

Nippon Light Metal Group's Roadmap to Achieving 2030 Carbon Neutrality Targets

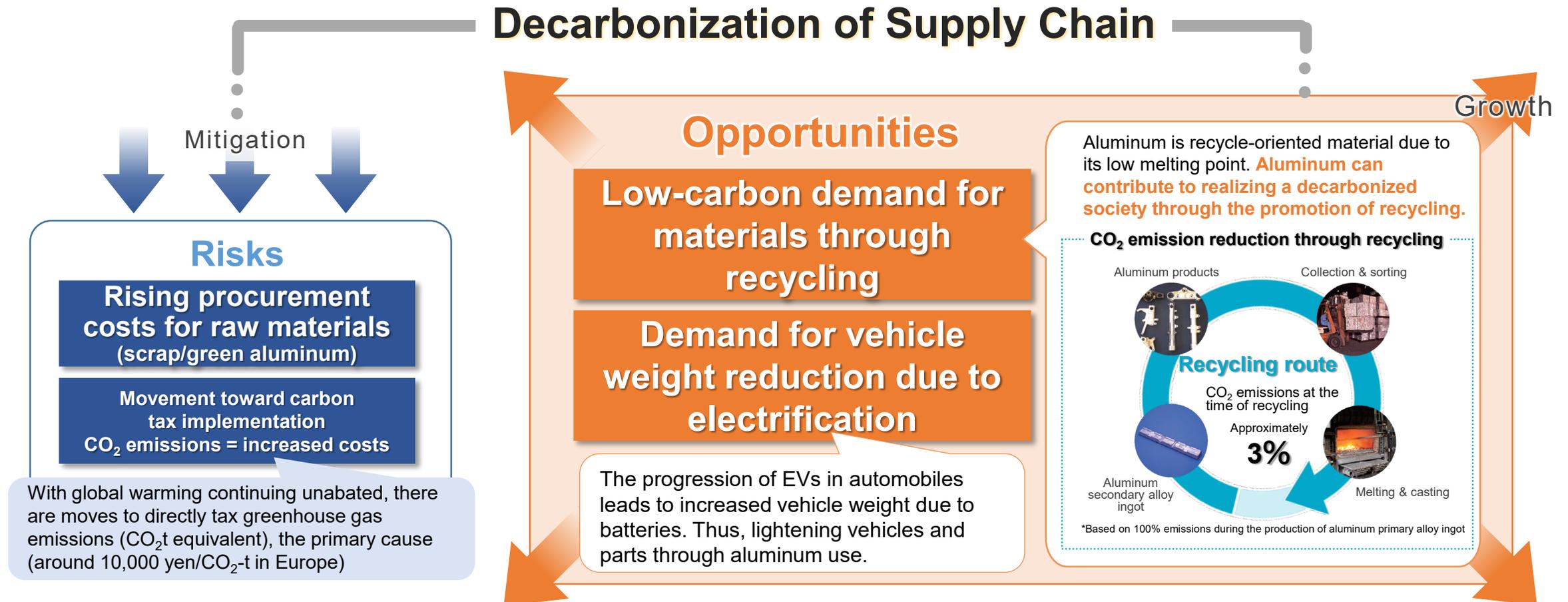


November 21, 2024
Nippon Light Metal Holdings Co., Ltd.

Roadmap to Achieving 2030 Carbon Neutrality Targets

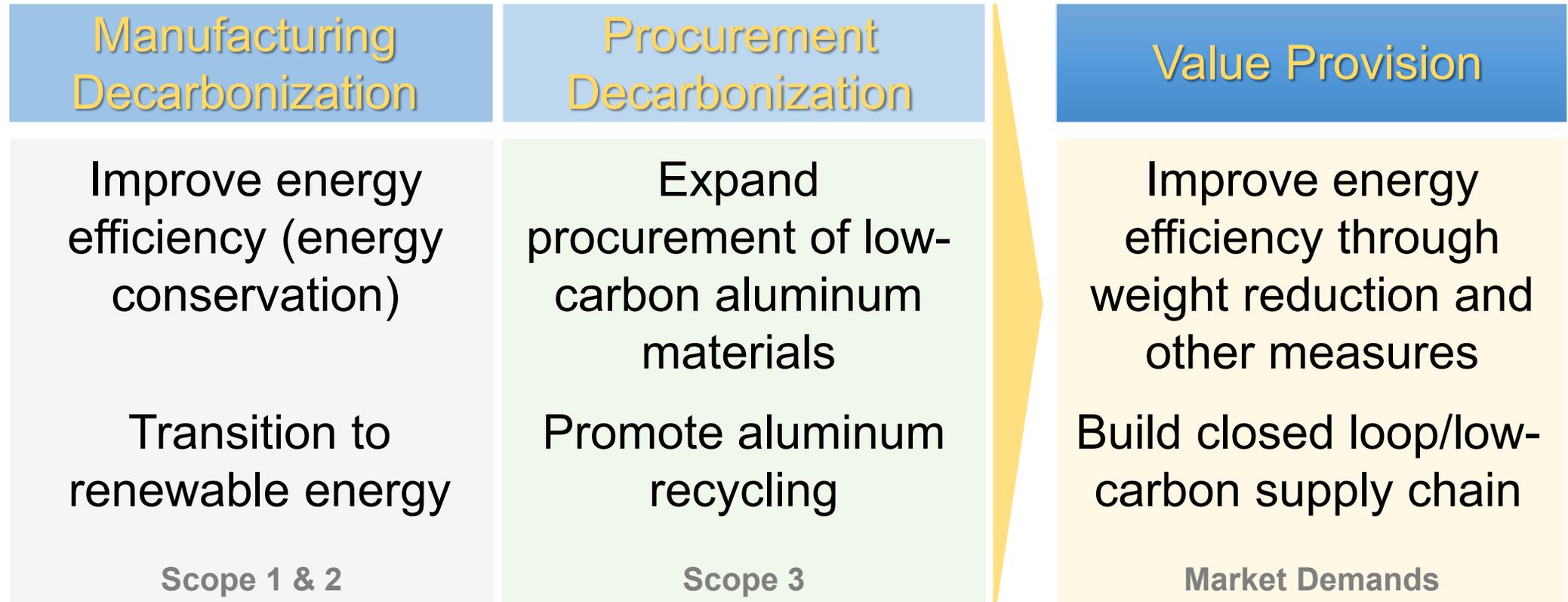
1. Why We Are Pursuing Carbon Neutrality

Our Group views the societal shift toward a decarbonized society as both a business continuity risk and an opportunity to grow the value of our business



2. Basic Policy for Carbon Neutrality

Aim to achieve both carbon neutrality and corporate value enhancement through supply chain decarbonization

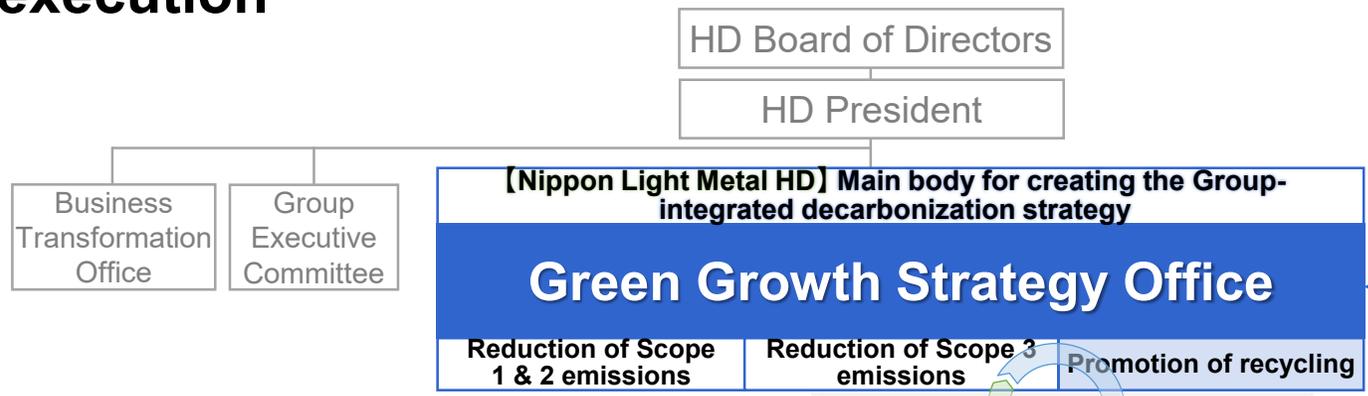


Roadmap to Achieving 2030 Carbon Neutrality Targets

3-1. Carbon Neutrality Promotion: Organizational Restructuring for Implementation

F23 We established organizations for planning and promoting carbon neutrality strategies across the entire Group, as well as implementation organizations for reducing Scope 3 emissions from aluminum materials

F24 Through business grouping, executive organizations were integrated into the Metal Business Group, enabling unified and agile resource allocation and execution



① **Formulation and promotion of decarbonization strategy**

The Green Growth Strategy Office was established as the main body for creating integrated strategies within the HD organization to respond to diverse business developments

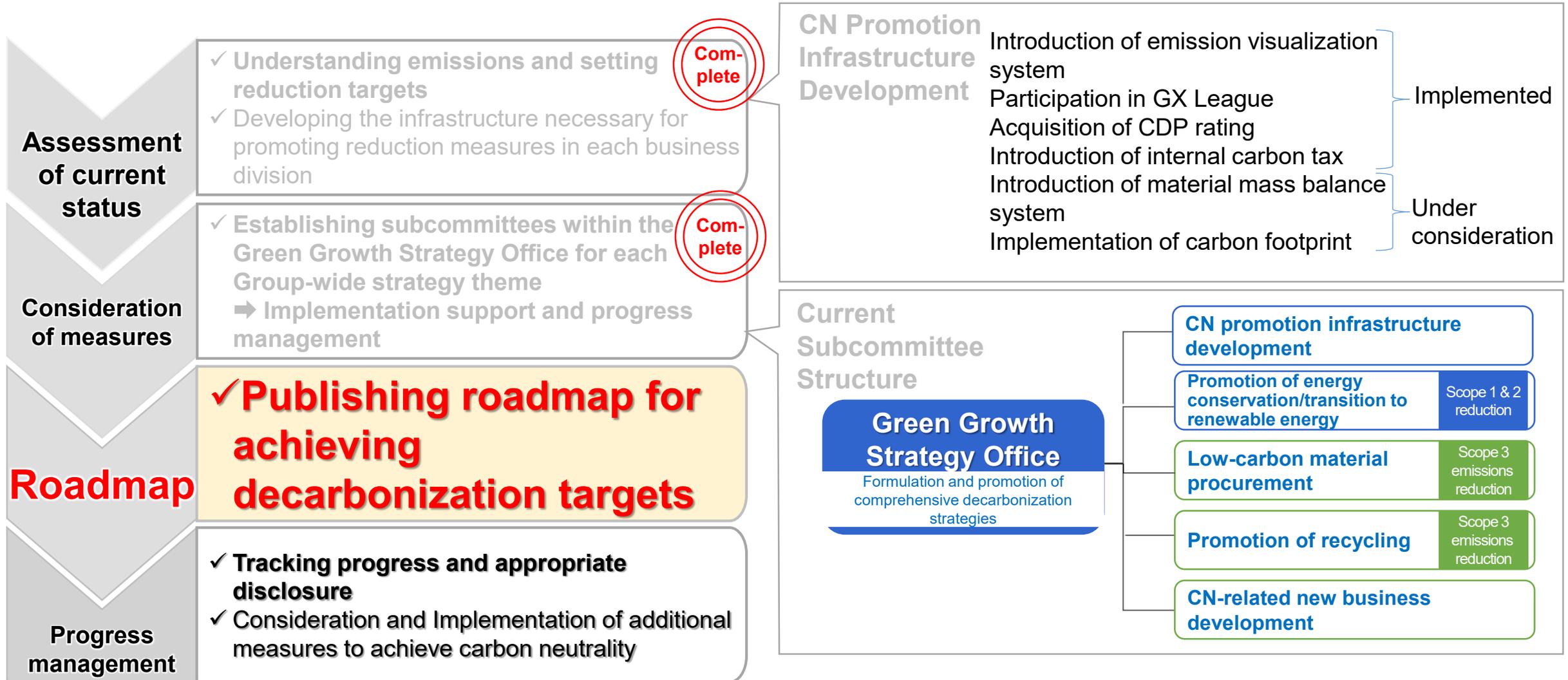


② **Reduction of Scope 3 emissions**

To reduce scope 3 emissions from aluminum materials, procurement/manufacturing/sales of them should be managed as if one team. We integrated these function as the Metal Division, which will be the execution division for recycling and reducing Scope 3 emissions

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3-2. Carbon Neutrality Promotion: Setting Targets and Organizing Measures



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4. Assessment of Current Status and Setting of Targets

Assessment of Current Status

Understanding CO₂ emissions across the Group
 → Converting current targets into specific numerical targets

*The scope of CO₂ emissions calculations covers NLM Group's domestic operations (79% of total consolidated operations).

【Current Targets】
30% reduction by FY2030
 (Compared to FY2013, sales intensity)

Fiscal 2013 CO₂ emissions

Scope 1 & 2
 0.47million
 t-CO₂

Scope 1 & 2 CO₂ emissions

Sales intensity: **1.41** t-CO₂/million yen
 (Scope 1: 0.31M t / Scope 2: 0.16M t)

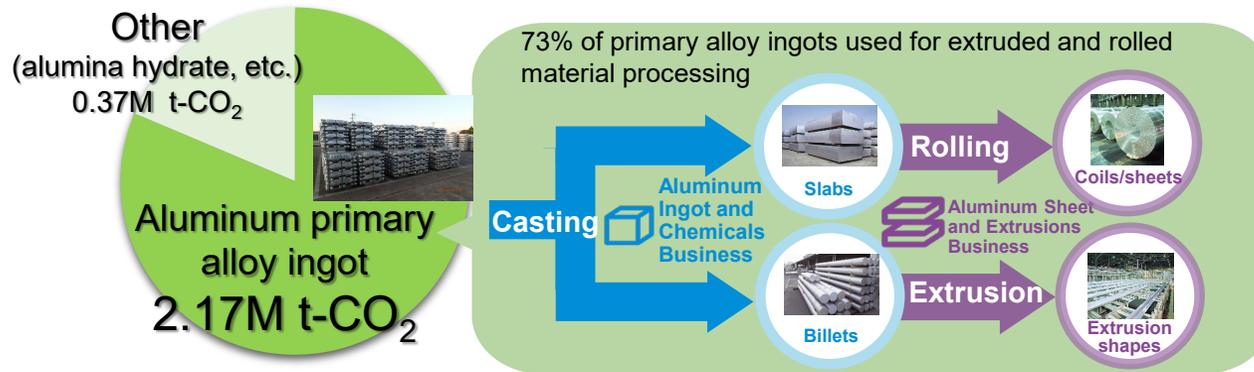
0.98 t-CO₂/million yen

Scope 3 emissions
 2.54
 million
 t-CO₂

Scope 3 CO₂ emissions

Sales intensity: **7.58** t-CO₂/million yen
 (Primary alloy ingot: 2.17M t / Other: 0.37M t)

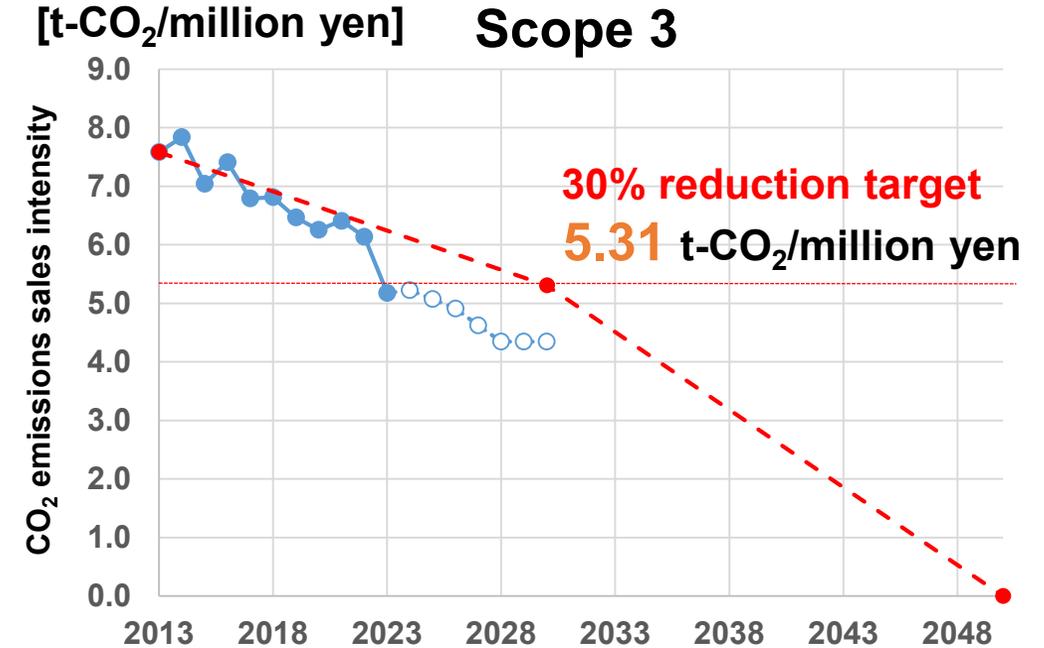
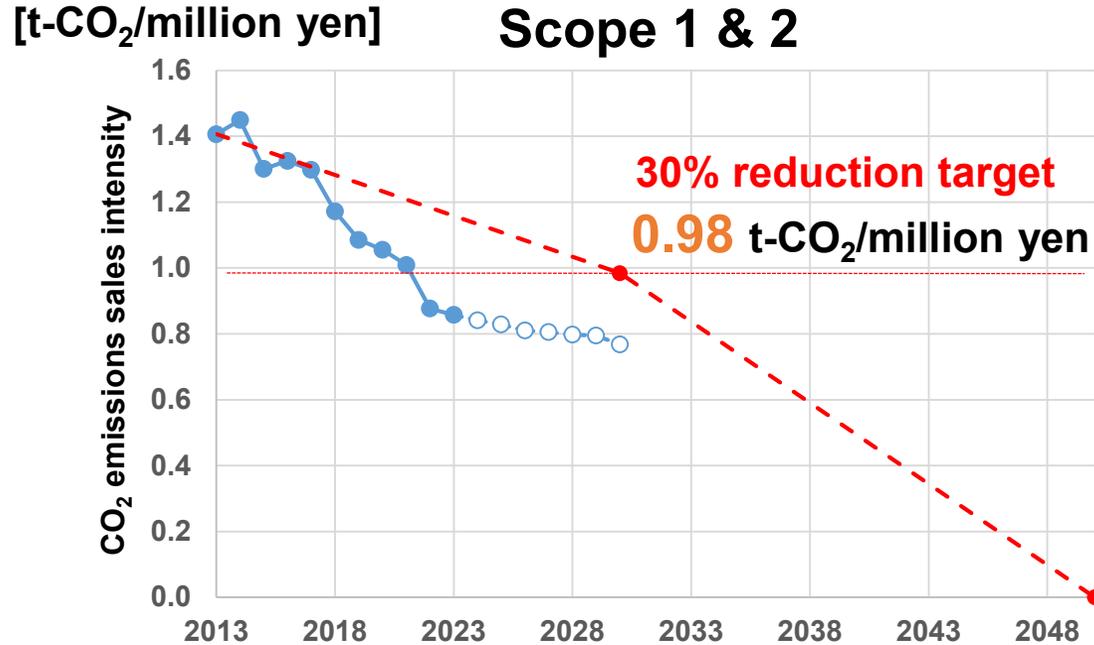
5.31 t-CO₂/million yen



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5. Numerical Targets and Status of Progress

Progress toward current targets has been steady, and the 2030 targets are expected to be achieved by building on currently planned measures



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6. Roadmap for Achieving FY2030 Targets: Scope 1 & 2

Both total volume and sales intensity figures have shown a steady decline until now

⇒ Achievement of targets will be maintained through continued energy conservation activities and ongoing transition to renewable energy sources

FY2013

Domestic sales: 335.0 billion yen

Sales intensity: **1.41** t/million yen

39% reduction

Emissions: **0.47M** t

FY2023

Domestic sales: 410.1 billion yen

Sales intensity: **0.86** t/million yen

10% reduction

Emissions: **0.35M** t

FY2030

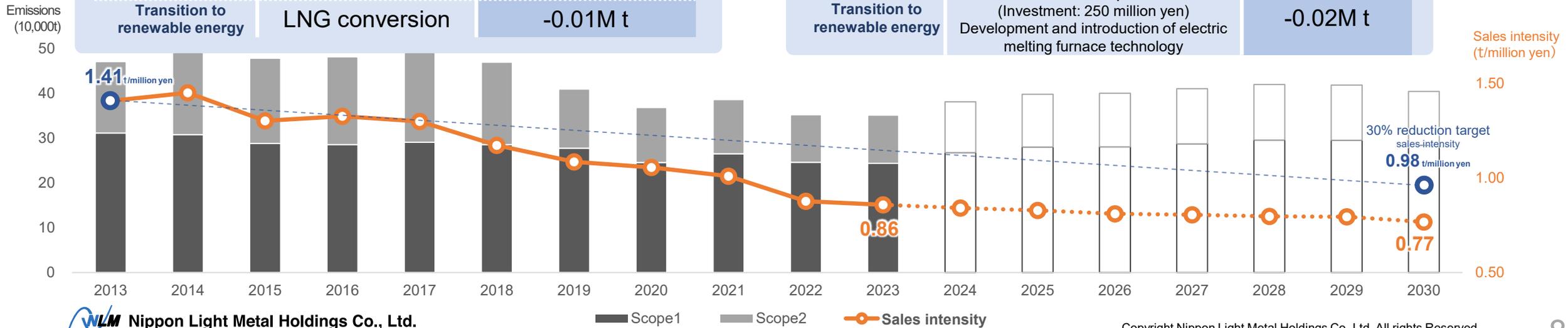
Domestic sales: 526.8 billion yen

Sales intensity: **0.77** t/million yen

Emissions: **0.4M** t

	Main items	Reduction effect
Demand impact	COVID-19 pandemic, etc.	-0.09M t
Promotion of energy conservation	Co-generation/regeneration	-0.02M t
Transition to renewable energy	LNG conversion	-0.01M t

	Main items	Reduction effect
Demand impact	Semiconductor recovery, etc.	+0.1M t
Promotion of energy conservation	Introduction of regeneration (Investment: 180 million yen)	-0.03M t
Transition to renewable energy	Renewable power (Investment: 250 million yen) Development and introduction of electric melting furnace technology	-0.02M t

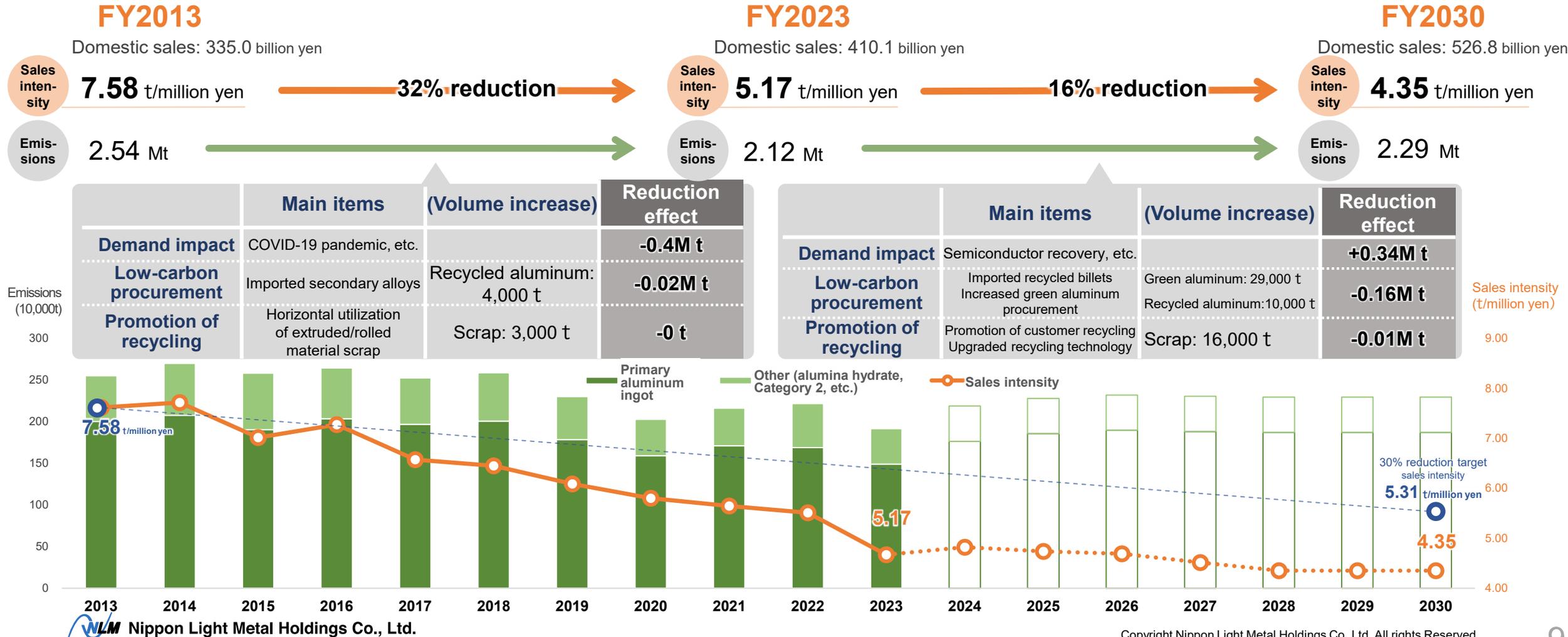


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7. Roadmap for Achieving FY2030 Targets: Scope 3

Both total volume and sales intensity figures have shown a steady decline until now

⇒ Going forward, the key will be expanding procurement of recycled billets and developing production technologies that lead to increased scrap utilization



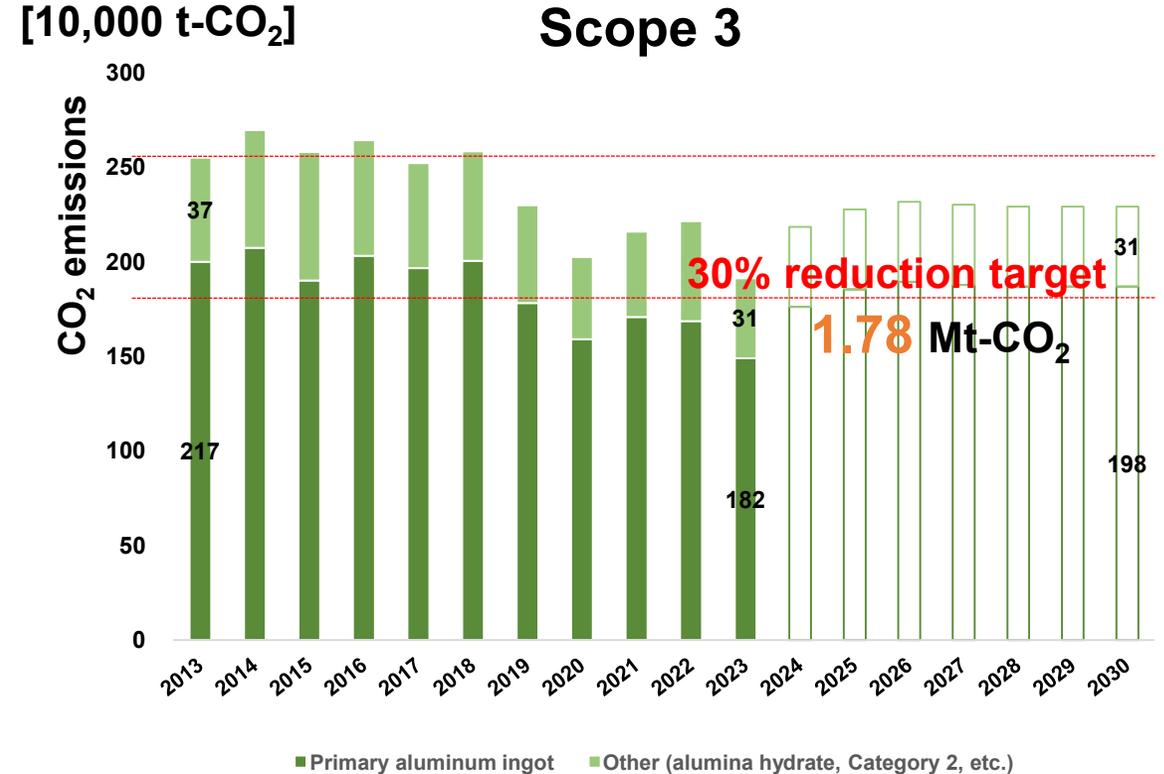
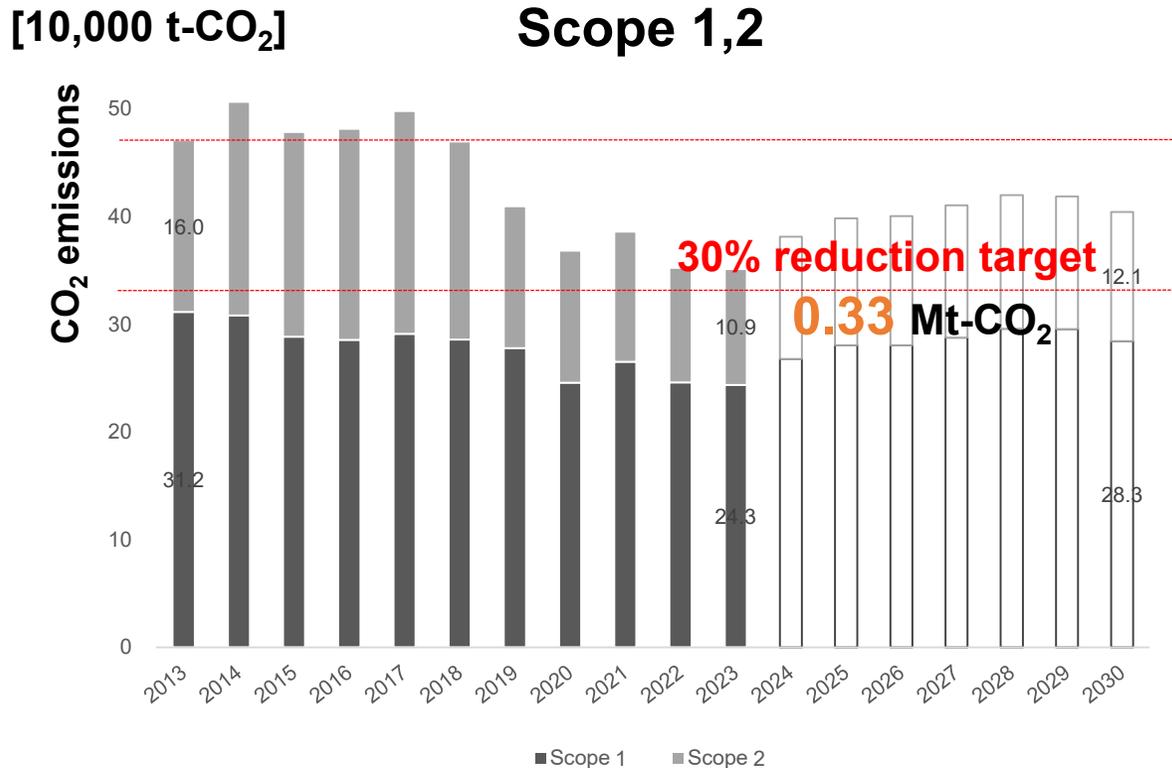
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8. Issues Recognized for FY2030 and Beyond

Expected to achieve Scope 1, 2, and 3 targets (sales intensity)

However, we recognize that reduction in total emissions is insufficient

➔ Need ① setting of targets for **total emissions** and ② **additional measures** for reducing total emissions



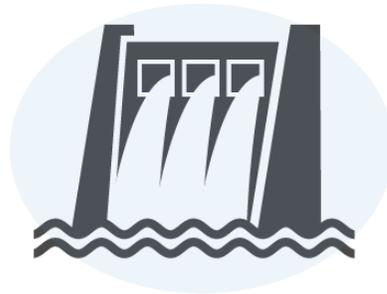
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9-1. Consideration of Additional Scope 1 & 2 Measures: 100% Transition to Renewable Energy

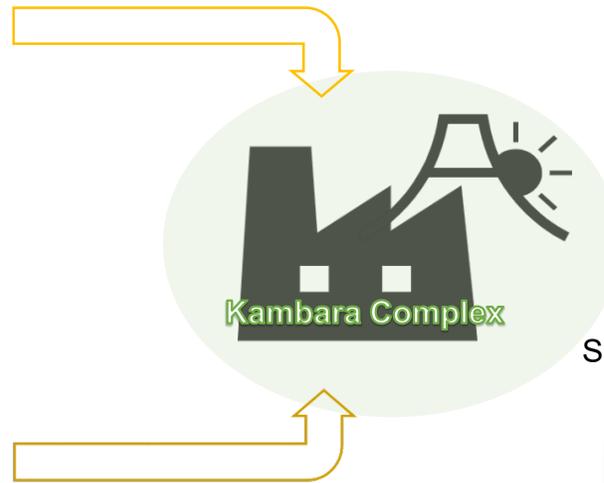
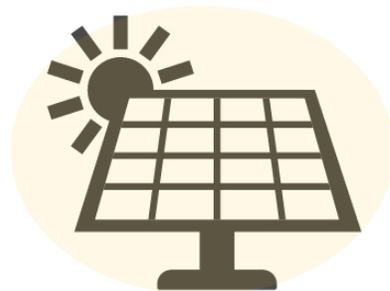
Converting all power at the Kambara Complex to 100% renewable energy, including in-house hydroelectric power generation, to achieve zero Scope 2 emissions

100% renewable energy plant = Zero Scope 2 emissions

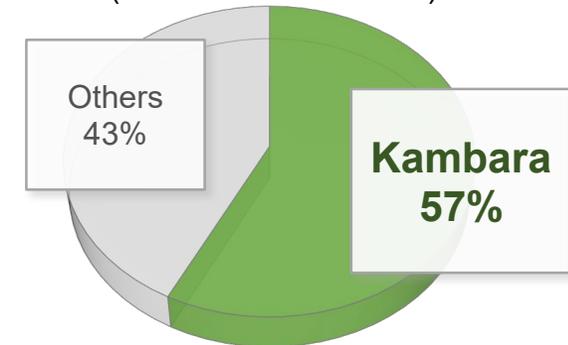
Hydroelectric power generation (in-house renewable energy)



Switching purchased power (during droughts, etc.) to renewable energy



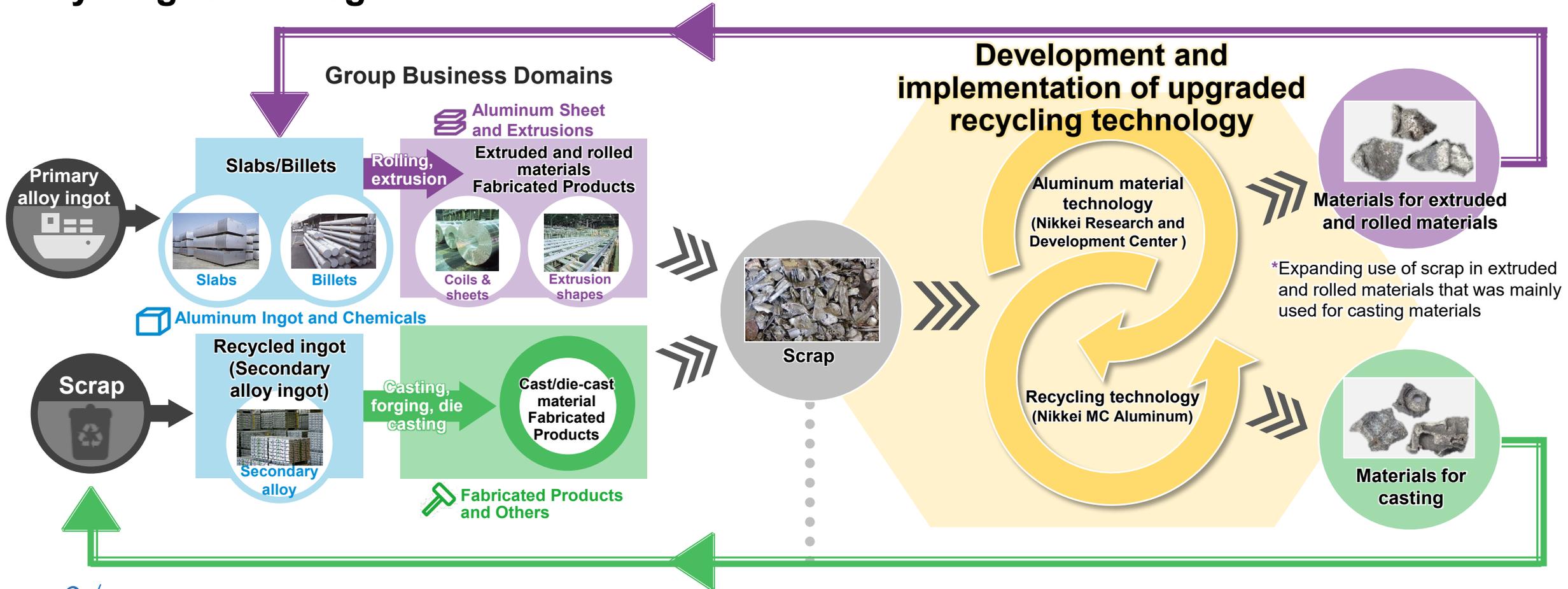
Share of domestic power consumption (FY2023 actual results)



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9-2. Consideration of Additional Scope 3 Measures: Developing Upgraded Recycling Technology

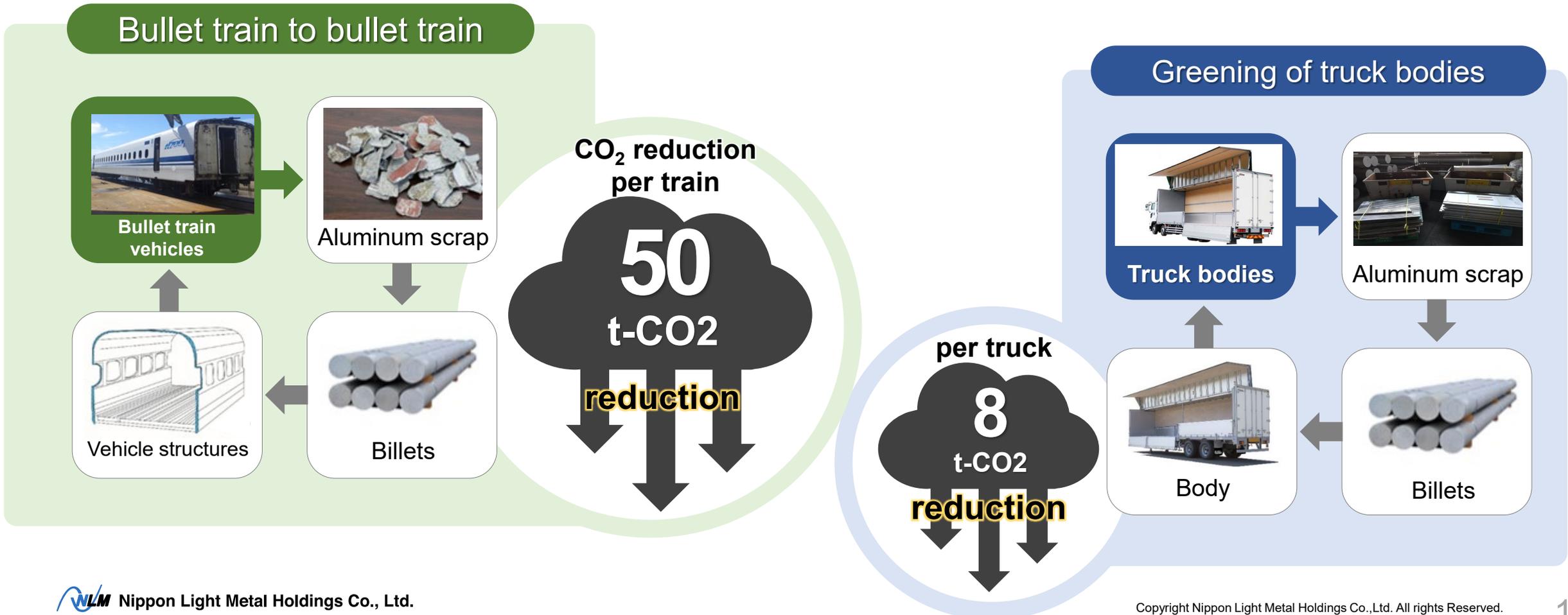
We aim to develop and implement upgraded technology that expands possibilities for circular use of scrap in extruded and rolled materials by leveraging material and recycling technologies



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9-3. Consideration of Additional Scope 3 Measures: Building Closed Loop Supply Chain

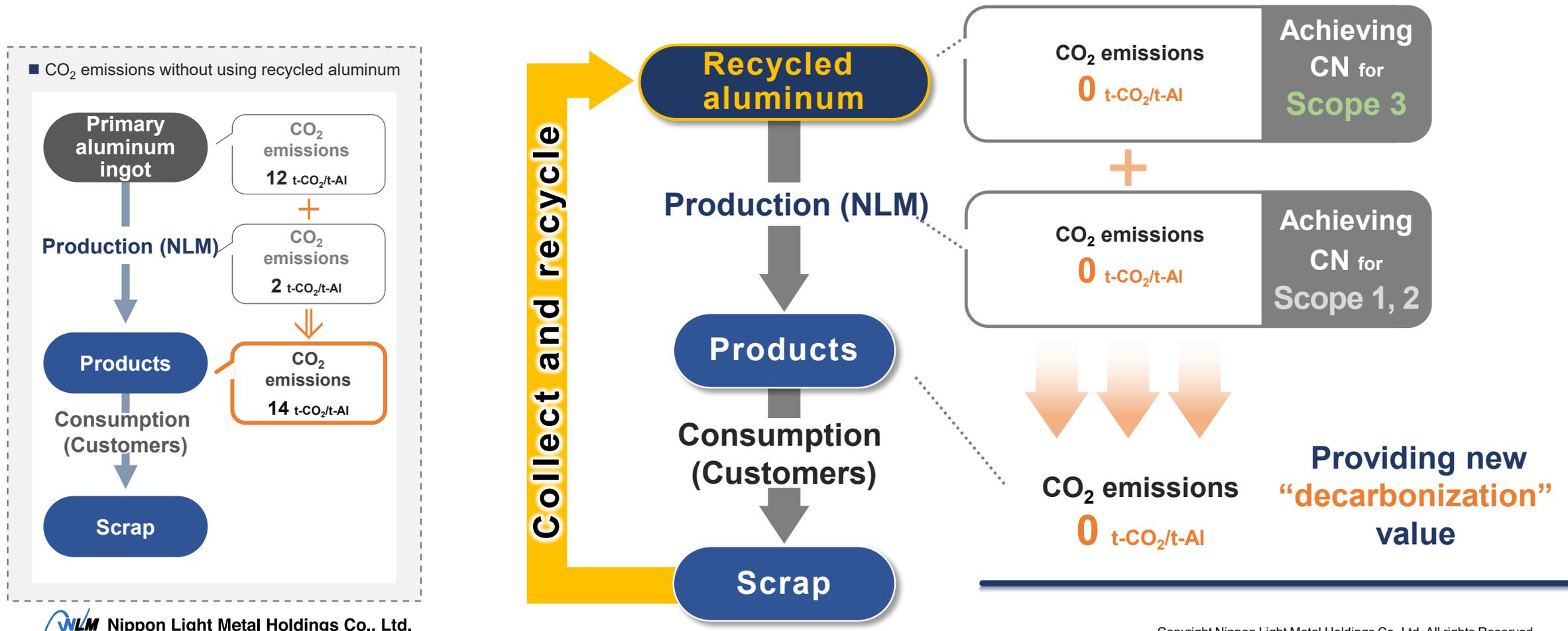
Cooperating with customers to collect product scrap >> Reuse as product materials
➔ Reducing the CO₂ emissions of the products we provide



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9-4. Decarbonization = Building Sustainable Supply Chain and Providing Value

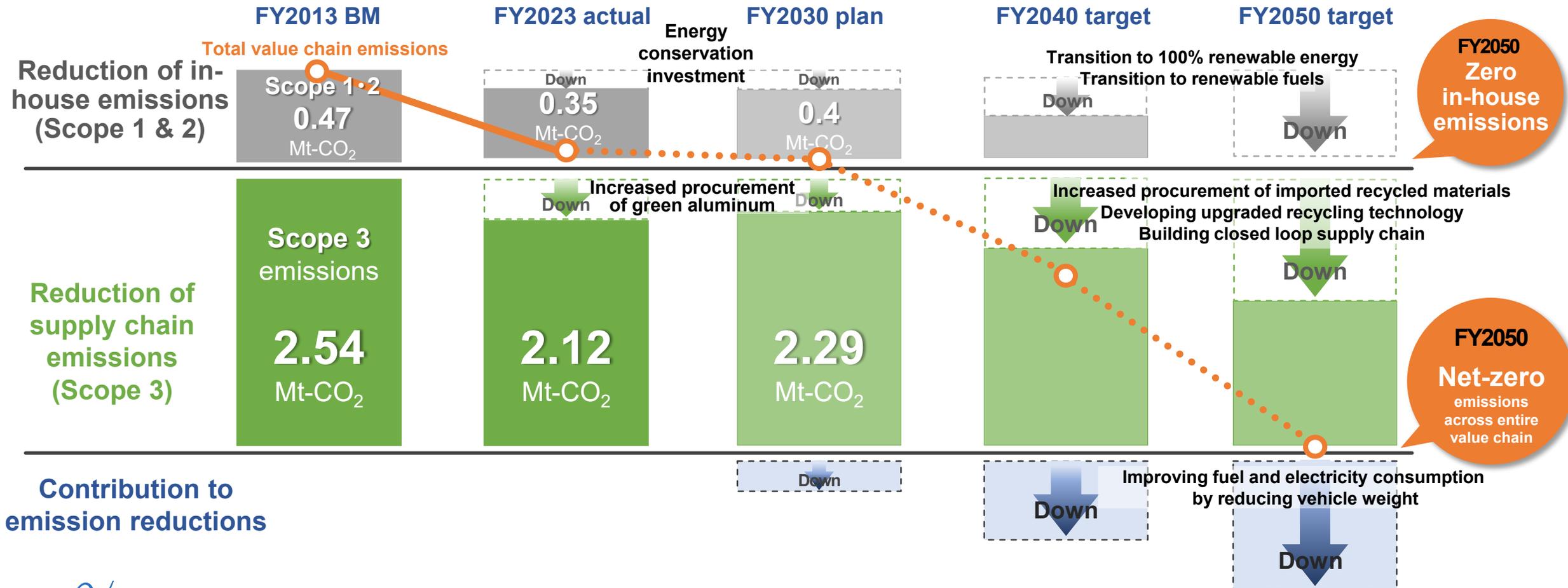
Providing the value of “decarbonization” to customers by rebuilding the supply chain to be sustainable



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10-1. Aiming for Achieving Carbon Neutrality by FY2050

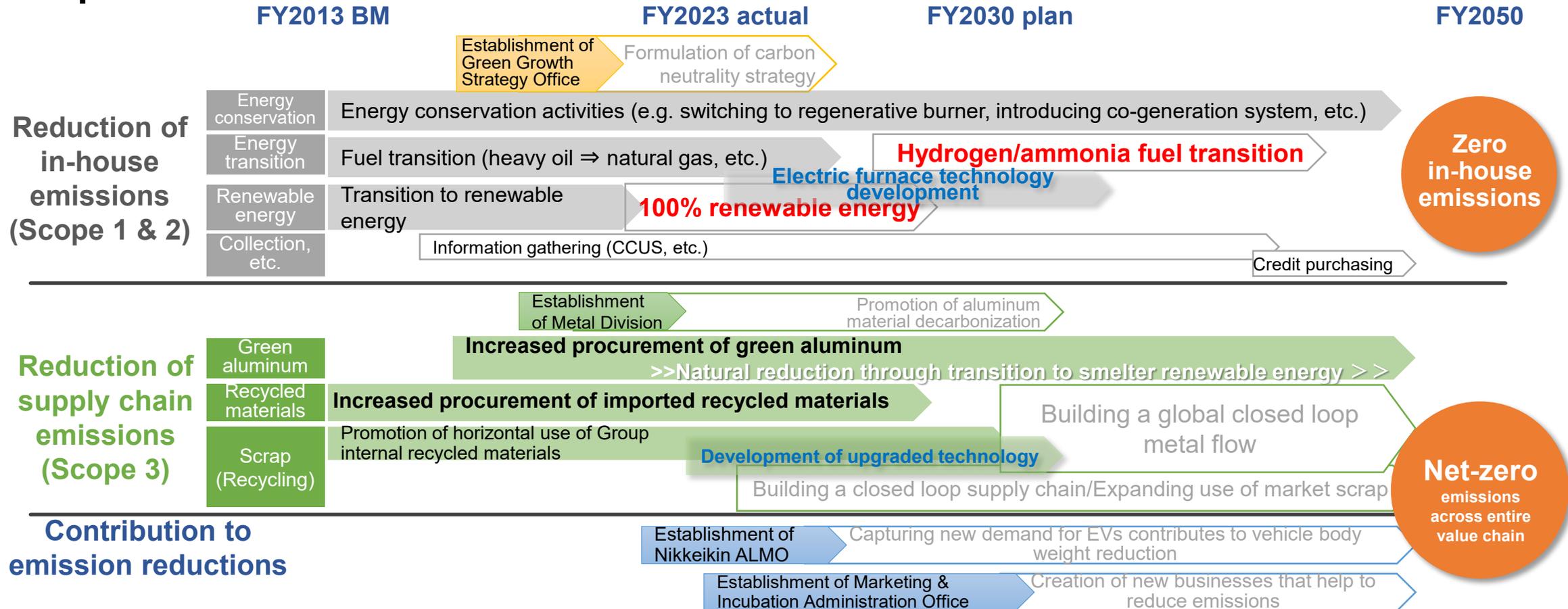
Aiming to achieve zero in-house emissions and net-zero emissions across the entire value chain by FY2050



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10-2. Measures for Achieving Carbon Neutrality

To achieve carbon neutrality, we need to transform our business structure by simultaneously advancing new technology investments/development and business expansion



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