NSG

GROUP

NSG Group
2023/3 Quarter 2 Results
(from 1 April 2022 to 30 September 2022)

Nippon Sheet Glass Company, Limited
10 November 2022

Shigeki Mori
Chief Executive Officer

Munehiro Hosonuma
Chief Operating Officer

Reiko Kusunose
Chief Financial Officer

Agenda

1. Financial Year ending 31 March 2023 Quarter 2 Results
2. Forecast for Financial Year ending 31 March 2023
3. Update of Transformation Initiatives under Revival Plan 24 (RP24)
4. Summary

1. Financial Year ending 31 March 2023 Quarter 2 Results

Consolidated Income Statement

Increased revenue and operating profit YoY, ahead of H1 forecast.
Price improvement and weaker JPY mitigating higher input costs.
Net loss due to impairment of goodwill and intangible assets in Automotive business Europe

(JPY bn)	Q2 (3 months)			Cumulative (6 months)			H1 Forecast
	2022/3	2023/3	Change	2022/3	2023/3	Change	
Revenue	143.0	**197.7**	54.7	290.7	**375.7**	85.0	360.0
Operating profit	5.5	**6.2**	0.6	12.7	**14.4**	1.7	11.0
ROS: Return on sales	3.9%	**3.1%**	(0.8) pt	4.4%	**3.8%**	(0.6) pt	3.1%
Exceptional items (net)	4.7	**(47.3)**	(52.0)	4.5	**(44.9)**	(49.5)	2.0
Operating profit/(loss) after exceptional items	10.2	**(41.1)**	(51.3)	17.2	**(30.5)**	(47.7)	13.0
Finance expenses (net)	(2.9)	**(3.7)**	(0.8)	(5.8)	**(6.6)**	(0.7)	(6.0)
Share of JVs and associates' profits	1.9	**1.0**	(0.9)	3.3	**3.2**	(0.1)	2.0
Other gains/(losses) on equity method investments	-	**0.5**	0.5	-	**(0.7)**	(0.7)	
Profit/(loss) before taxation	9.2	**(43.4)**	(52.6)	14.7	**(34.5)**	(49.3)	9.0
Profit/(loss) for the period	6.7	**(40.3)**	(47.0)	9.6	**(37.0)**	(46.6)	4.0
Net profit/(loss) *	6.1	**(41.2)**	(47.3)	8.6	**(38.8)**	(47.4)	3.0
EBITDA	14.6	**16.1**	1.5	31.1	**34.2**	3.0	

* Profit/(loss) attributable to owners of the parent

Sales increased in all businesses partly with weaker JPY. (Without battery separator business disposed in 2021)
Achieved H1 forecast with strong performance of Architectural and Technical covering Automotive

【Sales and Operating Profit : vs PY】

(JPY bn)	Sales	Operating profit
Architectural	+50.1	+1.9
Automotive	+36.7	(0.6)
Technical	(1.5)	(0.0)
Others	(0.3)	+0.5
Group total	**+85.0**	**+1.7**

【Sales and Operating Profit : vs H1 forecast】

(JPY bn, %)	Sales	Operating profit
Group total	+15.7 (+4%)	+3.4 (+31%)

Impairment of goodwill and intangible assets related to Automotive business in Europe

The Group's consolidated income statement is shown on slide 6.
You can see the results for the second quarter in the left,
and the first half cumulative results in the middle and H1 forecast to the right.

For the second quarter (3 months), in Automotive,
although continuously affected by vehicle production constraints in car manufacturer caused by computer components shortages,
sales volume increased and price improved to some extent
due to the successful sales price negotiations.
Continued strong performance in Architectural and Technical glass,
and weaker JPY also contributed to the revenue which improved by 54.7 billion yen,
+38% to 197.7 billion yen.
Operating profit was 6.2 billion yen which increased +11% from the previous year.
Although it was affected by soaring input costs,
sales price and volume increase mitigated their impacts.
The Group's cumulative first half revenue increased by 85.0 billion yen,
+29% to 375.7 billion yen,
and operating profit was 14.4 billion yen improved by +14%,
1.7 billion yen year on year which exceeded the first half forecast revised previously.

Net of exceptional items were loss of 44.9 billion yen,
which includes a 48.8 billion yen impairment loss of goodwill and intangible assets related to Automotive business in Europe
originally arising on the acquisition of Pilkington in 2006.
As a result, cumulative operating loss after exceptional items was 30.5 billion yen.

In the share of JVs and associates' profits, the share of profits
earned at the joint venture in Russia were once recorded, but immediately impaired,
since part of the Group's equity investment was already impaired in the previous year.

(Gains of 0.5 billion yen, as loss was recorded for the second quarter)

While loss before taxation was 34.5 billion yen,
corporate income tax was 2.5 billion yen
due to 3.1 billion yen reversal of deferred tax liabilities
related to intangible assets was recognized.
As a result, loss for the period was 37.0 billion yen
and large amount of net loss 38.8 billion yen.

Exceptional Items

Impairment of goodwill and intangible assets in Automotive business Europe. Reducing financial risk since the acquisition of Pilkington, toward the "restoration of financial stability", key initiative of RP24

(JPY bn)	2022/3	2023/3
	Q2 Cum.	Q2 Cum.
Restructuring costs	(0.1)	(0.1)
Impairment of goodwill & intangible assets	-	(48.8)
Settlement of litigation matters - net	(0.2)	2.7
Gain on disposal of subsidiaries and businesses	4.4	1.1
Others	0.4	0.1
Exceptional items - net	4.5	(44.9)

Full impairment of all remaining goodwill (JPY 36.4 bn) and intangible assets (JPY 12.4 bn) related to Automotive business in Europe, originally arising on the acquisition of Pilkington in 2006

Received settlement money following tornado damage in the USA in 2017

Gain on disposal of Automotive glass business in China
(Gain on disposal of battery separator business in the previous year)

The Group's exceptional items are presented on page 7.

Impairment loss was recorded
which represented a full impairment of all remaining goodwill for 36.4 billion yen
and intangible assets for 12.4 billion yen related to Automotive business in Europe,
originally arising on the acquisition of Pilkington in 2006.
This is due to a significant increase in discount rates
used in the preparation of this impairment test reflecting interest rate rises,
and the Group still considers the medium-term prospects of this business to be solid.
It represents full impairment of remaining goodwill and intangible assets
arising on acquisition of Pilkington related to European automotive business,
to reduce financial risk since the acquisition of Pilkington.
The Group aims to promote the "restoration of financial stability", key initiative of RP24.

Please refer to the next slide for more explanation about this impairment.

Gain on disposal of subsidiaries and businesses included
a gain on battery separator business disposal in the previous year,
and a gain on disposal for integration of Automotive Glass business in China
with a major Chinese automotive glass manufacturer this year.

Impairment of Goodwill and Intangible Assets Related to Automotive Business in Europe Arising on the Acquisition of Pilkington (Reference)

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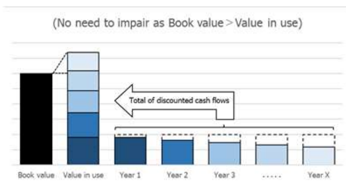
Impairment of goodwill and intangible assets mainly as a consequence of increased discount rate used in impairment test following interest rate rises in Europe.
Profit recovery in European Automotive business still expected over the medium term

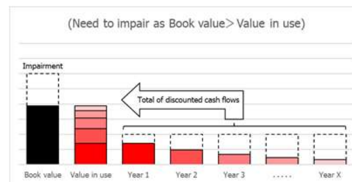
Impairment test of goodwill and intangible assets
- Based on comparison of value in use of Cash Generating Unit (CGU, business and region) with accounting book value of assets in CGU
- Value in use calculated based on future operating cash flows in each CGU discounted by appropriate discount rate

Impairment of goodwill and intangible assets related to Automotive business during Q2
- Caused mainly by discount rate increase of approx. 2% (6.92%⇒8.8%) due to interest rate rises in Europe
- Profit recovery in European Automotive business still expected over the medium term
- One-off loss from assets devaluation without any cash outflow
- Relatively small overall impact on shareholder’s equity as offset by other movements including FX caused by weaker JPY
- Representing full impairment of remaining goodwill and intangible assets arising on acquisition of Pilkington related to European automotive business to reduce financial risk

Example of impairment test



No change in future operating cash flow, but impairment caused by discount rate increase

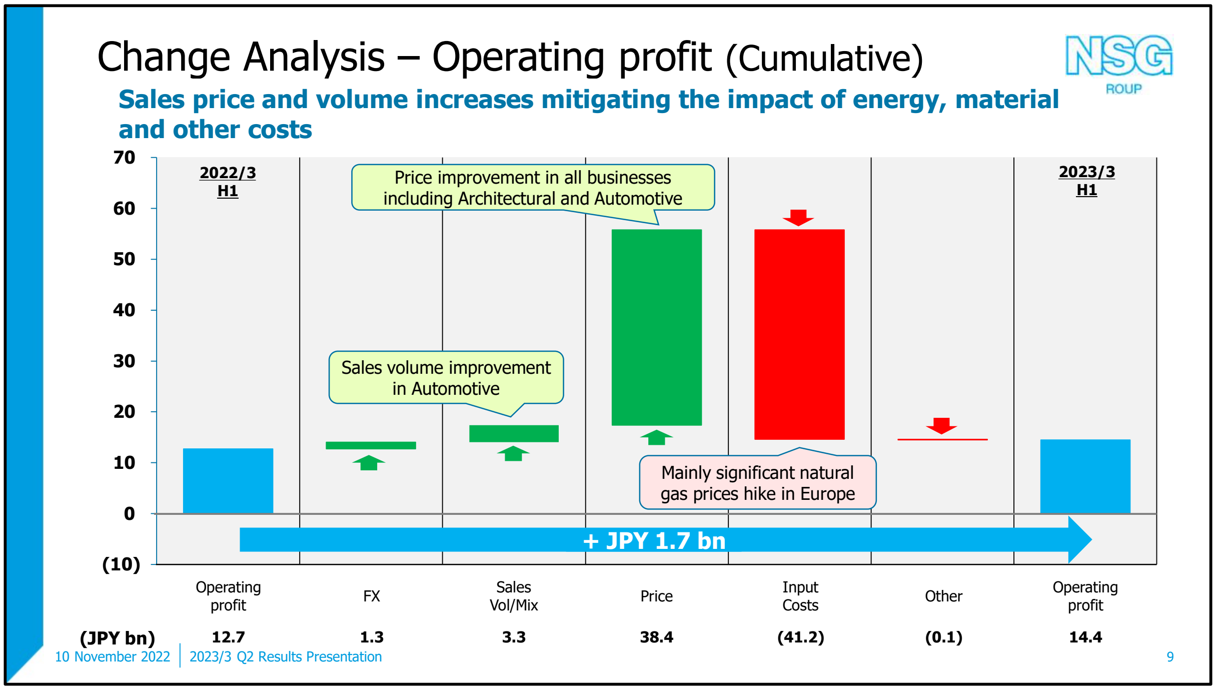


Slide 8 explains impairment of goodwill and intangible assets related to Automotive Business in Europe arising on the acquisition of Pilkington which was recorded as an exceptional loss.

First, regarding impairment test of goodwill and intangible assets, it is based on comparison of value in use of Cash Generating Unit (CGU, business and region) with accounting book value of assets in CGU. Value in use is calculated based on future operating cash flows in each CGU discounted by appropriate discount rate.

Impairment of goodwill and intangible assets related to Automotive business is caused mainly by discount rate increase of approximately 2% (6.92% to 8.8%) due to interest rate rises in Europe.
Profit recovery in European Automotive business is still expected over the medium term.
It is an one-off loss from assets devaluation without any cash outflow, and has relatively small overall impact on shareholder’s equity as offset by other movements including foreign exchange caused by weaker JPY.

Also, it represents full impairment of remaining goodwill and intangible assets arising on acquisition of Pilkington related to European automotive business, to reduce financial risk since the acquisition of Pilkington.
The Group aims to promote the restoration of a strong financial base.



Slide 9 lays out change analysis of the year-on-year operating profit movement for the first half.

A comparison is made between the operating profit before exceptional items which were 12.7 billion yen of previous year and 14.4 billion yen of this year which generated 1.7 billion yen gain.

Positive 1.3 billion yen in 'FX' is due to weaker Japanese yen which would have increased the operating profit from the previous year.

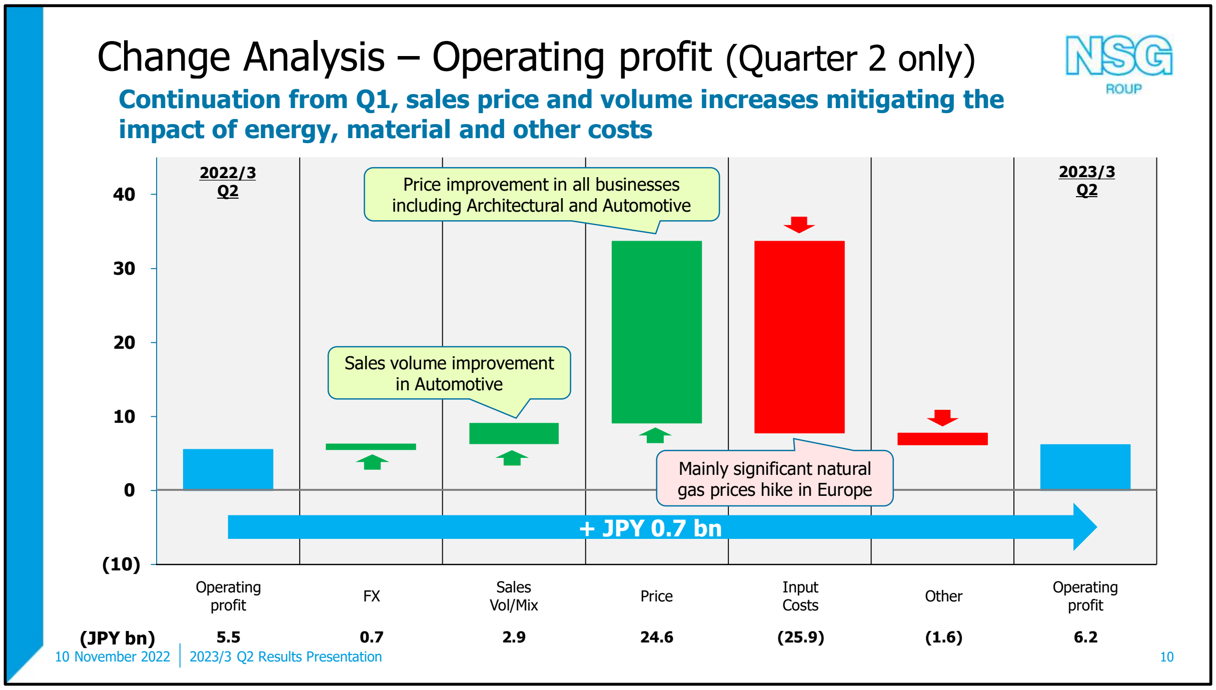
'Sales Volume/mix' improved by 3.3 billion yen, mainly reflecting sales volume increase in Automotive Glass business.

Positive 38.4 billion yen in 'Price' is due to the higher sales prices mainly in Architectural with energy surcharge system and also in Automotive where price negotiations with car manufactures were successfully implemented.

Negative 'Input costs' by 41.2 billion yen was impacted by higher energy prices and other input costs rise, especially natural gas in Europe.

Negative 0.1 billion yen in 'Other'.
The benefits of the Group's cost transformation initiatives under the Revival Plan 24 (RP24) still continue to produce the results, however, offset by cost increase of transportation and others.

Higher input costs could be offset by price improvement across the Group and sales volume/mix increased in Automotive in H1.



Slide 10 lays out change analysis of the year-on-year operating profit movement for July to September 2022.

A comparison is made between the operating profit before exceptional items which were 5.5 billion yen of previous year and 6.2 billion yen of this year which generated 0.7 billion yen gain.

Positive 0.7 billion yen in 'FX' due to weaker Japanese yen which would have increased the operating profit from the previous year.

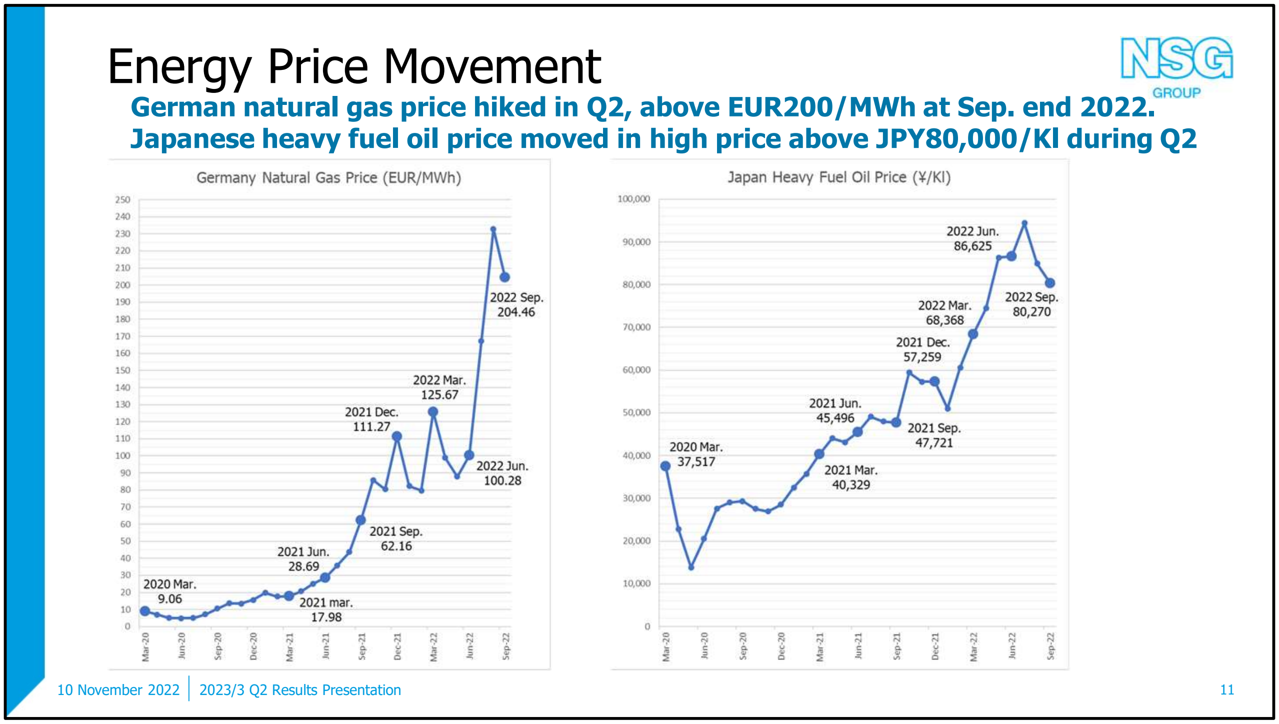
'Sales Volume/mix' improved by 2.9 billion yen, mainly reflecting sales volume increase in Automotive Glass business.

Positive 24.6 billion yen in 'Price' is due to the sales price improvement in all business including Automotive where price pass-throughs to vehicle manufacturers were realized.

Negative 'Input costs' by 25.9 billion yen was impacted by higher energy prices and other input costs hike, especially natural gas in Europe during summer.

Negative 1.6 billion yen in 'Other'.
The benefits of the Group's cost transformation initiatives under the Revival Plan 24 (RP24) still continue to produce the results, however, offset by cost increase of transportation and others.

Higher input costs could be offset by price improvements across the Group and sales volume/mix improvement in Automotive also in the second quarter.



Next slide 11 shows the movements of energy prices.

The left chart shows the movement of natural gas price in Germany,
and the right shows the heavy fuel oil in Japan.
You can see the natural gas price hike in Germany i
as well as heavy fuel oil price increase in Japan,
although they have declined a little since September.
In Germany, price of natural gas soared especially during July and August,
which was above EUR 200 / MWh at September end, although it decreased a little.

Glass Market Price Movement

Sep. 2022 German glass price increased 1.7x from Sep. 2021.
Offsetting impact of higher input costs especially natural gas

Slide 12 shows the glass market price movement in Germany.

The glass price of September 2022 increased significantly from September 20212 by 1.7 times.
This higher glass price has been offsetting the impact of input costs rise especially natural gas in Europe.

Consolidated Balance Sheet

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Shareholders' equity ratio maintained above 15% after impairment of goodwill and intangible assets, with weaker JPY, positive revaluation of energy hedge derivatives, reduction in retirement benefit obligations and hyper inflation adjustment

(JPY bn)	31 March 2022	30 September 2022	Change
Total Assets	**939.3**	**1,007.4**	**68.2**
Non-current assets	637.0	660.4	23.4
Current assets	302.2	347.0	44.8
Total Liabilities	**769.9**	**824.5**	**54.5**
Current liabilities	306.7	379.0	72.3
Non-current liabilities	463.2	445.4	(17.8)
Total Equity	**169.4**	**183.0**	**13.6**
Shareholders' equity	145.3	151.9	6.6
Shareholders' Equity Ratio	**15.5%**	**15.1%**	**(0.4)pt**
Net Debt	**365.2**	**375.0**	**9.8**

Decrease in goodwill and intangible assets with impairment, increase with weaker JPY and positive revaluation of hedge derivatives

Mainly increase in inventory, and trade and other receivables

Mainly increase in loans, and trade and other payables

Impairment offset by weaker JPY and positive revaluation of energy hedge derivatives, reduction in retirement benefit obligations and hyper inflation adjustment. Shareholders' equity ratio maintained above 15%

Increase mainly by free cash outflow and weaker JPY

The Group's consolidated balance sheet is presented on slide 13.

The Group's non-current assets increased by 23.4 billion yen from March
mainly due to depreciation of JPY and financial derivative assets
which reflected worldwide energy price hike,
offset by the impact of goodwill and intangible assets impairment.

Current assets increased by 44.8 billion yen from March
mainly due to increase of inventory reflecting higher energy and material costs,
and trade and other receivables.

Current liabilities increased by 72.3 billion yen from March
mainly due to increase in loans, and trade and other payables.

Shareholders' equity improved further by 6.6 billion yen to 151.9 billion yen,
reflecting positive revaluation of energy hedge derivatives,
decrease of retirement benefit obligations, depreciated yen,
and adjustment of hyper inflation, despite the recognition of the impairment.

As a result, shareholders' equity ratio maintained 15.1%
even after recording significant impairment loss,
which is still securing above a financial target of RP24, more than 10%.

Net Debt increased by 9.8 billion yen mainly reflecting free cash outflow and weaker JPY.

Consolidated Statement of Cash Flows

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Free cash outflow due to working capital movement, recovering during Q2.
Aiming to achieve free cash inflow and RP24 target for the full-year, consistent with the previous year

(JPY bn)	Q2 (3 months)			Cumulative (6 months)		
	2022/3	2023/3	Change	2022/3	2023/3	Change
Net cash flows from operating activities	**15.2**	**14.6**	**(0.6)**	**14.5**	**11.4**	**(3.1)**
included above: Net change in working capital	3.3	4.7	1.4	(8.7)	(15.4)	(6.7)
Net cash flows from investing activities	**(7.0)**	**(11.3)**	**(4.2)**	**(15.9)**	**(20.9)**	**(5.1)**
included above: Purchase of property, plant and equipment	(12.0)	(10.0)	2.0	(20.3)	(19.1)	1.2
Free cash flow	**8.2**	**3.4**	**(4.8)**	**(1.4)**	**(9.5)**	**(8.1)**
Net cash flows from financing activities	**(8.7)**	**(0.5)**	**8.2**	**(11.9)**	**1.5**	**13.4**
Increase/(decrease) in cash and cash equivalents	**(0.5)**	**2.8**	**3.3**	**(13.2)**	**(8.0)**	**5.2**
Cash and cash equivalents at the end of the period				**40.7**	**55.2**	**14.5**

Improvement in Q2, though working capital increase in H1

Gain on disposal of battery separator business in 2022/3

Almost same level with 2022/3

FCF on the recovery track.
Aiming to achieve free cash inflow for the full-year

Consolidated statement of cash flows is discussed in slide 14.

Net cash flows from operating activities for the first half were inflow of 11.4 billion yen, decreased by 3.1 billion yen compared to the previous year.
However, for the second quarter, they were inflow of 14.6 billion yen in improving trend mainly due to decreased working capital.

Net cash flows from investing activities for the first half cumulative were decreased by 5.1 billion yen compared to the previous year.
This difference mainly came from the gain on disposal of battery separator recorded in the previous year.

As a result, free cash flow was outflow of 9.5 billion yen for the first half cumulatively, but recovery was seen in the second quarter as it was inflow of 3.4 billion yen.
The Group continues to aim to achieve a financial target of RP24,
more than 10.0 billion yen inflow at the year end, as we implemented in the previous year.

Segmental Information

(JPY bn)	2021/3 Q2 Cum.				2022/3 Q2 Cum.			2023/3 Q2 Cum.		
	Revenue	%	Operating profit	Operating profit after COVID*	Revenue	%	Operating profit	Revenue	%	Operating profit
Architectural	**99.0**	**45%**	**7.3**	**1.9**	**132.0**	**45%**	**13.6**	**182.1**	**48%**	**15.5**
Europe	38.2	17%			54.9	19%		78.8	21%	
Asia	37.8	17%			40.3	14%		49.0	13%	
Americas	23.0	10%			36.9	13%		54.3	14%	
Automotive	**105.3**	**48%**	**(2.4)**	**(9.9)**	**135.2**	**47%**	**(1.1)**	**171.9**	**46%**	**(1.7)**
Europe	43.3	20%			59.1	20%		69.9	19%	
Asia	25.8	12%			28.0	10%		32.4	9%	
Americas	36.2	16%			48.2	17%		69.6	19%	
Technical Glass	**16.5**	**7%**	**2.5**	**2.2**	**21.7**	**7%**	**5.7**	**20.2**	**5%**	**5.7**
Europe	2.7	1%			3.9	1%		4.6	1%	
Asia	13.3	6%			17.2	6%		14.8	4%	
Americas	0.5	0%			0.6	0%		0.8	0%	
Other	**0.6**	**0%**	**(4.1)**	**(3.8)**	**1.8**	**1%**	**(5.6)**	**1.5**	**0%**	**(5.1)**
Total	**221.4**	**100%**	**3.2**	**(9.6)**	**290.7**	**100%**	**12.7**	**375.7**	**100%**	**14.4**

*Operating profit after COVID-19 related exceptional items

Slide 15 lays out Q2 cumulative revenue and profit by the business segments for last three years.
I will explain each SBU results from next slide.

Architectural (Cum. Rev▲, Profit▲: Q2 Rev▲, Profit▼)

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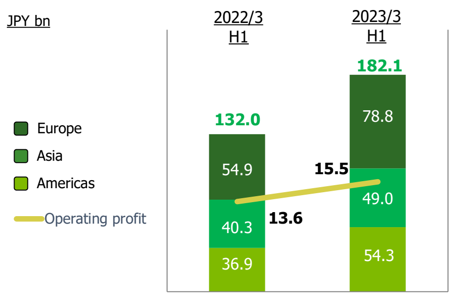
Significant revenue improvement with continued favourable demand in all regions and foreign exchange movement. Cumulative operating profit also improved with price increase mitigating input cost rises particularly energy



(JPY bn)	Q2 (3 months)			Cumulative (6 months)		
	2022/3	2023/3	Change	2022/3	2023/3	Change
Revenue	**67.5**	**96.5**	**29.0**	**132.0**	**182.1**	**50.1**
Europe	27.1	40.6	13.5	54.9	78.8	24.0
Asia	21.0	26.1	5.1	40.3	49.0	8.7
Americas	19.4	29.8	10.4	36.9	54.3	17.4
OP	**7.5**	**6.6**	**(0.9)**	**13.6**	**15.5**	**1.9**

Europe (Cum. Rev▲, Profit▼ : Q2 Rev▲, Profit▼)

- Sign of slight demand decrease
- Worse profitability due to the time lag between spike in input and logistics costs, particularly natural gas and price pass-through

Asia (Cum. Rev▲, Profit▲: Q2 Rev▲, Profit▲)

- Favourable demand continuing including Japan, with good progress in price improvement
- Robust demand for solar energy glass

Americas (Cum. Rev▲, Profit▲: Q2 Rev▲, Profit▲)

- Increased sales price reflecting strong demand, although shipments constrained in North America
- Continued strong demand of solar energy glass
- Strong demand continuing in South America

Please move to slide 16 – from this slide the results of each business will be discussed.

Architectural revenues have been improving significantly from the previous year with strong demand, and price improvement in all regions together with weaker JPY. Operating profit improvement was maintained except for Europe, as energy price increases were offset by sales price increases reflecting strong demand and supply balance.

Revenues in Europe increased but operating profit decreased, compared to the previous year.
Strong demand continued not only in new construction but also in renovation markets.
However, profitability fell due to volume decline during the second quarter, as rising inflation and interest rates dampened business and consumer confidence.
Furthermore, owing to the time lag between the spike of input and logistic costs, particularly for natural gas in summer season, and price pass-through.

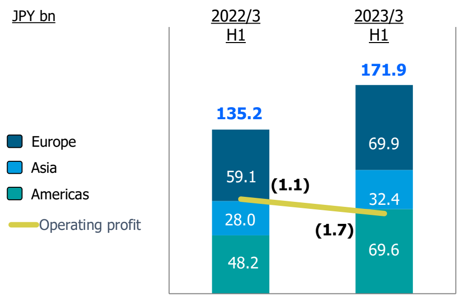
In Asia, revenues and profits showed better results than previous year.
Volume and price improvement progressed in Japan, and positive performance continued in other countries reflecting economic recovery.
Also, robust demand for solar energy glass continued.

In Americas, revenues and profits were better than the previous year.
In North America, sales price increased reflecting strong demand and energy surcharge system, while shipments constrained to some extent by shortages of transportation capacity.
Strong demand of solar energy glass continued.

In South America, strong demand is continuing.

Automotive (Cum. Rev▲, Profit▼ : Q2 Rev▲, Profit▲)

Gradual resolving of constrained vehicle build due to parts shortage in Europe while continuously affecting. Successful agreement in price improvement negotiation with car manufactures partly realized, whilst continuous impacts of higher input costs



(JPY bn)	Q2 (3 months) 2022/3	2023/3	Change	Cumulative (6 months) 2022/3	2023/3	Change
Revenue	**64.3**	**90.3**	**26.0**	**135.2**	**171.9**	**36.7**
Europe	27.9	36.2	8.3	59.1	69.9	10.8
Asia	12.9	17.9	5.0	28.0	32.4	4.4
Americas	23.6	36.2	12.7	48.2	69.6	21.4
OP	**(2.3)**	**(1.0)**	**1.3**	**(1.1)**	**(1.7)**	**(0.6)**

Europe (Cum. Rev▲, Profit▼: Q2 Rev▲, Profit▲)
Asia (Cum. Rev▲, Profit▼: Q2 Rev▲, Profit▲)
Americas (Cum. Rev▲, Profit▼: Q2 Rev▲, Profit▼)

- Seeing gradual recovery in Europe while continuous constrained vehicle build due to shortage of component parts
- Cold repair in Maizuru completed
- Favourable demand in North America
- Successful agreement in sales price improvement negotiations with several vehicle manufacturers, partly realized in Q2
- Input cost rises were not fully mitigated by continuous cost reduction efforts and expansion of value-added products

Slide 17 discusses the results of the Group’s Automotive business.

In Automotive business, revenue for the first half increased from the previous year partly due to foreign exchange movement, while restriction of vehicle build and higher input costs led to operating loss. However, for the second quarter, operating loss shrank due to sales volume improvement and the realization of incremental selling price for vehicle manufacturers.

In Europe, the Group is seeing signs of recovery from the second quarter while continuous constrained vehicle build due to shortage of component parts mainly semiconductors.

In Japan, cold repair in Maizuru was completed, which is expected to contribute to profitability from H2 through improved production efficiency and cost saving.

In Americas, strong demand is continuing.

The price improvement negotiations with vehicle manufacturers aiming to mitigate rising input costs have been reaching agreements across the regions, and some realizations were seen in the second quarter.

Although continuous cost reduction efforts and expansion of value-added products are being promoted, the impacts of input costs rises were not fully mitigated, and led to operating loss for the period.

Technical Glass (Cum. Rev▲, Profit▲: Q2 Rev▲, Profit▲)

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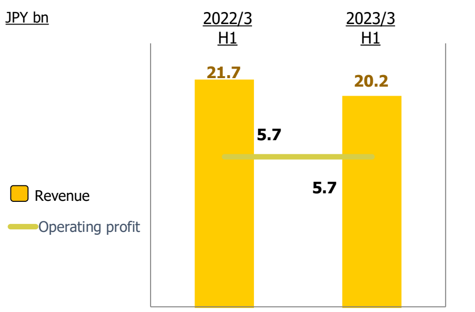
Improved revenue and profit, with continuous stable demand, cost reduction efforts and weaker JPY
(like-for-like basis without battery separator business disposed in September 2021)



(JPY bn)	Q2 (3 months)			Cumulative (6 months)		
	2022/3	2023/3	Change	2022/3	2023/3	Change
Revenue	10.3	10.2	(0.1)	21.7	20.2	(1.5)
OP	2.9	2.5	(0.4)	5.7	5.7	(0.0)

- Further improvement in fine glass based on continued cost reduction efforts and better sales mix
- Demand for printer lenses supported by solid demand while affected by semiconductor shortage
- Stable demand for glass cord particularly in replacement market
- Demand for Metashine® slightly recovered for automotive and cosmetic applications

Slide 18 lays out the results of the Technical Glass business.

Revenue and profit are improved from the previous year,
reflecting continuous stable demand and cost reduction efforts and depreciation of JPY.
(This is like-for-like basis without battery separators business disposed in last September.)

Fine glass business improved further based on continued cost reduction efforts
and better sales mix.

Printer lenses sales volume is supported by solid demand
while affected by semiconductor shortage.

Glass cord had stable demand in replacement market.
Demand for Metashine® recovered slightly for automotive paint and cosmetic applications.

Overall, this business maintained high profitability.

2. Forecast for Financial Year ending 31 March 2023

Assumptions for 2023/3 Forecast

NSG GROUP

Group	**Full-year sales forecast revised upward reflecting H1 actuals, but operating profit forecast remained considering uncertain business environment** • Depreciation of JPY continuing • Assume continuous input cost increases, with higher energy costs and worldwide inflation trend • Uncertain business environment in H2 still anticipated with potential recessionary conditions caused by rising interest rates • Focusing on profitability improvement through continuous cost reduction, expansion of VA products and price increase across the whole Group
Architectural Glass	**Favourable demand and supply situation expected, while impact of higher energy cost and potential recession concerned in Europe and the USA** • Europe : price pass-through also continued while uncertainty of energy supply, input cost hike continuing. Recession concerned • Asia : volume and price improving in Japan. Cold repair in Vietnam progressing • NA : favourable domestic market expected though recession concerned due to interest rates hike • SA : continued tight demand and supply environment. Contribution of new float furnace in Argentina SOP • Solar energy glass : continued robust demand. New installation of online coating capacity in Malaysia
Automotive Glass	**Affected by car component shortage and higher input costs, despite strong vehicle demand, continuous negotiation for price increase** • Anticipating continued strong vehicle demand and car inventory replenishment • Sales price improvement realizing gradually as negotiations with customers progressing further • Continued component shortages to be resolved gradually although a little behind original forecast • Cold repair in Maizuru completed, expected to contribute to profitability improvement from H2 • Aiming for operating profit with cost reduction efforts, expansion of VA products and price increase offsetting higher energy and material costs
Technical Glass	**Continuous overall stable business environment for the time being** • Continued cost reduction efforts and better sales mix contributing to fine glass • Monitoring impact of components shortage in customers for printer lens • Stable demand mainly in replacement market for glass cord

10 November 2022 | 2023/3 Q2 Results Presentation 20

The following slides discuss the full-year forecast for financial year ending March 2023.
Slide 20 shows the assumptions used for the forecast.

The Group has revised upward its forecast for the revenue of the full year, reflecting weaker JPY and the relatively strong performance recorded during H1.
However, operating profits forecast for the full-year has been remained following the previous one.
This is because that we still need to see an uncertain business environment in H2, such as soaring energy prices, rising input costs reflecting global inflation trends, and recession risks.
The Group will continue to focusing on profitability improvement through cost reduction, expansion of value-added products and price increase across the whole Group to mitigate the impacts of these potential risk factors.

When we discuss by each business,
In Architectural business;
In Europe,
anxiety about energy supply centered on natural gas and rising raw material costs remain, and we will continue price pass-through as countermeasures.
On the other hand, demand decrease due to recession is concerned.
In Japan,
in addition to incremental volume, effects of price increase will be expected from October.
In North America, continuous strong demand is expected, though recession concern owing to rapid rise in interest rates.
In South America, the tight supply and demand environment will continue, and the operation of the new float line in Argentina is expected to contribute from H2.
In solar energy glass, continued strong demand is assumed.
A float line in Malaysia plans to install online coating capacity

and start production of glass for solar panel during the fourth quarter ending March 2024.

In Automotive business;
Although car production constraints
due to component shortage is assumed to be resolved gradually,
impact of higher energy and material costs are continuing.
On the other hand, sales price improvements from vehicle manufacturers were
partly realized in Q2, and the Group will continue negotiations in H2 as well.
In Japan, cold repair in Maizuru was successfully completed,
and contribution to profitability improvement is expected
through production improvement and cost saving from H2.
The Group aims to return to operating profit with continuous cost reduction efforts,
expansion of value-added products and sales price increase.

In Technical Glass business; stable business environments are assumed to continue
for the time being.

The profit and loss items below operating loss after exceptional
have been revised downward reflecting the impairment loss recorded in H1.

Forecast for Financial Year ending 31 March 2023

Full-year revenue forecast revised upward based on relatively strong performance in H1.
Operating profit forecast remained considering uncertainty with business environment in H2

(JPY bn)	2023/3 H1 fcst (Previous)	2023/3 H1 Act	2023/3 Full-year fcst (Previous)	2023/3 Full-year fcst (Revised)	2022/3 Full-year Act
Revenue	360.0	**375.7**	690.0	**740.0**	600.6
Operating profit	11.0	**14.4**	18.0	**18.0**	20.0
Exceptional items	2.0	**(44.9)**	2.0	**(45.0)**	3.6
Operating profit/(loss) after exceptional items	13.0	**(30.5)**	20.0	**(27.0)**	23.6
Finance expenses (net)	(6.0)	**(6.6)**	(13.0)	**(13.0)**	(12.5)
Impairment of financial receivables owed by joint ventures and associates	-	**-**	-	**-**	(3.4)
Share of JVs and associates' profits	2.0	**3.2**	4.0	**5.0**	7.5
Other gains/(losses) on equity method investments		**(0.7)**			(3.4)
Profit/(loss) before taxation	9.0	**(34.5)**	11.0	**(35.0)**	11.9
Profit/(loss) for the period	4.0	**(37.0)**	5.0	**(38.0)**	6.8
Net profit/(loss) *	3.0	**(38.8)**	4.0	**(41.0)**	4.1

*Profit/(loss) attributable to owners of the parent

Slide 21 shows the forecast for the full-year ending March 2023 based on the assumptions.

You can see the result for the first half ending March 2023 to the left,
and the forecast for the full-year to the right.

As explained in the previous slide,
the Group has revised its forecast of revenue for the full-year,
but operating profits forecast is unchanged.

Together with the initiatives according to RP24,
the group will continue to focus on profitability improvement through cost reduction effort,
expansion of value-added products and price increase across the whole Group
to mitigate the impacts of potential risk factors and achieve full-year forecast.

3. Update of Transformation Initiatives under Revival Plan 24 (RP24)

Please move to slide 23.
It shows the main progress of transformation initiatives taken under the Revival Plan 24 (RP24) starting from the financial year ended March 2022.

Although there are headwinds such as recession instability,
restrictions on automobile production, and increase of input costs,
we continue and promote initiatives in the second year of the mid-term management plan RP24,
and the Group maintained shareholder's equity ratio as 15.1%
which is above the financial target of 10%, even after recording significant impairment loss.

In 'Business structure reform' in 'Three reforms',
the Group is expanding value-added businesses
and developing new businesses for sustainable growth.
While solar energy glass has been already contributing to the Group's profit and environment,
as explained, a float line at the Malaysia, plans to install online coating capacity,
and start production of glass for solar panel during the fourth quarter ending March 2024,
in response to the capacity increase in Asia by First Solar Inc.
As announced on 28 October,
construction of new float furnace in Argentina was successfully completed,
and started production from the third quarter.
The Group will promote the expansion of our business in South America,
where active construction demand exceeds supply for glass.

In 'Two key initiatives', 'Restoration of financial stability' progressed.
Shareholder's equity ratio can be maintained above the financial target of 10%
after significant impairment loss recorded
with the promotion of 'Cost structure reform' and 'Business structure reform',

and support from change of the business environments.

The Group aims to promote the restoration of a strong financial base
with reducing financial risks
which lasted for a long time since the acquisition of Pilkington,
while taking advantage of vehicle build recovery
and some realization of price pass-through.

For ‘Transformation into more profitable business portfolio’,
the Group has contracted
the integration of the Group’s Automotive business in China
with a major Chinese automotive glass manufacturer.

4. Summary

Summary

1. **Quarter 2 results of Financial Year ending March 2023**
   - Increased revenue and operating profit YoY, ahead of H1 forecast
   - Continued strong performance in Architectural and Technical Glass. Partially realized price pass-through in Automotive
   - Higher energy, materials and other costs offset by sales price and volume improvements
   - Recording impairment loss in Automotive business Europe mainly due to interest rate rises. Reducing financial risk since the acquisition of Pilkington, toward the restoration of a strong financial base
   - Maintaining shareholder's equity ratio above 15% more than RP24 target
2. **Forecast for Financial Year ending March 2023**
   - Full-year revenue forecast revised upward reflecting relatively strong performance in H1 and weaker JPY
   - Full-year operating profits forecast remained considering H2 business environment uncertainty
   - Continuous impact of input cost increases anticipated, with higher energy costs and worldwide inflation trend
   - Focusing on profitability improvement through continuous cost reduction, expansion of VA products and price increase across the whole Group
3. **Update of Transformation Initiatives under Revival Plan 24**
   - Business structure reform: New 2nd float furnace construction in Argentina successfully completed, production contributing in H2
   - Restoration of financial stability : Maintaining shareholders' equity ratio above 15% after recording impairment loss of goodwill and intangible assets related to the Automotive business in Europe
   - Transformation into more profitable business portfolio : Integration of the Group's Automotive Glass business in China with a major Chinese automotive glass manufacturer contracted

Notice

The projections contained in this document are based on information currently available to us and certain assumptions that we consider to be reasonable. Hence the actual results may differ. The major factors that may affect the results are the economic and competitive environment in major markets, product supply and demand shifts, currency exchange and interest rate fluctuations, changes in supply of raw materials and fuel and changes and laws and regulations, but not limited.

Nippon Sheet Glass Company, Limited

Appendices

- Consolidated Income Statement – Quarterly Trend
- Revenue & Operating Profit – Quarterly Trend
- Segmental Information by Quarter
- Revenue & Operating Profit – by Region
- Foreign Currency Exchange Rates and Sensitivity
- Depreciation & Amortization, Capital Expenditures, R&D Expenditures
- Energy Cost Breakdown
- News Releases

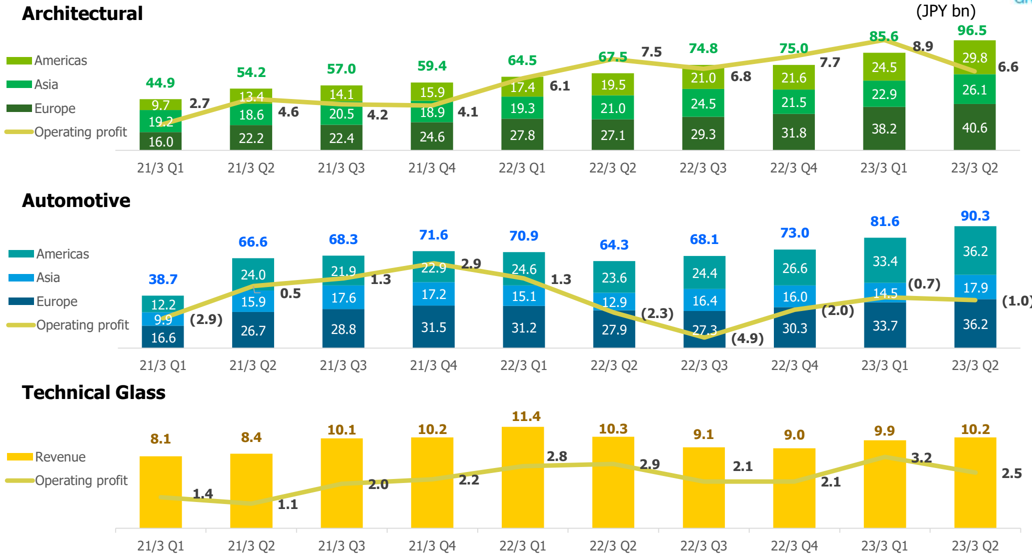
Consolidated Income Statement – Quarterly Trend

(JPY bn)	2021/3				2022/3				2023/03	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Revenue	**91.9**	**129.7**	**135.8**	**141.9**	**147.7**	**143.0**	**152.3**	**157.6**	**177.9**	**197.7**
Operating profit/(loss)	**(0.6)**	**3.8**	**4.8**	**5.0**	**7.2**	**5.5**	**1.8**	**5.5**	**8.3**	**6.2**
Operating profit margin	**–**	**2.9%**	**3.5%**	**3.6%**	**4.8%**	**3.9%**	**1.2%**	**3.5%**	**4.6%**	**3.1%**
Exceptional items (net)	(0.1)	(0.8)	1.0	(6.1)	(0.2)	4.7	(0.2)	(0.7)	2.3	(47.3)
Operating profit/(loss) after exceptional items	**(12.2)**	**1.7**	**4.6**	**(3.1)**	**7.0**	**10.2**	**1.7**	**4.8**	**10.6**	**(41.1)**
Finance expenses (net)	(2.4)	(3.0)	(2.1)	(3.5)	(2.9)	(2.9)	(3.2)	(3.4)	(2.8)	(3.7)
Share of JVs and associates' profits	(0.4)	0.2	1.0	1.3	1.5	1.9	2.2	1.9	2.2	1.0
Other gains/(losses) on equity method investments	-	-	-	-	-	-	-	(3.4)	(1.2)	0.5
Profit/(loss) before taxation	**(14.9)**	**(1.1)**	**3.5**	**(4.7)**	**5.5**	**9.2**	**0.7**	**(3.6)**	**8.8**	**(43.4)**
Profit/(loss) for the period	**(16.5)**	**(0.7)**	**3.7**	**(2.8)**	**2.9**	**6.7**	**1.0**	**(3.8)**	**3.3**	**(40.3)**
Net profit/(loss) *	**(16.4)**	**(0.9)**	**3.4**	**(3.0)**	**2.5**	**6.1**	**0.0**	**(4.5)**	**2.4**	**(41.2)**
EBITDA	**6.1**	**12.7**	**13.5**	**14.5**	**16.5**	**14.6**	**11.1**	**14.4**	**18.0**	**16.1**

*Profit/(loss) attributable to owners of the parent

Revenue & Operating Profit – Quarterly Trend

(JPY bn)



Segmental Information by Quarter

(JPY bn)	2021/3					2022/3					2023/3		
	Q1	Q2	Q3	Q4	Cum.	Q1	Q2	Q3	Q4	Cum.	Q1	Q2	Cum.
Revenue: Architectural	**44.9**	**54.2**	**57.0**	**59.4**	**215.5**	**64.5**	**67.5**	**74.8**	**75.0**	**281.8**	**85.6**	**96.5**	**182.1**
Europe	16.0	22.2	22.4	24.5	85.2	27.8	27.1	29.3	31.8	116.0	38.2	40.6	78.8
Asia	19.2	18.6	20.5	18.9	77.2	19.3	21.0	24.5	21.5	86.2	22.9	26.1	49.0
Americas	9.7	13.4	14.1	16.0	53.1	17.4	19.4	21.0	21.6	79.5	24.5	29.8	54.3
Operating profit	**2.7**	**4.6**	**4.3**	**4.1**	**15.7**	**6.1**	**7.5**	**6.8**	**7.7**	**28.1**	**8.9**	**6.6**	**15.5**
OP after COVID*	**(2.2)**	**4.1**	**3.8**	**3.4**	**9.1**	-	-	-	-	-	-	-	-
Revenue: Automotive	**38.7**	**66.7**	**68.2**	**71.6**	**245.2**	**70.9**	**64.3**	**68.1**	**73.0**	**276.2**	**81.6**	**90.3**	**171.9**
Europe	16.6	26.7	28.8	31.5	103.6	31.2	27.9	27.3	30.3	116.7	33.7	36.2	69.9
Asia	9.9	15.9	17.6	17.3	60.6	15.1	12.9	16.4	16.0	60.4	14.5	17.9	32.4
Americas	12.2	24.1	21.9	22.9	81.0	24.6	23.6	24.4	26.6	99.2	33.4	36.2	69.6
Operating profit	**(2.9)**	**0.5**	**1.3**	**2.9**	**1.8**	**1.3**	**(2.3)**	**(4.9)**	**(2.0)**	**(7.9)**	**(0.7)**	**(1.0)**	**(1.7)**
OP after COVID*	**(9.3)**	**(0.6)**	**0.4**	**1.7**	**(7.8)**	-	-	-	-	-	-	-	-
Revenue: Technical	**8.1**	**8.4**	**10.1**	**10.2**	**36.8**	**11.4**	**10.3**	**9.1**	**9.0**	**39.8**	**9.9**	**10.2**	**20.2**
Europe	1.3	1.4	1.8	1.9	6.4	2.1	1.8	2.0	2.0	7.9	2.1	2.5	4.6
Asia	6.5	6.7	8.0	8.1	29.3	9.0	8.2	6.8	6.6	30.6	7.5	7.3	14.8
Americas	0.3	0.3	0.3	0.3	1.1	0.3	0.3	0.3	0.4	1.3	0.4	0.5	0.8
Operating profit	**1.4**	**1.1**	**2.0**	**2.2**	**6.7**	**2.8**	**2.9**	**2.1**	**2.1**	**9.9**	**3.2**	**2.5**	**5.7**
OP after COVID*	**1.2**	**1.0**	**2.1**	**2.2**	**6.5**	-	-	-	-	-	-	-	-
Revenue: Other	**0.2**	**0.4**	**0.5**	**0.6**	**1.7**	**0.9**	**0.8**	**0.3**	**0.7**	**2.7**	**0.8**	**0.7**	**1.5**
Operating profit	**(1.8)**	**(2.3)**	**(2.8)**	**(4.2)**	**(11.1)**	**(3.1)**	**(2.5)**	**(2.2)**	**(2.4)**	**(10.1)**	**(3.1)**	**(1.9)**	**(5.1)**
OP after COVID*	**(1.8)**	**(2.0)**	**(2.7)**	**(4.3)**	**(10.8)**	-	-	-	-	-	-	-	-
Revenue: Total	**91.9**	**129.7**	**135.8**	**141.9**	**499.2**	**147.7**	**143.0**	**152.3**	**157.6**	**600.6**	**177.9**	**197.7**	**375.7**
Operating profit	**(0.6)**	**3.8**	**4.8**	**5.0**	**13.1**	**7.2**	**5.5**	**1.8**	**5.5**	**20.0**	**8.3**	**6.2**	**14.4**
OP after COVID*	**(12.1)**	**2.5**	**3.6**	**3.0**	**(3.0)**	-	-	-	-	-	-	-	-

*Operating profit after COVID-19 related exceptional items

Revenue & Operating Profit – by Region

(JPY bn)	2022/3 H1			2023/3 H1			Change	
	Revenue	%	Operating profit/(loss)	Revenue	%	Operating profit/(loss)	Revenue	Operating profit/(loss)
Europe	**117.9**	**41%**	**2.9**	**153.3**	**41%**	**1.0**	**35.5**	**(1.8)**
Asia	**85.4**	**29%**	**9.8**	**96.1**	**26%**	**11.4**	**10.7**	**1.6**
Americas	**85.7**	**29%**	**5.6**	**124.7**	**33%**	**7.1**	**39.1**	**1.5**
Other *	1.8	1%	(5.6)	1.5	0%	(5.1)	(0.3)	0.5
Total	**290.7**	**100%**	**12.7**	**375.7**	**100%**	**14.4**	**85.0**	**1.7**

* Revenue and Operating loss of Other Operation are not split by geographical regions.

Foreign Currency Exchange Rates and Sensitivity

Average rates used

	2021/3				2022/3				2022/3	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
GBP	133	135	136	139	153	152	153	153	163	163
EUR	118	121	123	124	132	131	131	130	138	139
USD	107	106	106	106	109	109	112	112	129	134
BRR	19.9	19.8	19.7	19.7	20.6	20.8	20.7	21.0	26.4	26.4
ARS	Closing rates are applied – hyperinflation									

Closing rates used

	2021/3				2022/3				2022/3	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
GBP	132	135	141	152	153	150	156	160	165	161
EUR	121	124	127	130	132	129	131	136	142	141
USD	107	105	103	111	111	112	116	122	136	145
BRR	19.9	18.7	19.8	19.1	22.3	20.6	20.4	25.5	26.2	26.7
ARS	1.53	1.38	1.22	1.20	1.16	1.13	1.12	1.10	1.09	0.98

Sensitivity
Increase (decrease) if the value of the yen depreciates by 1% - all other things being equal

	2022/3
Equity	JPY 4.0 billion
Profit for the period	Improve by JPY 0.1 billion

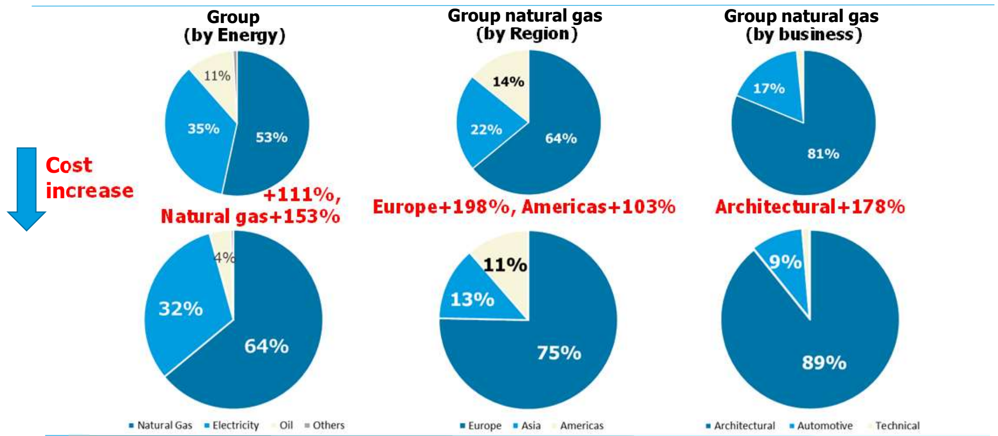
Depreciation & Amortization, Capital Expenditures, R&D Expenditures

(JPY bn)	2022/3 Q2	2023/3 Q2	2023/3 Full-year Forecast
Depreciation & Amortization	**18.4**	**19.7**	**39.0**
Capital expenditures	**10.2**	**17.6**	**40.0**
Ordinary	9.3	15.1	
Strategic projects and other	0.9	2.5	
R&D expenditures	**4.1**	**4.6**	**9.5**
Architectural	1.2	1.4	
Automotive	1.2	1.3	
Technical Glass	0.5	0.5	
Other	1.2	1.4	

Energy Cost Breakdown (2022/3→2023/3)

Energy costs +111%* YoY for the Group, +153% for natural gas.
Natural gas prices remaining high, now accounting for 64% of the Group's total energy spend.
Significant impacts in Europe and Americas by region, and in Architectural by business

2022/3 (Q2 Cumulative)

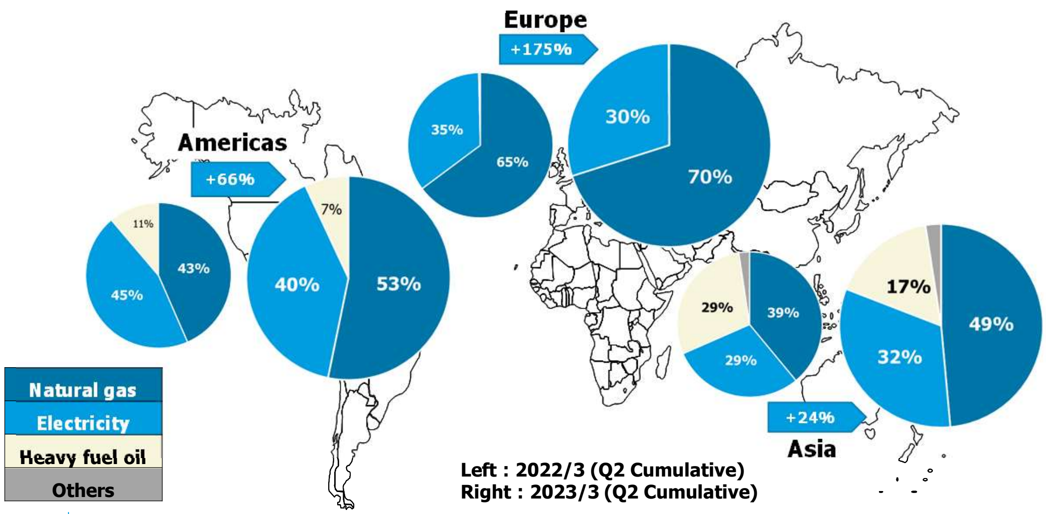


2023/3 (Q2 Cumulative)

* +90% without impact of weaker JPY

Energy Cost Breakdown (by region)

Significant impact to worldwide energy costs by natural gas price hike, especially in Europe and Americas



News Releases — May to October 2022

(https://www.nsg.com/en/media)

18-May-22	NSG Group Launches New High-Performance Materials Website
26-May-22	NSG Group - New Solar Array in Rossford, Ohio
31-May-22	Reform and Integration of Automotive Glass Business in China
28-Jun-22	SBTi Approves NSG Group's Revised GHG Reduction Target
8-Jul-22	Corporate Governance Report submitted to the Tokyo Stock Exchange
5-Aug-22	New Production Line of Solar Glass in Malaysia
22-Aug-22	Elegant, aurora-like luminosity is achieved with METASHINE® Aurora Series glass-flake effects pigments. Aimed primarily toward Point Makeup Cosmetics, NSG uses specially formulated Optical Brightening Materials.
13-Sep-22	ESG Website Wins Gomez Award
28-Oct-22	The 2nd Float Glass Plant Started Operation in Argentina

NSG

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