

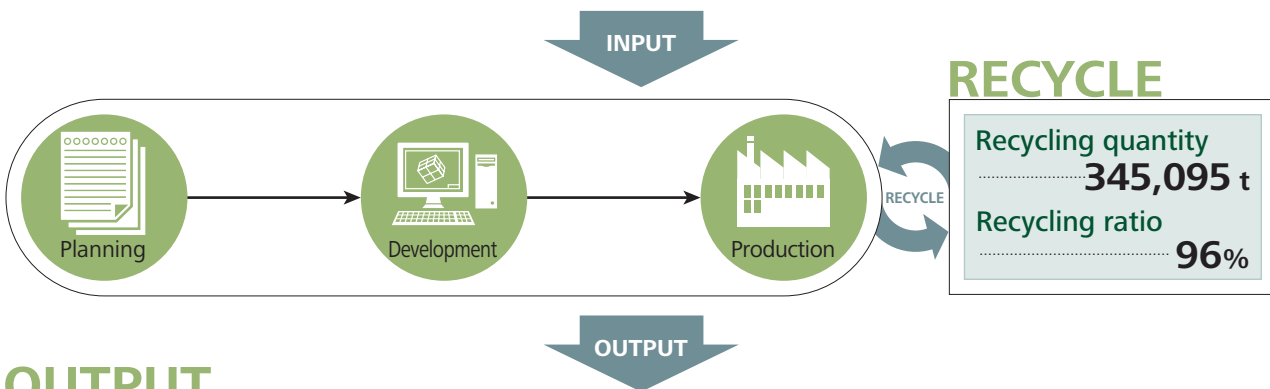


Quantities of Resources Used and Emissions Released (FY2009)

We are identifying and analyzing the amount of emissions of substances of environmental concern, such as quantities of energy and resources used, and greenhouse gases.

INPUT

Energy Total direct energy consumption 8,091,693,345 MJ Itemization Coal products (anthracite, coke, etc.) 1,266,485,072 MJ Natural gas 5,709,573,987 MJ Petroleum products (gasoline, diesel, LPG, etc.) 1,115,634,286 MJ Indirect energy consumption Electric power purchased 13,491,125,889 MJ Solar and wind-generated power 456,300 MJ		Quantities of substances used Raw materials 1,035,597 t Chemical substances PRTR substances 2,431 t Quantities of water resources used Total quantity used 8,662,486 m³ Itemization Public water supply 898,575 m ³ Industrial water 5,616,258 m ³ Underground water 2,147,653 m ³	
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OUTPUT

Greenhouse gases <Production> Total emissions 1,041,958 t-CO₂ Itemization CO ₂ (carbon dioxide) 958,972 t-CO ₂ HFCs (hydrofluorocarbons) 531 t-CO ₂ SF ₆ (sulfur hexafluoride) 82,455 t-CO ₂ CO ₂ emissions per sales unit 45.9 t-CO₂/¥100 million		Waste products Total waste emissions 358,560 t Total emission of industrial waste 127,099 t Quantity of end-processed general waste 116 t Total emissions of waste per sales unit ... 17.2 t/¥100 million Chemical substances PRTR emissions 182 t Total quantity of waste water Public water area 5,686,404 m³	
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Notes 1. ■ represents the total of the 10 main domestic production subsidiaries in Japan; other figures represent the total of the 23 main domestic subsidiaries in Japan.
 2. For more detailed information on data, please see Management Data Environmental Aspects section on pages 77-80

Environmental Management

We share a common philosophy and code of conduct regarding the environment within the Group.

Basic approach

AISIN places “coexistence between society and nature” at the heart of its corporate principles.

In order to put this ideal into practice, in February 2006 we drew up our “Fourth Environmental Action Plan,” a five-year plan aimed at tackling environmental issues. We are currently tackling five priority issues (see below) including expansion of environmental management.

In April 2008 we drew up the “Aisin Consolidated Environment Policy,” an action plan aimed at getting 149 companies in Japan and overseas consolidated environmental management system to work together on environmental conservation activities, thereby unifying the orientation of our environmental efforts.

1. Publishing consolidated environmental manuals specifying common groupwide requirements and keeping employees informed on such requirements
2. Compiling consolidated EMS training manuals summarizing EMS expertise and cultivating key people in environmental matters at each company
3. Creating consolidated EMS assessment sheets for self-checking and carrying out mutual assessments*

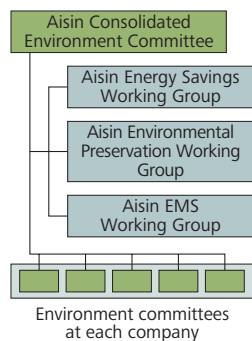
The issues identified in the mutual assessments administered in fiscal 2009 were shared at the Aisin Consolidated Environment Committee and will be reflected in the eco-certification system to be introduced in fiscal 2010.

* In a mutual assessment, a Group company is assessed by a team consisting of one assessor selected from each of five other Group companies.

WEB

“Aisin Consolidated Environment Policy”

Aisin consolidated environmental management structure



Environmental management system

AISIN’s consolidated environmental activities are centered on the Aisin Consolidated Environment Committee, consisting of officers in charge of environmental matters at major companies and the committee’s subordinate organizations: the Energy Savings Working Group, the Environmental Conservation Working Group and the EMS Working Group. The EMS Working Group promotes the following three activities in connection with environmental management systems (EMS).



A mutual assessment

Results of activities during fiscal 2009 in connection with the Fourth Environmental Action Plan (FY2007-2011)

Priority items	Activities	Targets for FY2009	Results of activities	Assessment	Page
Promote the development of earth-friendly new products and technologies	Develop environmentally friendly products	(1) Re-orientation toward low fuel consumption and low emissions	Encouragement of planning and development of products for hybrid vehicles and other next-generation products	○	—
	Promotion of environmental influence assessment at the development stage	(2) Templates to promote LCA Expansion of maintenance and products covered Target number of product assessments: 47	Improvement of electronic LCA template Expansion of coverage to three electronic products Products assessed: 31	×	P39
Reducing the substance of environmental concern in production activities	Prevention of global warming	(3) CO ₂ consolidated Standard year ratio: 135 or less of total quantity (4) CO ₂ non-consolidated Standard year ratio: 127 or less of total quantity	CO ₂ consolidated Standard year ratio:124 CO ₂ non-consolidated Standard year ratio:106	○	P40
	Reduction of VOCs Reduction of emissions	(5) Standard year ratio: 42 or less of total quantity (6) Standard year ratio: 87 or less of basic unit	Standard year ratio: Total quantity 25 Standard year ratio: Basic unit 81	○	P40
	Logistical CO ₂ emissions	(7) Common shipping used within the AISIN Group	Construction of systems for shipping dispatch arrangement enabling rapid response to changes in load, Advancement of education to encourage environmentally friendly driving	○	P41
Expansion of environmental management	Operation/development of consolidated EMS, audit, training system	(8) Development of consolidated EMS manual Goal: 48 companies	53 companies	○	P38
		(9) Consolidated EMS assessment Goal: 17 companies	16 companies	×	
		(10) Consolidated EMS training Goal: 30 people	70 people	○	
Further raise environmental awareness of individual employees worldwide	Communication with stakeholders of all kinds	(11) Issue of Aisin report and improvement in website (12) Improvement and expansion of AISIN environmental PR	(1) Issue of report with focus on consolidation (Jul. 2007) (2) Holding local discussion meetings and environmental symposiums, and display in the 2008 Integrated Exhibition of the Environment held in celebration of the Hokkaido Toyako Summit, MESSE NAGOYA, and the Eco-Products Exhibition	○	P33
Further encouragement of activities aimed at conserving nature and the environment	Natural environmental conservation activities	(13) Improvement and expansion of environmental study program	(3) Implementation of water quality surveys for local youth (60 people) Participation in environmental study programs for local elementary school children (4,300 people) and other programs	○	P35,36

WEB See “Fourth Environmental Action Plan: Results of Activities in FY2009” for details on the results of activities.



Design and Development

We strive to develop environmentally friendly new products and technologies.

Product environmental influence assessments and reduction of substances of concern

As a corporation involved in manufacturing, AISIN advances development of environmentally friendly new products and technologies with an eye toward generating products that customers will use and that can contribute to the global environment. As part of these efforts, we conduct lifecycle assessments (LCAs) for measuring CO₂ emissions during product lifecycles, assess the impact of products on the environment and use such assessments to curb CO₂ emissions. In fiscal 2009, we fell short of our targets for the number of items evaluated, but by preparing LCA templates we succeeded in increasing the number of electronic products covered.

Moreover, to ensure that the satisfaction our customers experience when using a product matches the satisfaction our employees experience

when the product is released to the world, we promote Value Innovation (VI) activities for rethinking existing products from a different angle to give them new functionality, and Material Innovation (MI) activities for curtailing environmental impact by reconsidering the materials used. Through such activities, we work to develop and produce higher value-added system products.

We are also reinforcing our chemical substances management structure for individual products, as the ELV Directive*1, RoHS*2 Directive, REACH Regulations*3 and other regulations on chemical substances grow more stringent.

- *1 ELV Directive. A European Union directive that came into force in October 2000 in connection with the recycling of end-of life vehicles and prohibiting the use of harmful substances.
- *2 RoHS Directive. A European Union directive that came into force in July 2006 prohibiting the use of harmful substances included in electrical and electronic devices.
- *3 REACH Regulations. European Union regulations that came into force in June 2007 in connection with the registration, assessment, authorization and restriction of all chemical substances (1 ton per year and above) in products and imports.

Development Highlights

An electric water pump for for cooling the engine that realizes automobile heat management (heat usage optimization)

We developed Japan's first electric water pump for cooling the engine, which is used in the new Prius, as a product that realizes automobile heat management (heat usage optimization).

Water pumps circulate coolant water to cool the engine, but until now they have been driven by power diverted from the engine. By making the pump electrically operated, we reduced engine load, enabled optimal control of coolant water quantity and eliminated the friction loss inherent in belt-driven pumps. These results yielded an approximately 2% increase in fuel efficiency.



A system that can measure PCB concentrations quickly, inexpensively and easily

We developed the "Immunomeasure" a trace substance detection system that can gauge PCB concentrations in the insulating oil contained in transformers and condensers much more quickly, inexpensively and easily than previous measurement systems.

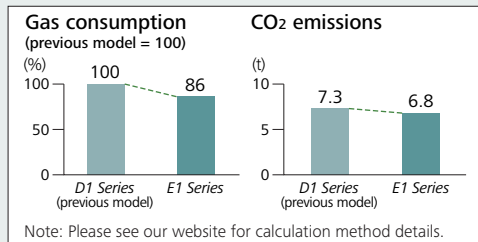
PCBs were banned in 2001 due to their toxicity to human bodies, and companies that previously used PCB-containing products have been required to notify the relevant governor and observe strict storage protocols. Precise measurement of the amounts of PCBs contained in products is essential for safe disposal of such products, but previous methods required approximately one month of processing time and high costs to measure PCB concentrations in a single test specimen. Such time requirements and expenses had hindered the testing and detoxification process for all quantities of PCBs stored in Japan. The new system combines conventional immunochromatography using antibodies with our proprietary technology in a kit that enables PCB tests on 46 specimens in a single day.



A gas heat pump (GHP) air conditioner that cuts CO₂ emissions by 7%

Aisin Seiki developed the E1 Series, a smaller and lighter gas heat pump (GHP) air conditioner with improved energy savings compared with conventional units, and released it in June 2009.

The new GHP air conditioner reduces gas consumption by approximately 14% compared with previous models. This reduction corresponds to an approximate 7% decrease in CO₂ emissions.



Production

We strive to reduce the total volume of greenhouse gases and other substances of environmental concern.

Reducing greenhouse gases (CO₂)

The greenhouse gases emitted during production processes include CO₂, which is released when energy is consumed, and sulfur hexafluoride (SF₆)*¹, which is used during product manufacturing. CO₂ from energy consumption constitutes 70% of total emissions, and is designated as our highest priority substance against which we take countermeasures. AISIN has set and is working to achieve the goal of cutting total CO₂ emissions by 7% on average compared with their fiscal 1991 level in the five-year period from fiscal 2009 to fiscal 2013.

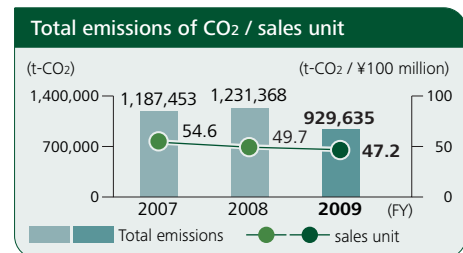
To meet this goal, we have formulated a medium-term emission reduction policy in the Aisin Consolidated Environment Committee, have shared the policy within the Group, and are working to spread the information on discovered substances to curb their emissions and successful emission reduction examples through the Energy Savings Working Group, which is an organization subordinate to the committee. As a principle, the themes raised in the working group are to be completed at each of the participating companies, which cooperate to take on even greater challenges by confirming the progress of activities among each other.

In fiscal 2009, as production volumes fluctuated, we advanced activities focused on raise, combine, stop operations*², streamlining production lines and completely eliminating energy loss during downtimes. We also enhanced horizontal deployment by holding meetings for presentation of successful examples of emission reduction.

Aisin Seiki employs an application-based system for power supply to ensure that power is delivered only to operational production lines, and ensures that the main power is always shut off during even brief production line downtimes, including employee rest periods. In addition, the lines newly launched in fiscal 2009 have achieved our energy-savings goal of a 45% reduction in power usage. As a result of such activities, Aisin Seiki's total non-consolidated CO₂ emissions were 207,000 tons—down 22% compared with fiscal 2008. The actual reduction of approximately 10,000 tons surpassed our goal of 8,300 tons. At the same time, the amount of CO₂ emitted per unit of sales was 27.9 tons, marking a 6% decrease compared with fiscal 2008.

Total emissions of AISIN's 10 main production

companies in Japan*³ declined 25%, to 930,000 tons. CO₂ emitted per unit of sales fell 5%, to 47.2 tons.



Reducing greenhouse gases (besides CO₂)

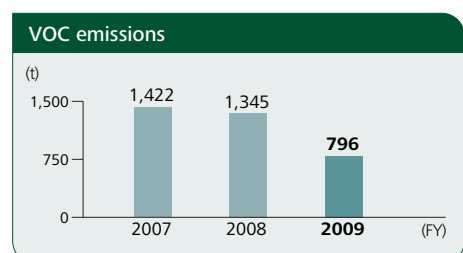
Among the greenhouse gases other than CO₂, we are promoting early replacement of the SF₆ used in our manufacturing processes, due to its substantial impact on global warming.

We successfully replaced SF₆ with an alternative gas that has the same warming coefficient as CO₂, after sufficiently verifying the fire extinguishing performance and safety of the alternative and confirming the absence of any problems associated with using it in manufacturing processes.

Consequently, emissions in fiscal 2009 totaled 83,000 tons of CO₂ equivalent—a 75% reduction compared with the preceding fiscal year.

Reducing substances of environmental concern

We have set a medium-term plan and are working to reduce VOCs*⁴, which are contained in solvents used to paint individual chassis parts and to coat electronic components, and have the potential to pollute the atmosphere. We are bringing together design and production divisions to review manufacturing processes in order to decrease VOC usage, such as by optimizing the shape of spray nozzles to raise product coating efficiency and modifying design drawings to minimize the areas requiring paint application.



*1 SF₆: sulfur hexafluoride. A greenhouse gas with a warming effect thought to be 23,900 times that of CO₂.

*2 Raise, combine, stop operations: Manufacturing and development departments work together to "raise" production capabilities of lines and facilities "combine" lines and "stop" using excess production lines and equipment. for improving production efficiency.

*3 10 main domestic production companies are as follows: Aisin Seiki, Aisin Takaoka, Aisin Chemical, Aisin AW, Aisin Keikinzo, Aisin Kiko, Aisin AI, Aisin Sin'ei, Aisin AW Industries, Hosei Brake Industry.

*4 VOC (Volatile Organic Compounds). This is the generic name for substances that readily volatilize in the air at normal temperatures and under normal atmospheric pressure. The term generally refers to artificially synthesized substances of this nature.



Transportation

We work to reduce CO₂ emissions and quantities of packaging materials used.

Reducing CO₂ emissions

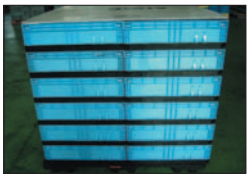
To decrease CO₂ emissions associated with the transportation of products and parts, AISIN actively employs marine and rail transport for long-distance shipping.

For shipments by truck, in fiscal 2009 Aisin Seiki integrated management of all cargo and created a system that enables swift and appropriate vehicle allocation management in response to changes in the amount of cargo through cooperation between plants and the Logistic Control Department. We also raised the loading efficiency of each truck, for instance by augmenting practices wherein the cargo of each Group company is shipped jointly. At the same time, we are working to raise environmental awareness at shipping companies by promoting education to encourage environmentally friendly driving practices and the implementation of eco-navigation systems, which inform drivers of driving conditions, and eco-tires.

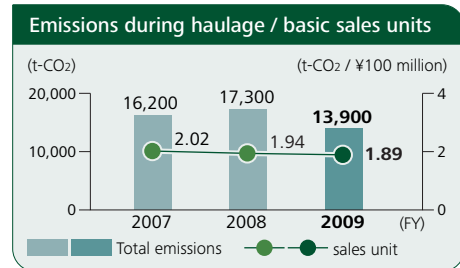
Although there were changes in shipping volume in fiscal 2009, the above efforts have contributed to successful reductions in total CO₂ emissions, as well as emissions per unit of sales.



Before improvement: cardboard (disposable)



After improvement: plastic (returnable)



Decreasing the amount of packaging materials used

AISIN strives to reduce the amount of materials it uses, including cardboard used in packaging products and parts.

In fiscal 2009, we modified packaging specifications for parts exported overseas to improve space efficiency and simplify partitions within packages. We also switched over to using returnable plastic for packing boxes, cut the amount of packing materials used and made other ongoing improvements.

Environmental Communication

We cooperate with our stakeholders in community environmental efforts.

Communication in factories

In each region, AISIN periodically invites representatives of neighborhood associations to its plants to provide information on business activities and environmental measurement results, at which time we strive to explain the Company's efforts and stance on environmental matters. We also take such opportunities to offer tours of our environmental response facilities.

To the extent possible, we work to reflect the views and requests expressed at such meetings in our business activities and environmental preservation efforts.

Communication with local children

AISIN offers environmental education programs to elementary school children in local communities.

In fiscal 2009, we administered a biological survey of Mt. Yatsuomote for students at Yatsuomote Elementary School in Nishio, Aichi Prefecture, to enable them to learn about the preciousness of nearby nature areas. For the survey we invited an expert in *nepa hoffmanni**1—a protected species in the area—as an instructor, and were able to find more than 60 of *nepa hoffmanni*, surpassing our expectations.

We also cooperated with members of the local community to maintain the bamboo forests where the creatures live.



Yatsuomote mountain biological survey

*1 *Nepa hoffmanni* are aquatic hemiptera insects in the nepidae family. They are flat and oblong, approximately 2.2 centimeters in length, with dark-brown skin. Their habitat is small streams and ponds of cold spring water and other low marshy places, and they are carnivorous, absorb their prey's bodily fluids. Habitats for this species in Japan are rare.