

# **DENSO ECOVISION 2015**

**I. Commitment**

**II. Environmental Basic Policy**

**III. 2010 Environmental Action Plan  
(Fourth)**

**November 2005**

**DENSO CORPORATION**

# I. Commitment

The DENSO Group recognizes that environmentally oriented company management is the management style of the 21st century and by working to remain a forerunner among environmentally oriented companies, we hope to realize a sustainable society. The DENSO Group hereby declares to contribute to people's happiness through research and development that is in harmony with the environment and to promote conservation activities by concentrating the wisdom and effort of every employee of the DENSO Group.

# II. Environmental Basic Policy

Classification	Item
1. Globally, the DENSO Group will make every effort to reinforce environmental management by concentrating the wisdom and effort of every employee of the DENSO Group.	<p><b>(1) Expanding group environmental management (Eco management)</b></p> <p>i) Reinforcement of consolidated environmental management All companies in the DENSO Group share and develop DENSO ECOVISION 2015.</p> <p>ii) Reinforcement of environmental partnerships with business partners The relationship with business partners is reinforced and expanded through environmental management systems in order to reduce the environmental impact of the supply chain.</p>

Classification	Item
<p>2. The DENSO Group will emphasize environment in all phases of the product lifecycle, including development and design, production, usage in the market and disposal.</p>	<p><b>(2) Development and design that takes into consideration performance improvement as well as the environment (Eco products)</b></p> <p>i) Development of new products, placing emphasis on the environment For realization of an advanced automobile society, the DENSO Group will make every effort to develop products that place emphasis on the environment (including technology that contributes to the prevention of global warming).</p> <p>ii) Enhancement of environmental preliminary evaluation in design process The DENSO Group utilizes a design review system for preliminary evaluation of environmental effects in the development and design processes for all products.</p> <hr/> <p><b>(3) Steady reduction of environmental impact in global production (Eco factory)</b></p> <p>i) Reduction of environmental impact for the DENSO Group production activities The DENSO Group will further reduce environmental impact globally by promoting resource saving, energy saving, etc.</p> <p>ii) Production activities that aim for harmony with regional natural environments The DENSO Group will set independent environmental impact reduction targets based on the regional characteristics of factories worldwide and promote continuous improvement.</p>
<p>3. The DENSO Group will further promote external relationships, information disclosure and communication with all stakeholders.</p>	<p><b>(4) Enhancement of external relationships and information disclosure regarding environmental actions (Eco friendly)</b></p> <p>i) Promotion of external relationships and contribution to society For creation of new environmental activities, the DENSO Group will make every effort to cooperate with NGO, government etc. (breaking down any barriers) and to contribute to society through products and business practices that place emphasis on the environment.</p> <p>ii) Enhancement of environmental communication The DENSO Group will make every effort to disclose environmental information to all stakeholders, and communicate with regional community.</p>

### III. 2010 Environmental Action Plan (Fourth)

#### 1. Expanding environmental management (Eco management)

Category	Approach Items	Detailed Actions and Targets
Environmental Management	(1) Reinforce consolidated environmental management	1) All consolidated companies will prepare and develop environmental action plans based on ECOVISION 2015. 2) All consolidated companies will develop and implement an environmental management system and promote continuous improvement. 3) All consolidated production companies will continuously evaluate environmental risk and develop preventative actions for accidents and violations.
	(2) Reinforce environmental partnerships with business partners	4) Develop "The DENSO Group Green Procurement Guidelines" for all parts and material suppliers <ul style="list-style-type: none"> <li>▪ Establish/utilize "chemical substance control systems" to control and reduce environmental hazardous substances contained in parts and materials.</li> <li>▪ Encourage the development and implementation of environmental management systems.</li> </ul> 5) Promote the purchase of eco-friendly products.
	(3) Promote new businesses contributing to environmental improvement	6) Develop "DENSO Eco Service Station" system for all DENSO service shops to promote environmental stewardship in the market.  7) Utilize technology, skill, and know-how accumulated from the automobile industry to develop non-automotive businesses promoting environmental improvement. <ul style="list-style-type: none"> <li>▪ Promote development and diffusion of new technology and products (such as natural refrigerant heat pump water heater)</li> <li>▪ Develop a diagnosis and consulting business utilizing energy-saving technology and skills</li> <li>▪ Develop activities promoting independent participation of the physically challenged</li> </ul>
Prevention of Global Warming	(4) Reduce greenhouse gas in all business fields	8) Prepare and develop medium and long-term plans to minimize the impact of global warming for all company activities.

## 2. Development and design that takes into consideration performance improvement as well as the environment (Eco products)

Category	Approach Items	Detailed Actions and Targets
Prevention of Global Warming	(5) Develop new technologies and products which contribute to industry leading fuel consumption performance	Promote the development of new technology and products that conform to fuel consumption restrictions in each country/region and the independent targets of automakers 1) Develop and commercialize CO <sub>2</sub> reduction technology ▪ Contribute to fuel consumption improvement of “120g CO <sub>2</sub> per km” by 2012.
	(6) Promote the development of parts for clean energy vehicles	Develop parts for clean energy vehicles and promote commercialization in cooperation with the automakers 2) Develop technology of parts for hybrid vehicles. 3) Develop parts for next-generation fuel-cell vehicles.
	(7) Develop new technology and products for diversified energy	4) Promote the development of new technology to support various bio-fuels and synthetic fuels etc. to reduce CO <sub>2</sub> emissions.
	(8) Promote measures to reduce global warming associated with vehicle A/C systems	5) Promote the development and diffusion of new technology and products for A/C systems using natural refrigerant which has a global warming factor of “150 or less” . ▪ Apply to new-model vehicles in EU by 2011 6) Promote the development and diffusion of new technology and products for highly efficient energy-saving A/C systems
	(9) Utilize ITS technology to support traffic rationalization	7) Promote the development of new technology and products which support traffic flow management
	(10) Reduce the usage of resources	8) Promote the design of light-weight/energy saving products
Recycling of Resources	(11) Promote the development of recycling technology	9) Promote the development of resin materials etc. which contribute to the stabilization of CO <sub>2</sub> volume in the air (Carbon Neutral) ▪ Confirm possibility of “practical use by 2009”
Control and reduce environmental hazardous substances	(12) Control and reduce environmental hazardous substances contained in products	10) Totally eliminate 4 environmental hazardous substances (lead, mercury, cadmium, hexavalent chromium) from products ▪ Totally eliminate 4 substances globally, by 2008  11) Promote the use of lead-free solder ▪ Totally eliminate lead in solder by 2009
	(13) Reduce exhaust gas emissions to improve the air quality in each country/region	12) Promote the development of new technology and products that conform to exhaust gas restrictions in each country/region and the independent targets of automakers
General	(14) Establish an environmental assessment in the product design and development phases	Promote the improvement of product performance and reduction of life cycle environmental impact 13) Introduce a product environmental efficiency index to rank products and declare green products.

### 3. Steady reduction of environmental impact in global production (Eco factory)

Category	Approach Items	Detailed Actions and Targets					
Prevention of Global Warming	(15) Reduce CO <sub>2</sub> emissions in production and physical distribution <ul style="list-style-type: none"> <li>Global CO<sub>2</sub> reduction</li> <li>CO<sub>2</sub> reduction in transportation processes</li> </ul>	<p>&lt;Production&gt;</p> <p>1) Enhance production technology to improve efficiency and productivity (activities include offices)</p> <p>2) Promote "perfect energy factory" to minimize energy loss and reduce CO<sub>2</sub> basic unit</p> <p>&lt;Physical Distribution&gt;</p> <p>3) Improve transportation and promote eco drive to reduce global CO<sub>2</sub> emissions</p>	[Target in 2010]				
	(16) Reduce greenhouse gas in production	<p>4) Reduce *five gases by collection and removal of CFC alternatives (such as PFC,HFC,SF<sub>6</sub>) in semiconductor production process.</p> <p>*Five gases: PFC, HFC, SF<sub>6</sub>, N<sub>2</sub>O, CH<sub>4</sub></p>	[Target in 2010]				
Recycling of Resources	(17) Promote the effective usage of resources toward recycle-oriented society	<p>&lt;Production&gt;</p> <p>5) Reduce total resource loss by improving production efficiency (ie improvement of product rate against raw materials etc.).</p> <p>(Maintain *Zero wastes in domestic manufacturing companies.)</p> <p>* Less than 1% compared to 1999 level</p> <p>&lt;Physical distribution&gt;</p> <p>6) Promote further reduction of usage volume of packing materials by simplifying packing and expanding use of returnable containers</p>	[Target in 2010]				
	(18) Reduce Water Consumption	7) Set targets in each country/region to promote activities which optimize usage and recycling.					
Control and reduce environmental hazardous substances	(19) Reduce VOC and PRTR substance emissions	<p>&lt;Production&gt;</p> <p>8)Reduce emission volume by continuously optimizing usage and using alternate materials</p>	[Target in 2010]				

## 4. Enhancement of external relationships and information disclosure regarding environmental actions (Eco friendly)

Category	Approach Items	Detailed Actions and Targets
Prevention of Global Warming	(20) Encourage employee environmental activities (eco-life)	Enhance education to promote employee' environmental activities 1) Expand clean-energy and low-pollution company cars. 2) Promote commuting activities ("park & ride system", etc.) 3) Promote education and diffusion of eco-drive 4) Promote tree-planting around the factory
General	(21) Promote proactive information disclosure and enhance mutual communication with stakeholders	5) Enhance global environmental information. 6) Further enhance environmental communication tools. 7) Communicate with stakeholders and promote mutual understanding
	(22) Enhance environmental education	8) Continue to enhance environmental education to improve daily activities/jobs. 9) Enhance global environmental education.
	(23) Enhance environmental and social contribution	10) Promote activities that match societies needs, emphasizing welfare for the physically challenged, youth education, and coexistence with community. 11) Establish a climate in which each employee can voluntarily participate in society activities 12) Promote environmental education in corporation with local community
	(24) Foster external relationships toward realization of a sustainable society	13) Promote support and R&D in corporation with related organizations in an effort to rationalize energy usage. 14) Implement activities toward conservation of biodiversity