

INITIATIVES FOR SUSTAINABILITY

Showa Shell strives to safely and consistently provide high-quality energy products and services, while meeting the challenge to reduce its environmental impact in the quest for sustainable growth. To realize these goals, we are working in cooperation with our shareholders, such as collaborating partners, employees, local communities, and other stakeholders to create a management structure that is more environmentally conscious.

“Energy Challenge” for Sustainability

“Energy Challenge” embodies our commitment to building in partnership with stakeholders a framework for supplying sustainable energy by “securing stable energy supplies,” “reducing adverse environmental impact,” and “developing new energy sources and environmentally friendly products.”

“Securing stable energy supplies” means that amid growing global energy demand going forward, we will continue to safely and stably supply energy by securing the necessary resources and seeking the optimal supply structure in a supply chain from crude oil procurement to the product supply.

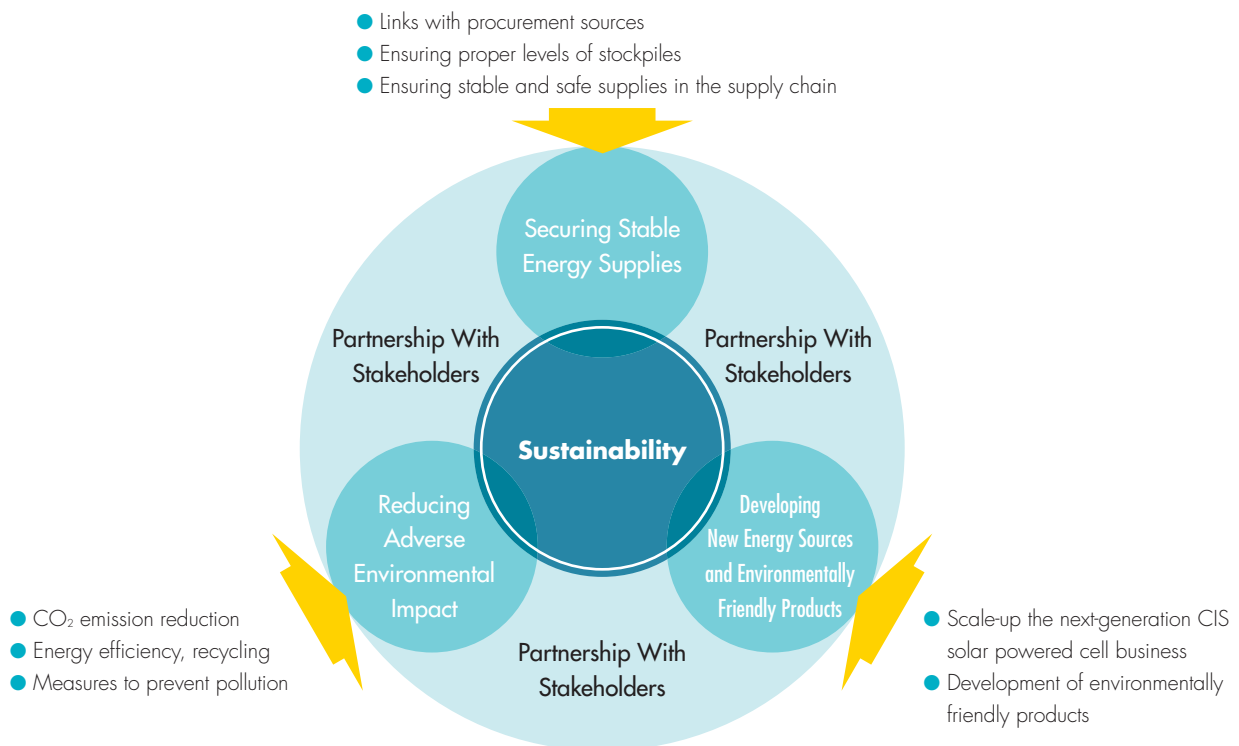
For “reducing adverse environmental impact,” we intend

to continuously implement measures to prevent pollution of air, water, soil and other pollution. In tandem, we will pursue improved energy and general efficiency at our refineries and at every stage of product transport to realize further reductions in greenhouse gas emissions.

With “developing new energy sources and environmentally friendly products,” we are dedicated to supplying high-quality energy that is friendly to the environment. In addition to the next-generation CIS solar powered cells that we began producing commercially in 2007, our environmentally friendly products include *Shell Pura* and *Shell Eco Toyu*, etc.

Securing Stable Energy Supplies

Showa Shell, through a global partnership with its principal shareholder, the Shell Group, and Saudi Arabia’s state-owned oil firm, Saudi Aramco, is involved in joint research and other efforts to expand its energy offerings and realize efficient crude oil procurement. As an energy company, contributing to the safe supply of energy to Japan is one of Showa Shell’s important social responsibilities. As such, we maintain crude oil and oil products as part of privately held stockpiles under Japan’s Oil Stockpiling Act.



As part of our efforts to achieve a stable supply of products, in 2007 we initiated our "Quality First" quality assurance campaign designed to ensure quality and safety throughout the entire supply chain. Since 2008, our campaigns for quality and safety assurance have been fully integrated under a new banner—"Safety & Quality First." As a result, we have successfully enhanced our safety and quality assurance system and, in addition to reducing quality-related complaints in 2008 by almost half compared to the previous year, we have also dramatically reduced all work-related injuries versus a year ago.

Reducing Adverse Environmental Impact

At our refineries, which account for most of Showa Shell Group's CO₂ emissions, we have conducted large-scale capital investments and enacted various other initiatives, including building a product portfolio tailored to trends in demand, reducing the sulfur and benzene content of our products, and implementing energy efficiency measures. In reducing CO₂ emissions, in addition to our commitment to attaining targets for unit energy consumption adopted by the Petroleum Association of Japan, we announced in December 2008 that Showa Shell would take part in the voluntary domestic emissions trading system introduced by the Ministry of the Environment.

For our transport divisions, we are viewing revisions to Japan's Act on the Rational Use of Energy as an opportunity to reinforce energy efficiency measures as a specified ship per subject to the law. To this end, we are taking steps to improve transport efficiency, including the use of larger tanker trucks, shortening transport distances, and performing transport more efficiently. Also for marine transport, we are striving to reduce transport frequency and the fuel consumption by using larger tankers, etc.



Large tankers reduce fuel consumption

Developing New Energy Sources and Environmentally Friendly Products

As urgency regarding environmental measures mounted, Showa Shell was among the first to pursue the development of environmentally friendly energy, building a framework for supplying a diverse range of energies. In one of these areas, the next-generation CIS solar powered cells that we first produced commercially in 2007, we decided in 2008 to strengthen technology development by establishing the Atsugi Research Center and embarked on joint R&D with respect to mass production technology. Our goal for next-generation CIS solar powered cells is to develop this business to a level equal to our oil business. On the strength of their environmental performance and the future viability of the manufacturing technology used, our "solacis" next-generation CIS solar powered cells received the Minister of Economy, Trade and Industry Prize, the highest award presented at the 12th New Energy Awards sponsored by the New Energy Foundation. (Refer to p. 20–21 for more details.)

In March 2009, we installed a quick-charger for electric vehicles at a service station in the city of Fujisawa, Kanagawa Prefecture. This installation of a quick-charger at a service station was the first of its kind in Japan. Additionally, we will continue our efforts to develop and commercialize high-quality products that have less impact on the environment. Among other initiatives, we are working on sales of *Shell Eco Toyu*, a product made from GTL technology that synthesizes liquid fuel from natural gas, the introduction of biofuel, a demonstration test for the supply of fuel to fuel cell vehicles at hydrogen stations, and an experimental test of residential fuel cell systems fuelled by LPG.



New trucks with improved load sizes and safety performance

Partnership With Society

The cooperation of all stakeholders is essential for achieving sustainable growth through our "Energy Challenge" initiatives. As a responsible corporate citizen, Showa Shell not only pursue environmental measures in its business supply chains, but works in conjunction with shareholders, customers, business partners and employees to conduct social contribution activities in a range of fields, including the environment, culture and the arts.

Recently our activities have had a particular focus on the education of the next generation, who will go on to create the society of tomorrow. One of our initiatives is the Environmental Photo Contest, "Things to Preserve and Correct Around Our Town," a photography contest that began with the goal of encouraging people to take a fresh look at their familiar surroundings with an eye to environmental preservation. In 2008, its fourth year, the contest evolved into an

educational tool for schools. Since we established a new group award for schools, the number of entrants in the junior category doubled from the previous year.

Another of our ongoing educational projects is our cooperation in "Christmas Lectures" on scientific themes, same contents traditionally held in Britain, and holding a Summer Vacation Energy Class. Our aim is to provide an opportunity for children to learn about science and energy.

We also cooperate with an NGO to provide opportunities for our employees to participate in tree-planting activities through the "Project for the Reforestation of Mt. Fuji."

Another of our activities is the Shell Art Award. Established more than half a century ago in 1956, as a result of this long history the award has come to be recognized in Japan's art world as a gateway to success for artists, with many talented young artists being discovered each year.



Judging the Environmental Photo Contest



Award ceremony for the Shell Art Award

Forging a "Next-Generation Energy Vision"

Under our "Energy Challenge" initiatives, in 2007 Showa Shell launched the Energy Sustainability Forum in cooperation with the Integrated Research System for Sustainability Science (IR3S), as part of an effort to build a long-term vision for energy in Japan and the rest of Asia.

Since 2008, the Energy Sustainability Forum has held three public symposia on the theme of energy sustainability for a low-carbon society with discussion covering the theme from industry, policy and academic aspects. The third symposium provided a forum for Showa Shell to announce that it had begun its work to contribute to building a low-carbon society. Chairman of Showa Shell Shigeya Kato participated as a panelist, noting "While our mission as an energy company is to provide a stable supply of energy, we are also taking steps to realize a low-carbon society by reducing the burden on the environment and developing new energy and environmentally friendly products." President Jun Arai greeted participants at the symposium, saying "My hope is that symposia such as these will be an opportunity for gaining an understanding of society's needs, and encouraging self-initiated steps towards a low carbon society."

We plan to compile a proposal for energy sustainability based on the discussions at the three symposia to use as a reference in our energy strategy and to make a proposal to society about energy sustainability.



Chairman Shigeya Kato participating in the panel discussion



Scene from a panel discussion

Introduction of Biofuel



Hitoshi Satou

MANAGING DIRECTOR
Japan Biofuels Supply LLP
(Limited Liability Partnership)
Senior Operating Officer

As part of its policy for reducing national emissions of greenhouse gas, the Japanese government has decided to reduce CO₂ emissions from transport fuel by having manufacturers improve the fuel efficiency of automobiles, and introducing biofuel into automotive fuel. Specifically, the government has set a target of introducing biofuel equivalent to 500,000 kiloliters of crude oil as transportation fuel in 2010.

Showa Shell has invested in a limited liability partnership (LLP) that procures and sells biomass fuel, and has participated since April 2007 in a pilot distribution operation for bio-gasoline with support from the Ministry of Economy, Trade and Industry. The bio-gasoline used in the pilot operation is regular gasoline blended with bio-ethanol made from plants and ethyl tertiary-butyl ether (ETBE) which is an isobutene compound petroleum gas.

In the pilot distribution operation from April 2007, Showa Shell carried out sales of bio-gasoline at seven service stations in the Tokyo Metropolitan area. From May to June 2008 this was extended by a further nine stations in the Tokyo Metropolitan area and the Tohoku region, with sales continuing until March 2009.

Showa Shell is making preparations for its plan to sell bio-ETBE blended fuel when full-fledged introduction of biofuels commences in 2010.



A service station selling bio-gasoline

Disaster-Proof Service Stations



Naoto Komatsu

EXECUTIVE OFFICER
General Manager
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During the Great Hanshin-Awaji Earthquake and the Mid-Niigata Prefecture Earthquake service stations were noted as robust structures in times of disaster, and the need for continued fuel supplies for emergency response vehicles of the police and fire departments was also reconfirmed.

Showa Shell is undertaking the development service stations that are equipped to respond in disasters, contributing to the local society in times when infrastructure is cut off in a major natural disaster, by providing stable supplies of fuel and serving as a lifeline for the surrounding community. As of March 31, 2009 we have installed 18 such service stations. Going forward, we will take steps to expand disaster-proof service stations equipped with next-generation CIS solar powered systems produced by our Group.



Disaster-proof service station
(Fujisawa City, Kanagawa Prefecture)