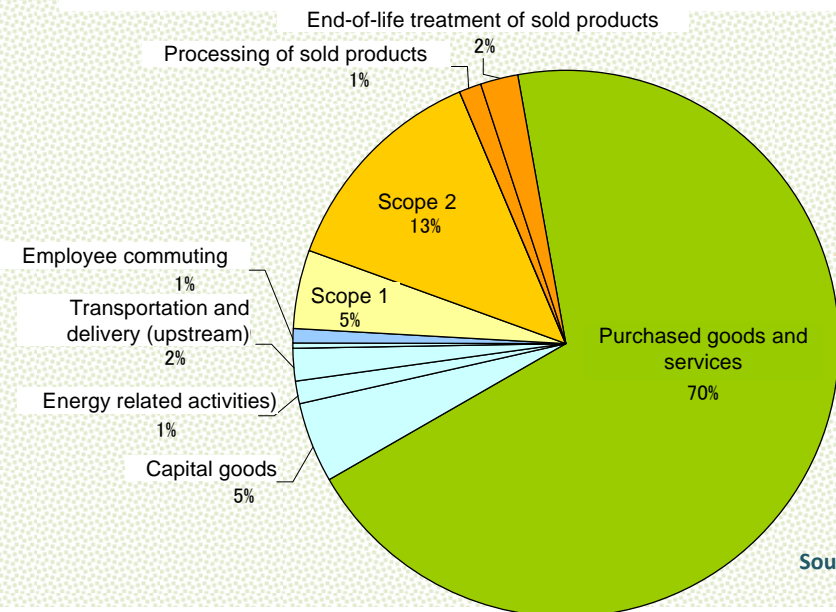


Company thinking

<input type="checkbox"/> Background and purpose for accounting	<ul style="list-style-type: none"> Understanding CO₂ emissions from all corporate activities is important in reducing the load on the global environment. The social demand for disclosing environmental load information is increasing yearly. Therefore, it is necessary to aggressively disclose environmental load information.
<input type="checkbox"/> Utilization of accounting results	<ul style="list-style-type: none"> To reduce CO₂ emissions by prioritizing by category. To gain the understanding and trust of customers by clarifying our involvement with environmental matters.
<input type="checkbox"/> Advantages of accounting	<ul style="list-style-type: none"> The emissions from the entire supply chain can be clarified and effective countermeasures can be taken. The transparency of our emissions will be improved, so that we will be able to respond to demands for information disclosure by our customers.
<input type="checkbox"/> Internal accounting organization	<ul style="list-style-type: none"> Data is collected from the Procurement, Logistics and Accounting departments, and then calculated by the Environmental department. The internal database is utilized to improve work efficiency.

Results of calculating CO₂ emissions in the supply chain



Mainly procured products (raw materials)



Bare aluminum Scrap aluminum Wood raw materials Plastics

[Glossary]

Aluminum ingots: The raw material for aluminum is a mineral called bauxite. Alumina (oxidized aluminum) is made from this bauxite, and this undergoes electrolysis to extract (refine) the aluminum. Ingots are made by casting aluminum in molds.

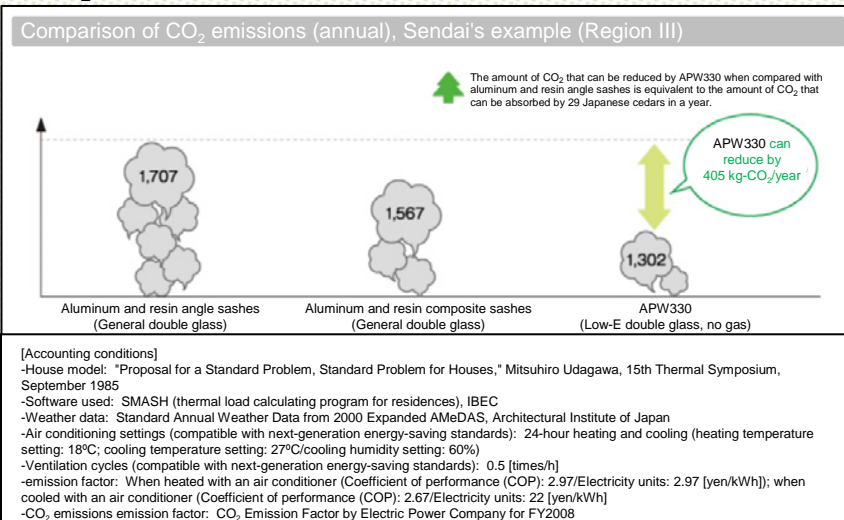
Scrap aluminum: Waste sashes, aluminum alloy wheels and the like are the raw material for scrap aluminum. Electricity consumption is lower than refining aluminum from bauxite, so that the load on the environment can be reduced.

Plastics: Vinyl chloride resins are the main type of plastic (resin) used in sashes.

Company thinking

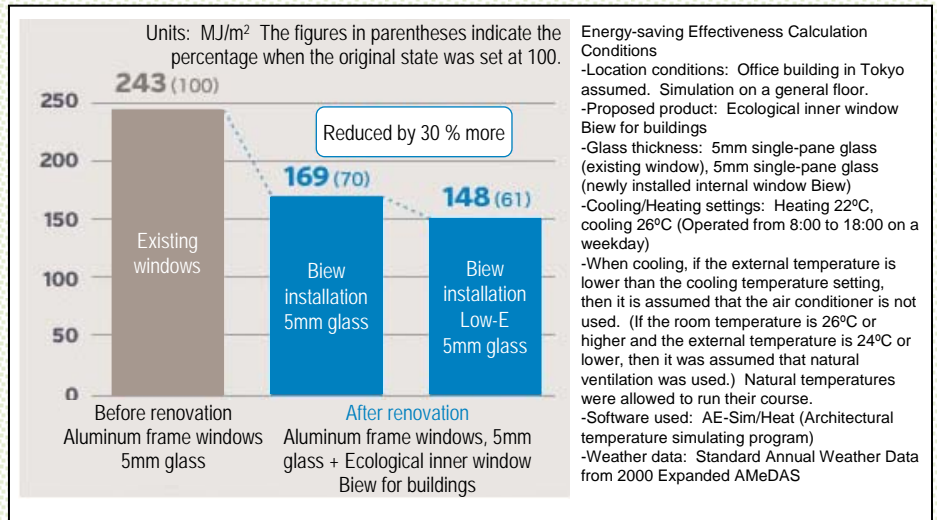
<p>❑ To reduce supply chain emissions</p>	<ul style="list-style-type: none"> Because raw materials account for about 50 percent of all CO₂ emissions in the overall supply chain, we are aggressively promoting a transition from raw materials with high CO₂ emissions to raw materials with lower CO₂ emissions. With respect to logistics, we dispatching vehicles in a more efficient way, improving loading rates and attempting a modal shift. We are starting "green" procurement and recycling of waste. Although our products themselves do not produce CO₂, by having customers use our products we can contribute to reducing CO₂ emissions from and energy usage in single-family houses and buildings.
<p>❑ Tasks to account for supply chain emissions</p>	<ul style="list-style-type: none"> When a monetary basis is used for emission factor, fluctuations in procurement value and not amount of material affect CO₂ emissions. Domestically, improved accuracy for emission factor and activity data are necessary. Activity data and emission factor must be implemented when developing this system abroad.
<p>❑ For those starting to account for supply chain emissions</p>	<ul style="list-style-type: none"> First, secondary data should be used to comprehend the approximate CO₂ emissions, so that an overview can be gained. It is then more efficient to improve accuracy for categories with high volumes of CO₂ emissions. CO₂ emissions become clearer by category, so that effective reduction countermeasures can be taken.

❑ CO₂ reduction contribution (windows for single-family houses)



Source: <http://www.ykkap.co.jp/apw/apw330/detail/eco.asp>

❑ Energy reduction contribution (windows for buildings)



Source: <http://www.ykkap.co.jp/search-b/biew-sp/performance.asp#page02>

Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> Weight of procured raw materials and other materials 	<ul style="list-style-type: none"> Emission factor database (*1, *2)
Category 2: Capital goods	<ul style="list-style-type: none"> Value of procured capital goods 	<ul style="list-style-type: none"> Emission factor database (*2)
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> Electricity and fuel energy usage 	<ul style="list-style-type: none"> Emission factor database (*1)
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> Calculated based on calculation methods for specific cargo owners in accounting, reporting and public disclosure systems 	
Category 5: Waste generated in operations	<ul style="list-style-type: none"> Treatment volume of waste by type 	<ul style="list-style-type: none"> Emission factor database (*2)
Category 6: Business travel	<ul style="list-style-type: none"> Amount paid by means of transportation 	<ul style="list-style-type: none"> Emission factor database (*2)
Category 7: Employee commuting	<ul style="list-style-type: none"> Amount paid by means of transportation 	<ul style="list-style-type: none"> Emission factor database (*2)
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> Depends on the scenario settings 	<ul style="list-style-type: none"> Emission factor by means or transportation using the ton/km method
Category 10: Processing of sold products	<ul style="list-style-type: none"> Depends on the scenario settings 	<ul style="list-style-type: none"> Emission factor per internal manufacturing and processing weight
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> Sold logistics volume for the cargo owner 	<ul style="list-style-type: none"> Emission factor database (*2)

*1 "Carbon Footprint Communications Program Basic Database, Ver. 1.01 (Domestic Data)"

*2 "Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain, Ver. 2.0"