

# TO OUR SHAREHOLDERS

NIPPON SHEET GLASS CO., LTD.  
156TH FISCAL PERIOD INTERIM REPORT  
1 APRIL 2021 – 30 SEPTEMBER 2021



Cover Photo:  
Ariake Arena(Tokyo)  
Please refer to the TOPICS(Page6)  
for the details.



## Message from the President and CEO

On behalf of the NSG Group, I would like to express my sincere gratitude for your continued support. I would like to present Group's financial results for the first half (from 1 April to 30 September 2021) of the 156th fiscal period (FY2022) as follows.

November 2021

**Shigeki Mori**

Representative Executive Officer  
President and CEO  
Nippon Sheet Glass Co., Ltd.

森 重樹

### Summary of the First Half of FY2022 and Outlook for the Second Half

In the first half of FY2022, while the Group's business environment was severely affected by the spread of COVID-19 infection in some businesses/regions, Architectural glass business stayed buoyant in general thanks to the demand recovery in many regions. The demand for Solar energy glass continued to be robust as well. Technical glass business also benefited from the strong consumer demand in many regions. In contrast, Automotive glass business, though significantly recovered in the first quarter, continued to struggle in the second quarter and onwards because of an extremely low level of demand as automotive production was constrained by shortages of semiconductors

and other automotive components.

In addition, the Group was seriously impacted by rising input costs, particularly energy costs, but managed to mitigate it by persistent cost cutting and increasing prices reflecting the supply and demand conditions.

Consequently, the Group was able to deliver a significant year-on-year improvement and net profit exceeding our forecast for the first half of FY2022, with revenues of 290.7 billion yen (221.5 billion yen in the same period of FY2021), operating profits of 12.7 billion yen (3.2 billion yen in the same period of FY2021), and the profit attributable to the owners of the parent of 8.6 billion yen (loss of 17.3 billion yen in the same period of FY2021), partly boosted by exceptional profits (net) of 4.5 billion yen including a gain on the transfer of Battery separator business.

The business environment in the second half of FY2022 is expected to continue to be influenced by soaring input costs including rising energy prices significantly. In Automotive glass business, while uncertainties remain with respect to the timing for resolution of semiconductor and other component shortages, we aim to recover profitability on a full-year basis by implementing additional cost reduction measures. Both Architectural and Technical glass businesses are expected to continue to enjoy a favourable business environment and our forecast of increased revenues and profits remains unchanged in all business lines.

### Progress in "Revival Plan 24 (RP 24)" as a new Medium Term Management Plan

This is the first year for "RP 24" as a new Medium Term Management Plan covering the period from FY2022 to FY2024.

The Group considers the period of RP24 as the time for transformation and commits to execute Three Reforms, i.e. Cost structure reform, Business structure reform and Corporate culture reform, and Two Key Initiatives, i.e. Restoration of financial stability and Transformation into more profitable business portfolio, in a bid to achieve the business strength to enable sustainable growth.

Progresses made in the 1st half of this term include the following:

A steady progress has been made in reducing costs through Cost structure reform activities and Business structure reform has led to increased contribution of highly profitable businesses. As one good example of Transformation into more profitable business portfolio, the transfer of Battery separator business was completed on the 1st of September, contributing to a major profit increase with continued net profit in the 1st half and also, the equity ratio recovered above 10 percent paving the way toward Restoration of financial stability. Moreover, the Group has also commenced taking a variety of forward-looking steps including a trial in glass production powered by hydrogen as well as the environmental contribution with such products as Solar energy glass and BIPV (Building Integrated Photovoltaics) aiming at carbon neutrality; advancement of Inclusion & Diversity globally as a part of Corporate culture reform; and promotion of a talent development program amongst all.

## Transformation Initiatives under Revival Plan 24

Three Reforms	Cost structure reform	<ul style="list-style-type: none"> <li>Headcount: Consolidation/Closure of sites/production lines mainly in Automotive business in Europe and Americas. Over 500 reductions in 2022/3 (JPY 5.8 bn cost reduction vs 2020/3), resulting in over 2,000 since 2020/3 end (JPY 13.0 bn reduction at 2022/3 end vs 2020/3) (Severance cost provided in 2021/3)</li> <li>Non headcount: Direct costs savings of JPY 2.3 bn so far and JPY 4.3 bn in 2022/3 via Kaikaku and Kakushin activities. Electricity usage and CO<sub>2</sub> emission through battery storage system in a Canadian site</li> <li>Additional cost reduction initiatives of around JPY 5 bn in Automotive business</li> </ul>
	Business structure reform	<ul style="list-style-type: none"> <li>Contribution to profit and CO<sub>2</sub> emission by solar energy glass furnace in the USA and Vietnam</li> <li>New float furnace construction in Argentina aiming for full operation in early 2023/3</li> <li>New products such as BIPV (Building Integrated Photovoltaics) and antiviral glass with on-line coating technology. Printer lens applied to office-use printer and glass code to industrial machines or robots</li> <li>New division: Creative Technology Business Development Division</li> <li>Test of hydrogen power and transparent solar panels for use as windows aiming for carbon neutrality</li> </ul>
	Corporate culture reform	<ul style="list-style-type: none"> <li>Enhancing "Inclusion &amp; Diversity (I&amp;D)" activities globally to improve manager gender diversity and accelerate development of next generation</li> <li>Identifying new competencies to quantify specific talents and skills and develop strategy needed to deliver RP24</li> </ul>
Two Key Initiatives	Restoration of financial stability (2022/3 Q2 actual)	<ul style="list-style-type: none"> <li>Continued net profit significantly improved by JPY 26 bn year-on-year. Shareholder's equity ratio also improved above 10%</li> <li>JPY 43.4 bn of cash and JPY 78.0 bn unused commitment lines at the end of Sep. 2021</li> </ul>
	Transformation into more profitable business portfolio	<ul style="list-style-type: none"> <li>Disposal of Battery Separator business completed on 1st September</li> </ul>

## Enhancement of sustainability

Based on "Our Vision," the new management principles for NSG Group, we set forth Materiality for the Group and pursue initiatives to achieve a sustainable corporate growth and to realize a sustainable society over the medium to long-term. In line with this, we have announced an endorsement of the recommendations by TCFD (Task Force on Climate-related Financial Disclosures) on climate-related financial disclosures. We plan to elaborate our information disclosure by evaluating the potential impact of climate-related risks and opportunities more quantitatively utilizing the climate scenario analysis along with the disclosure framework recommended by TCFD. Our Group continues to drive sustainability initiatives to realize a sustainable society in the future.

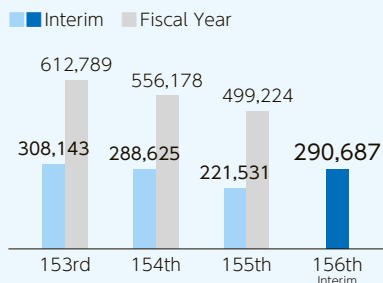
### Our Vision



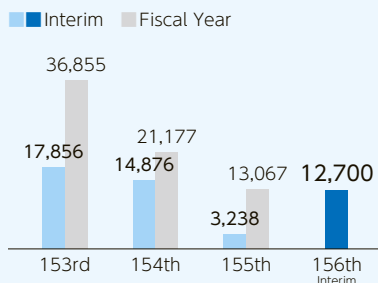
### Materiality

Item	Aspiration
Environment	Contribute to the realization of a decarbonized society with GHG emissions reduction by eco-friendly manufacturing process and sales expansion of eco-friendly products
Society Shift and Innovation	Identify significant challenges to society and providing technology/product/service to their solution in a timely fashion
Safe and High-Quality Products and Services	Enhance both the products and service quality through improvement of quality and supply chain control
Ethics and Compliance	Carry off significant trust from stakeholders by constant address on Ethics and Compliance
Human Capital	Ensure sustainable growth of the Group and contribute employees' welfare through a variety of initiatives to enhance developing Change Leaders at global level, safety, health, and Inclusion and Diversity.

### Revenue (Millions of yen)

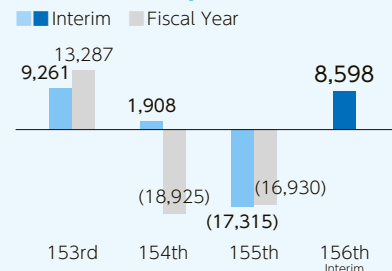


### Operating profit (Millions of yen)



Note: Operating profit in the above is defined as being operating profit stated before exceptional items.

### Profit attributable to the owners of the parent (Millions of yen)



## Dividends

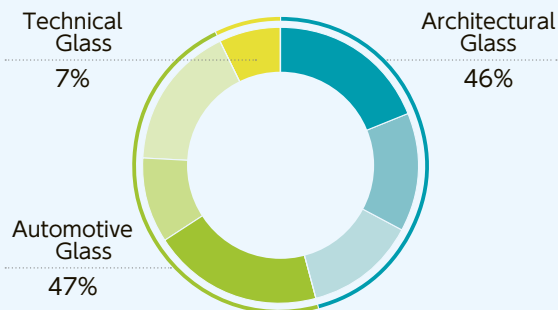
Recognizing the distribution of profit to shareholders as one of its important management objectives, the Group has upheld a stable basic policy of declaring dividend payments on common shares based on sustainable business results. To that end, dividend payments by the Group will be determined in view of the enhancement of its financial status and accumulation of the appropriate level of retained earnings for future business growth.

Regretfully, the Group decided not to declare an interim dividend for this fiscal year, taking into consideration its business results and financial situations comprehensively.

I am deeply sorry and sincerely apologize to our shareholders. Group recognizes the importance of dividends to its shareholders and will concentrate its efforts to improve profitability with a view to the resumption of dividend payment as early as possible.

I would like to ask your continued understanding and support.

## Net revenue by business



■ Architectural	Europe	19%
■ Architectural	Asia	14%
■ Architectural	Americas	13%
■ Automotive	Europe	20%
■ Automotive	Asia	10%
■ Automotive	Americas	17%
■ Technical Glass		7%

## Consolidated Income statement (summary)

	Millions of yen	
	156th (Interim period) 1 APRIL 2021 – 30 SEPTEMBER 2021	155th (Interim period) 1 APRIL 2020 – 30 SEPTEMBER 2020
Revenue	290,687	221,531
Operating profit	12,700	3,238
Profit before taxation (loss)	14,727	(15,972)
Profit for the period (loss)	9,557	(17,199)
Profit attributable to the owners of the parent (loss)	8,598	(17,315)
Basic earnings per share (loss) (yen)	84.02	(201.86)

## Consolidated Balance sheets (summary)

	Millions of yen	
	156th (Interim period) 30 SEPTEMBER 2021	155th (Fiscal 2021) 31 MARCH 2021
Non-current assets	583,808	574,978
Current assets	245,393	249,985
Total assets	829,201	824,963
Total liabilities	723,591	745,201
Total equity	105,610	79,762
Total liabilities and equity	829,201	824,963

## Consolidated Statement of cash flows (summary)

	Millions of yen	
	156th (Interim period) 1 APRIL 2021 – 30 SEPTEMBER 2021	155th (Interim period) 1 APRIL 2020 – 30 SEPTEMBER 2020
Net cash inflows from operating activities	14,475	(7,766)
Net cash outflows from investing activities	(15,861)	(26,438)
Cash flow before financing activities	(1,386)	(34,204)
Net cash inflows/(outflows) from financing activities	(11,854)	30,949
Cash and cash equivalents (net of bank overdrafts) at end of period	40,736	37,484

Note: The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) from the financial year to 31 March 2012. Operating profit in the above is defined as being operating profit stated before exceptional items.



# Our latest steps towards carbon neutrality

Addressing climate change is a particularly high priority management issue for the Group as a glass manufacturer. In the field of renewable energy, the Group is the world's leading provider of glass for thin film solar panels and is currently working to promote the expansion of renewable energy infrastructure with its core and production technologies. As a manufacturer, it is also essential that we work to reduce CO<sub>2</sub> emissions from our manufacturing processes. In this article, we present some of the latest developments in the Group's efforts towards carbon neutrality.

## Verification Test of Transparent Solar Panels for Use as Windows that Contribute to the Realization of Zero Energy Buildings

The NSG Group, in collaboration with ENEOS Holdings, Inc., has begun Japan's first test installing transparent solar panels for use as building windows\*<sup>1</sup>. These solar panels were developed by U.S.-based Ubiquitous Energy, Inc.\*<sup>2</sup>.

The panels are capable of efficiently harvesting ultraviolet and infrared light as energy sources and are as transparent as ordinary windows while excelling at thermal shield and insulating performance. They can therefore be used to achieve a high level of building energy efficiency. In addition, they have the potential to generate more power on smaller site area than horizontally-installed solar panels on the ground.

\*<sup>1</sup> Ubiquitous Energy is a U.S.-based company which develops solar panels in concert with NSG, with funding provided from ENEOS.

\*<sup>2</sup> The verification test is conducted over a one-year period from 1 September 2021 to 31 August 2022 at the NSG Group's Chiba site.



## Architectural Glass Production Powered by Hydrogen in World First

The NSG Group has successfully manufactured architectural glass at its Greengate site (St Helens, UK), using hydrogen power in a world-first trial.

As has been covered in the 155th Fiscal Period Report, the aim of this trial is to use hydrogen as an alternative energy source to natural gas and heavy oil that are the standard fuels for the glass making industries, in order to reduce CO<sub>2</sub> emissions significantly. The trial proved that it could be possible to operate the furnace with vastly reduced carbon emissions with the expertise overcoming many challenges. Going forward, the switch to hydrogen to power the production from natural gas means that float glass furnaces - which account for the majority of the Group's overall carbon emissions - would be able to operate with hugely lower emissions.



## Support for TCFD Recommendations

We have announced our support for the recommendations issued by the TCFD (Task Force on Climate-Related Financial Disclosures)\*<sup>1</sup> and joined the TCFD Consortium\*<sup>2</sup>.

With climate change becoming a serious global concern, the NSG Group, in line with the disclosure framework published by the TCFD, plans to enhance the disclosure content by quantitatively evaluating the potential impact based on climate-related risks and opportunities using climate scenario analysis and also to show a concrete roadmap toward carbon neutrality at an earlier stage.

\*<sup>1</sup> TCFD (Task Force on Climate-Related Financial Disclosures) was established by the Financial Stability Board (FSB) in 2015 at the request of the G20, to examine climate-related information disclosures and how financial institutions respond. The TCFD encourages companies and organizations to disclose information on climate-related risks and opportunities.

\*<sup>2</sup> TCFD Consortium was established in 2019 as a forum for companies and financial institutions that support the TCFD recommendations to work together to promote and discuss on effective and efficient corporate disclosure of climate-related information and their use by financial institutions.

**TCFD** TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

**TCFD Consortium**

# TOPICS

## TOPIC 1

### First Time Inclusion in FTSE Blossom Japan Index

NSG has been selected for the first time as a constituent of the FTSE Blossom Japan Index\*, a leading stock index for ESG (Environment, Society and Governance) investment.



FTSE Blossom Japan

\* FTSE Blossom Japan Index is a stock index developed by FTSE Russel, a member of the London Stock Exchange Group, and its constituent stocks are selected from Japanese companies demonstrating outstanding ESG performance. The index is used as a basis for investment decisions by ESG investment funds and investors around the world. The Government Pension Investment Fund (GPIF) also uses the FTSE Blossom Japan Index as its ESG investment selection index.

## TOPIC 3

### New SELFOC® Micro Lens as Fine as Optical Fibers



The NSG Group has successfully developed a new ultra-thin type of SELFOC® Micro Lens\* with the diameter of 125 μm (0.125mm), which is as fine as optical fibers. In the Beyond 5G era, where the number of network-connected devices as well as network traffic is expected to increase explosively, opticalization of network infrastructure is being considered a solution to address such challenges as ensuring high speed and large capacity communication and, at the same time, drastically reducing electricity consumption.

\* SELFOC® Micro Lens: Cylindrical and flat-end-shaped glass lens

## TOPIC 2

### Selection to transition to the Prime Market, a new market segment of the Tokyo Stock Exchange

With regard to the review of the market segments of the Tokyo Stock Exchange (TSE) to be effective on 4 April 2022, the Board of Directors resolved at a Board meeting held on 11 November 2021, to select and apply for the transition to the new market segment, Prime Market.

NSG received the results of its initial assessment from TSE on 9 July 2021, confirming that NSG fulfilled the requirements for the Prime Market in the new market segments.

## TOPIC 4

### Development of antibacterial and antiviral glass, NSG Purity™ for the “With Corona” Era

# NSG Purity™



The Group has developed its new antibacterial and antiviral glass, NSG Purity™ which is coated with the Group's unique sol-gel technology, in response to growing interest in antiviral materials against the backdrop of the global pandemic. In addition to its antibacterial and antiviral performance both in light and dark, NSG Purity™ demonstrates high durability and transparency. A wide range of applications are expected for this product including cover glass for smartphones and other information devices, and touch panels in public facilities.

Certified by SIAA (Society of International sustaining growth for Antimicrobial Articles) for both antibacterial and antiviral performance in June this year



\* Sol-gel technology: A material synthesis method for producing ceramics and glassy coatings, by densifying a gel synthesized by the chemical reaction of the solution raw material by heat treatment. Capable of forming highly adhesive coatings with the same silica structure as the glass substrate.

TOPIC 5

## NSG Technology Features the World's First Full Augmented Reality Head Up Display for an Automotive Bestseller in the Luxury Class



The Group has been selected by Mercedes-Benz AG to showcase their Augmented Reality Head Up Display technology on the all-new Mercedes Benz S-Class model. The NSG Group was able to introduce the pinnacle of automotive glass technology with the world's first Head Up Display powered by Augmented Reality (AR). Through our trusted development-partner relationship, NSG was selected to help make this advanced technology a reality. The complex AR-HUD utilizes an enhanced version of NSG's proprietary Advanced Press Bending\* technology that provides world-class display image quality.

\* Advanced Press Bending technology: It is a type of glass-shaping process, in which heated glass is pressed in a mold sheet by sheet. Capable of complex shaping and replicating the vehicle makers' design perfectly and accurately.

● Cover photo: **Ariake Arena**

Tokyo 2020 Olympic and Paralympic Games were held in the summer of 2021. Volleyball and wheelchair basketball matches were held in the Ariake Arena (located in Koto-ku, Tokyo), which is glazed with NSG's Pair/Multi EA low-E insulating glass unit. The Low-E coating on the outside glass prevents the heat inside from escaping and allows the solar radiation to penetrate in winter, while in summer it moderately reflects the solar heat and softens the solar radiation.



## Management (as at 30 September 2021)

NSG adopts a Company with Three Committees structure.

### Board of Directors

Independent External Director Chairman of the Board	<b>Yasuyuki Kimoto</b>		
	Nomination Committee	Audit Committee	Compensation Committee

Independent External Director	<b>Jörg Raupach Sumiya</b>		
	Nomination Committee	Audit Committee	Chairman of Compensation Committee

Independent External Director	<b>Hiroshi Ishino</b>		
	Chairman of Nomination Committee	Audit Committee	Compensation Committee

Independent External Director	<b>Kunihito Minakawa</b>		
	Nomination Committee	Chairman of Audit Committee	Compensation Committee

External Director	<b>Yoshihiro Kuroi</b>		
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Director	<b>Shigeki Mori</b>		
	Nomination Committee		Compensation Committee

### Executive Officers

Representative Executive Officer President and CEO	<b>Shigeki Mori</b>
Senior Executive Officer	<b>Tony Fradgley</b>
Senior Executive Officer	<b>Koichi Hiyoshi</b>
Senior Executive Officer	<b>Munehiro Hosonuma</b>
Senior Executive Officer	<b>Reiko Kusunose</b>
Senior Executive Officer	<b>Hiroshi Nishikawa</b>
Senior Executive Officer	<b>Rob Purcell</b>
Senior Executive Officer	<b>Phil Wilkinson</b>
Executive Officer	<b>Mike Greenall</b>
Executive Officer	<b>Shiro Kobayashi</b>
Executive Officer	<b>Yutaka Nakashima</b>
Executive Officer	<b>Iain Smith</b>
Executive Officer	<b>Milena Stanisci</b>

## Corporate Data (as at 30 September 2021)

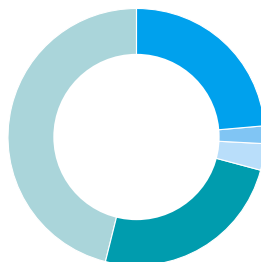
<b>Company Name</b>	Nippon Sheet Glass Co., Ltd.
<b>Head Office</b>	Sumitomo Fudosan Mita Twin Building West Wing, 5-27, Mita 3-chome, Minato-ku, Tokyo 108-6321 Japan
<b>Established</b>	22 November 1918
<b>Number of Permanent Employees (consolidated)</b>	25,315
<b>Paid-in Capital</b>	JPY 116,685 million
<b>Accounting Auditor</b>	Ernst & Young ShinNihon LLC
<b>Stock Listing</b>	Tokyo (Securities Code: 5202)
<b>Contact</b>	<a href="https://www.nsg.com/en/contact-us">https://www.nsg.com/en/contact-us</a>

## Stock Information (as at 30 September 2021)

### Number of Shares/Shareholders

<b>Authorized Number of Shares to be Issued</b>	177,500,000 shares
<b>Authorized Number of Shares to be Issued by Class</b>	Common Shares 177,500,000 shares
	Class A Shares 40,000 shares
<b>Issued Shares</b>	Common Shares 90,933,999 shares
	Class A Shares 30,000 shares
<b>Number of Shareholders</b>	Common Shares 50,680
	Class A Shares 3

### Distribution of NSG Shareholders (Common Share)



Financial institutions	23.7%
Securities companies	2.5%
Other corporate entities	3.3%
Foreign companies/individuals	24.8%
Individual investors	45.7%
Treasury Stock	0.0%



Universal design fonts that are easy to understand and easy to read are used.

## Shareholder Information

<b>Fiscal Period</b>	1 April to 31 March of the following year
<b>Ordinary General Meeting of Shareholders</b>	Held annually in June
<b>Record Dates</b>	Ordinary General Meeting of Shareholders: 31 March Dividend: 30 September and 31 March
<b>Public Notice</b>	<a href="https://www.nsg.com/">https://www.nsg.com/</a>
<b>Transfer Agent</b>	Sumitomo Mitsui Trust Bank, Limited 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan
<b>Operating Office</b>	Stock Transfer Agency Department, Sumitomo Mitsui Trust Bank, Limited 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

<b>(Mail Address)</b>	Stock Transfer Agency Department, Sumitomo Mitsui Trust Bank, Limited 8-4, Izumi 2-chome, Suginami-ku, Tokyo 168-0063, Japan
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<b>(Telephone Number)</b>	0120-782-031 (toll free in Japan)
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If you need to record any changes in your address, personal details or any other relevant matter, please contact the securities company administrating your shareholder account. If you do not use a securities company, please notify our transfer agent as shown below.

### Our Website

Further information about the Group including its financial results and latest IR information is available at <https://www.nsg.com/en>

Please scan this QR code with your smartphone to access our website.



<https://www.nsg.com/en>