems in Colombia. Avanti is owned and controlled by Alberto Velilla, who is director of Energy Holding Corporation, the controlling shareholder of the Company. We sold \$534, \$757, and \$355, to Avanti during fiscal years 2022, 2021, and 2020, respectively, and had outstanding accounts receivable from Avanti for \$113 and \$408 as of December 31, 2022, and 2021, respectively.

Vidrio Andino Joint Venture (A Saint-Gobain subsidiary)

On May 3, 2019, we consummated a joint venture agreement with Saint-Gobain, a world leader in the production of float glass, a key component of our manufacturing process, whereby we acquired a 25.8% minority ownership interest in Vidrio Andino, a Colombia-based subsidiary of Saint-Gobain. The purchase price for our interest in Vidrio Andino was \$45 million, of which \$34.1 million was paid in cash and \$10.9 million paid through the contribution of land on December 9, 2020. On October 28, 2020, we acquired said land from a related party and paid for it with the issuance of an aggregate of 1,557,142 ordinary shares of the Company, valued at \$7.00 per share, which represented an approximate 33% premium based on the closing stock price as of October 27, 2020.

The land will serve the purpose of developing a second float glass plant nearby our existing manufacturing facilities which we expect will carry significant efficiencies for us once it becomes operative, in which we will also have a 25.8% interest. The new plant will be funded with proceeds from the original cash contribution made by the Company, operating cash flows from the Bogota plant, debt incurred at the joint venture level that will not consolidate into the Company and an additional contribution by us of approximately \$12.5 million if needed (based on debt availability or other sources).

In the ordinary course of business, we purchased \$20,764, \$15,308, and \$14,339, from Vidrio Andino in 2022, 2021, and 2020, respectively. As of December 31, 2022, and 2021, we had outstanding payables to Vidrio Andino for \$4,853 and \$2,834, respectively. We recorded equity method income of \$6,680, \$4,177, and \$1,387, on our Consolidated Statement of Operations during the years ended December 31, 2022, 2021, and 2020, respectively.

Zofracosta SA

Our subsidiary ES has an investment in Zofracosta SA, a real estate holding company and operator of a tax-free zone located in the vicinity of the proposed glass plant being built through our Vidrio Andino joint venture, valued at \$632 and \$764 as of December 31, 2022, and 2021, respectively. Affiliates of Jose Daes and Christian Daes, the Company’s CEO and COO, respectively, have a majority ownership stake in Zofracosta SA.

Note 17. Commitments and Contingencies

Commitments

As of December 31, 2022, the Company had an outstanding obligation to purchase an aggregate of at least \$77,183 of certain raw materials from a specific supplier before November 30, 2030.

Additionally, in connection with the joint venture agreement the Company consummated with Saint-Gobain on May 3, 2019, further described in Note 4. Long Term Investments, the Company acquired a contingent obligation to purchase minimum volumes of float glass once the new plant located close to the Company’s actual manufacturing facilities commences operations.

Guarantees

As of December 31, 2022, the Company does not have guarantees on behalf of other parties.

General Legal Matters

From time to time, the Company is involved in legal matters arising in the regular course of business. Some disputes are derived directly from our construction projects, related to supply and installation, and even though deemed ordinary, they may involve significant monetary damages. We are also subject to other type of litigations arising from employment practices, worker’s compensation, automobile claims and general liability. It is very difficult to predict precisely what the outcome of these litigations might be. However, with the information at our disposition as this time, there are no indications that such claims will result in a material adverse effect on the business, financial condition or results of operations of the Company.

Note 18. Shareholders' Equity

Preferred Shares

Tecnoglass is authorized to issue 1,000,000 preferred shares with a par value of \$0.0001 per share with such designation, rights and preferences as may be determined from time to time by the Company's board of directors.

As of December 31, 2021, there are no preferred shares issued or outstanding.

Ordinary Shares

The Company is authorized to issue 100,000,000 ordinary shares with a par value of \$0.0001 per share. As of December 31, 2022, a total of 47,674,773 Ordinary shares were issued and outstanding.

Legal Reserve

Colombian regulation requires that companies retain 10% of net income until it accumulates at least 50% of subscribed and paid in capital. The amount recorded meets this standard.

Earnings per Share

The following table sets forth the computation of the basic and diluted earnings per share for the years ended December 31, 2022, 2021, and 2020:

	Twelve months ended December 31,		
	2022	2021	2020
Numerator for basic and diluted earnings per shares			
Net Income	156,412	\$ 68,428	\$ 23,841
Denominator			
Denominator for basic earnings per ordinary share - weighted average shares outstanding	47,674,773	47,674,773	46,398,428
Effect of dilutive securities and stock dividend	-	-	-
Denominator for diluted earnings per ordinary share - weighted average shares outstanding	<u>47,674,773</u>	<u>47,674,773</u>	<u>46,398,428</u>
Basic earnings per ordinary share	3.28	\$ 1.44	\$ 0.51
Diluted earnings per ordinary share	3.28	\$ 1.44	\$ 0.51

Long Term Incentive Compensation Plan

On December 20, 2013, our shareholders approved our 2013 Long-Term Equity Incentive Plan ("2013 Plan"). Under the 2013 Plan, 1,593,917 ordinary shares are reserved for issuance in accordance with the plan's terms to eligible employees, officers, directors and consultants. As of December 31, 2022, no awards had been made under the 2013 Plan.

Dividend

In November 2022, the Company declared a regular quarterly dividend of \$0.075 per share, or \$0.30 per share on an annualized basis, for the fourth quarter of 2022. The quarterly dividend was paid in cash on January 31, 2023, to shareholders of record as of the close of business on December 31, 2022.

The payment of any dividends is ultimately within the discretion of our Board of Directors. The payment of dividends in the future, if any, will be contingent upon our revenues and earnings, if any, capital requirements and our general financial condition and limitations imposed by our outstanding indebtedness.

Dividend declarations and the establishment of future record and payment dates are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of the Company and its shareholders. The dividend policy may be changed or cancelled at the discretion of the Board of Directors at any time.

Non-controlling interest

We own 70% of the equity interest in ESMetals. When the Company owns a majority (but less than 100%) of a subsidiary's stock, the Company includes in its Consolidated Financial Statements the non-controlling interest in the subsidiary. The non-controlling interest in the Consolidated Statements of Operations and Other Comprehensive Income is equal to the non-controlling interests' proportionate share of the subsidiary's net income and, as included in Shareholders' Equity on the Consolidated Balance Sheet, is equal to the non-controlling interests' proportionate share of the subsidiary's net assets. In determining the fair value, we used the income approach and the market approach which was performed by the assistance of third party valuation specialists under management.

Note 19. Operating Expenses

Selling expenses for the years ended December 31, 2022, 2021, and 2020, were comprised of the following:

	Twelve months ended December 31,		
	2022	2021	2020
Shipping and handling	39,311	\$ 23,064	\$ 16,075
Sales commissions	13,265	10,740	8,161
Personnel	7,896	7,060	6,287
Services	3,033	2,616	1,921
Accounts receivable provision	643	1,599	1,196
Packaging	1,338	1,820	1,036
Other selling expenses	3,520	2,869	4,389
Total Selling Expense	69,006	\$ 49,768	\$ 39,065

General and administrative expenses for the years ended December 31, 2022, 2021, and 2020, were comprised of the following:

	Twelve months ended December 31,		
	2022	2021	2020
Personnel	\$ 11,859	\$ 10,814	\$ 9,976
Related parties	9,972	6,746	6,617
Services	5,568	3,915	4,168
Depreciation and amortization	3,043	3,593	3,687
Professional fees	3,138	3,029	2,971
Insurance	2,880	2,139	1,904
Taxes	1,219	1,047	1,138
Bank charges and tax on financial transactions	2,812	1,911	1,273
Rent expense	1,270	894	830
Non-recurring short seller report investigation related expenses	3,402	-	-
One time project dispute settlement	4,550	-	-
Other expenses	4,365	1,743	2,105
Total General and administrative expenses	\$ 54,078	\$ 35,831	\$ 34,669

Note 20. Non-Operating Income and Expenses

Non-operating income and expenses, net on our consolidated statement of operations amounted to an income of \$4.2 million, \$0.6 million, and \$0.1 million, for the years ended December 31, 2022, 2021, and 2020, respectively. These amounts are primarily comprised of income from rental properties and gains on sale of scrap materials as well as non-operating expenses related to certain charitable contributions outside of the company's direct sphere of influence.

During the year ended December 31, 2021, the Company also recorded a loss in debt extinguishment of \$10.7 million, mainly comprised of a one-time \$8.6 million call premium paid on the \$210 million senior notes redemption, along with a non-cash amortization of deferred cost of financing related to said notes.

During the year ended December 31, 2022, the Company recorded a non-operating gain of \$2.0 million associated with foreign currency transactions losses. Comparatively, the Company recorded a net loss of \$4.3 million during the year ended December 31, 2021, within the statement of operations as the Colombian peso depreciated 20.8% during the period. The company recorded net loss of \$8.6 million during the year ended December 31, 2020, within the statement of operations.

Name of Subsidiary	Description
C.I. Energía Solar S.A.S. E.S. Windows	A simplified stock corporation, organized under the laws of Colombia, which is owned directly by Tecnoglass.
C.I. Energía Solar S.A.S. E.S. Windows Sucursal Bolivia	A branch of C.I. Energía Solar S.A.S E.S. Windows Colombia registered to do business in Bolivia.
Componenti USA LLC	A Florida limited liability company organized under the laws of the State of Florida in which is owned solely by GM&P.
Energia Solar – ESWINDOWS Paraguay SA	A corporation, organized under the laws of Paraguay, which is owned solely by ES.
ES Metals SAS	A corporation, organized under the laws of Colombia in which Tecnoglass owns 70% equity interest. The remaining 30% is owned by Carlos Peña, its current General Manager and an unaffiliated party of the Company
ESW Aviation LLC	A Florida limited liability company organized under the laws of the State of Florida in which is owned solely by ES Windows LLC.
E.S. Windows California, LLC	A Florida limited liability company organized under the laws of the State of Florida in which is owned solely by ES Windows LLC.
E.S. Windows LLC	A Florida limited liability company organized under the laws of the State of Florida in which Tecnoglass and ES are members.
E.S. Windows New York, LLC	A Florida limited liability company organized under the laws of the State of Florida in which is owned solely by ES Windows LLC.
E.S. Windows Peru S.A.C.	A corporation, organized under the laws of Peru, which is owned by TG and ES.
GM&P Consulting and Glazing Contractors, Inc.	A corporation organized under the laws of the State of Florida in which Tecnoglass Inc. is the sole member.
Tecnoglass S.A.S	A simplified stock corporation, organized under the laws of Colombia, which is owned directly Tecnoglass.
Tecnoglass LLC	A Florida limited liability company organized under the laws of the State of Florida in which Tecnoglass is the sole member.
Tecno RE LLC	A Florida limited liability company organized under the laws of the State of Florida in which Tecnoglass is the sole member.
Ventanas Solar S.A.	A corporation, organized under the laws of Panama in which ES owns 95% equity interest.
Vidrio Andino Holding S.A.S.	A simplified stock corporation where Tecnoglass Inc owns 25,8% of equity interest.

**CERTIFICATION PURSUANT TO
RULE 13a-14 AND 15d-14
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Jose Daes, certify that:

1. I have reviewed this annual report on Form 10-K of Tecnoglass Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;
4. The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the issuer is made known to me by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report my conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the issuer's most recent fiscal quarter (the issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and
5. The issuer's other certifying officer and I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 7, 2023

By: /s/ Jose Daes
Name: Jose Daes
Title: Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
RULE 13a-14 AND 15d-14
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Santiago Giraldo, certify that:

1. I have reviewed this annual report on Form 10-K of Tecnoglass Inc;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the issuer's most recent fiscal quarter (the issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and
5. The issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 7, 2023

By: /s/ Santiago Giraldo
Name: Santiago Giraldo
Title: Chief Financial Officer
(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Tecnoglass Inc. (the "Company") on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned, in the capacities and on the dates indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operation of the Company.

Date: March 7, 2023

By: /s/ Jose Daes
Name: Jose Daes
Title: Chief Executive Officer
(Principal Executive Officer)

By: /s/ Santiago Giraldo
Name: Santiago Giraldo
Title: Chief Financial Officer
(Principal Financial and Accounting Officer)
