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ECONOMY
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Climate Savers

TRANSPORT!
COMMUNICATION
SAGAWA



Sagawa Express (Sagawa) is taking the express route to leadership in climate change innovation in the transport industry by aiming to introduce 7,000 compressed natural gas (CNG) trucks into its fleet by 2012. Despite major challenges, such as limited infrastructure to support fueling and the higher price of CNG, Sagawa is adamant that such climate change related initiatives are a crucial element of their business.



環境優先
Defensores do Clima
クライメートセイバーズ
Climate Savers

Sagawa Express delivers on climate change innovations for the transport industry.



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Background

Founded in 1957, Sagawa is a major logistics service company based in Japan with operations throughout East Asia. It specializes in door-to-door delivery and other services connected with delivery and distribution. It is the second largest transport and logistics company in Japan, with over JPY 11 billion in capital and annual sales of JPY 800 billion. In Japan, Sagawa's 36,000 staff operate 25,000 vehicles across 343 offices.

Sagawa had previously initiated programs and campaigns to encourage and reinforce environmentally sustainable driving, installed eco cargo compartments and improved the distribution and service center processes. In May 2003, it continued its environmental leadership by joining the WWF Climate Savers program.

WWF Climate Savers was founded in 1998 by WWF as a platform to enable companies to join forces in committing to more ambitious reductions in its greenhouse gas emissions and to transforming their industries' more customary incremental and/or passive approaches toward climate change action.

Sagawa's Climate Change Strategy

Back in 2004, Sagawa introduced its management slogan, "First choice for everyone." The goal was to build corporate value and sustainable business development for the long-term. In achieving this, the company had three objectives: (1) determining the scope of the business; (2) establishing firm foundations for business operations; and (3) meeting corporate responsibility.

The third objective, meeting corporate responsibility, was mainly focused on environmental management. Its first recognition as an environmental leader was in June 1998, when it was awarded the "Environmental Agency Director's Award for Efforts to Prevent Global Warming" by the Eco Project Promotion Committee.¹ This was for a company campaign that trained drivers in eco-friendly driving practices, such as resisting the tendency to leave vehicles idling, avoiding sudden braking, decelerating slowly and accelerating patiently. This had already saved 10 million liters of fuel per year and JPY 1 billion in reduced fuel costs.

It then won another award² before becoming the first company from the transport sector to join Climate Savers in May 2003. It set a goal to reduce overall 2002 levels of CO₂ emissions arising from business activities by 6% by 2012. Instead of targets based on eco-efficiency or energy units, Sagawa aimed for net reductions.³ The company's sustainability report in 2006 stated:

In order to prevent the air pollution attributed to exhaust gases – and global warming – we seek to promote greater transport efficiencies, the adoption of low-

¹ SG Holdings. "Group history" SG Holdings. <<http://www.sg-hldgs.co.jp/english/company/enkaku.html>>. (accessed 25 November 2009).

² December 2002, "Minister's Award for Global Warming Prevention Activity" from the Ministry of Environment.

³ Setting up net, or absolute, reduction targets is required by WWF for a company to join its Climate Savers program.

emission vehicles and the practice of eco-safe driving. And we seek continuous improvement in our efforts to conserve the environment.⁴

Efficiency in existing processes has led to CO₂ reductions. By streamlining processes in the company's Hub Centers, it has been able to achieve greater loading ratios on its trucks. Hub Centers gather freight and parcels, and sort them by destination – an improvement on a previously unstructured process. This has been supported by utilizing its distribution centers and simplifying its workflow. Distribution centers manage the full distribution process all under the one roof, from acceptance to picking, packaging and shipping. Before, each process had been managed by a different center, with trucks transporting the products from one place to the next. Both have led to the elimination of unnecessary transport, with fewer trucks leaving the centers loaded with more to deliver.

The approach Sagawa has taken also involves diversifying away from trucks and vehicles. Sagawa began working towards a modal shift (from road to rail transport) in 2004. One "Super Rail Cargo" trip carries the equivalent of 56 ten-ton trucks, a return trip saving of 14,000 CO₂ tons. Sagawa is increasingly incorporating bicycle and trolley delivery, by establishing non-vehicle service centers to manage deliveries in congested urban areas. As of March 2009, there were 221 non-vehicle service centers.

Sagawa also sought opportunities to make its trucks and vehicles more efficient. Since these modes of transport were fundamental to the business, Sagawa had to ensure that it operated high performance vehicles. It was important to balance productivity with environmental management to ensure overall sustainability.

Small delivery vehicles were also fitted with "Eco Compartments," a durable, safe and recyclable cargo compartment. A cargo compartment is the back of the delivery vehicle, which holds the deliveries and goods. These were to be fitted on all future delivery vehicles.

With all the established campaigns, events and processes to reduce the CO₂ emissions of the company, it was a challenge for WWF Japan to take Sagawa to a new height in environmental leadership through the partnership. After much deliberation, it became clear that it was time to push efficiency within the core business and through the company's vehicles.

Reducing CO₂ in Trucks and Vehicles

Prior to joining WWF Climate Savers, Sagawa had flirted with the idea of transitioning to CNG trucks. In the early 1990s it had begun to study lower polluting vehicles and their efficiency. Efficiency was defined in terms of CO₂, nitrogen oxide (NOx) and particulate matter (PM). It trialed hybrids, methanol vehicles and CNG, concluding that CNG was the best (*refer to Exhibit 2, for comparisons of fueled trucks*).

Sagawa's target of reducing 2002 emissions by 6%, combined with WWF Climate Savers's encouragement, drove it to give a green light to the fleet transition program. The logic was clear; Sagawa's target translates into 344,600 tons, but if Sagawa was to continue using only diesel trucks, CO₂ was estimated to actually rise to 393,500 tons (*refer to Exhibit 1, for data on reduction action and targets*). The program was to introduce 7,000 CNG fueled trucks to the fleet that would help achieve its emission target by 2012.

⁴ SG Holdings Group, Sustainability Report 2006.

Almost immediately after they began introducing the CNG trucks, the company faced setbacks due to infrastructure constraints. Mr Kinya Hiyama, manager of environmental preservation promotion section of the general affairs department, explained:

In Japan, there are very limited numbers of CNG filling stations. Japan's lack of fuel-supply infrastructure is posing an impediment to our introduction plan. Actually, we still suffer from it.

As CNG filling stations were rare in Japan, Sagawa had to take on the initiative of building them themselves. It established its first station in Tokyo in 1999 before it was truly serious about the fleet transition program, and since then it has expanded to 23 stations nationwide (as of August 2009).

The other major obstacle it faced was the greater expense of a CNG truck compared to a diesel truck. Sagawa's collective and inclusive decision-making processes allowed it to find the right solutions. Hiyama clarified:

Sagawa usually takes an approach where every party exhaustively clarifies the potential problems and issues to offset potential risks brought by the new initiatives. By repeating both a top down approach from the management and a bottom up approach from each department, we can eventually take the best measures for change.

Sagawa received some financial support from public sources, but the company's view is that the internal determination to pursue this strategy was the most decisive factor in successfully reaching its established goals. Consequently, Sagawa will continue to build fuel stations and add CNG vehicles if subsidies are abolished. Hiyama explained:

In some cases, cost problems can be resolved through the provision of public support such as subsidies. However, we firmly believe that whenever we take measures, we have a strong corporate will to pursue those measures even in the face of adversity such as abolishment of subsidies.

As business performance can often fluctuate depending on social criteria these days, Sagawa considers it highly important to collect key information about environmental policies. We need to survive the rough seas by being proactive depending on the situation.

As of August 2009, Sagawa had 4,306 CNG trucks in its fleet. This represents more than 25% of the total number of CNG-run trucks in the whole of Japan (*refer to Exhibit 3, for the background and plan for CNG truck introduction at Sagawa*).

More Changes Are Inspired

Participation in the Climate Savers program encouraged Sagawa to initiate a pioneering activity.⁵

In February 2008, Sagawa launched the "Hikyaku Express with CO₂ emission credits" parcel delivery service. Offsets would go under the Kyoto mechanism (*refer to Exhibit 4*). Sagawa charges a premium to customers who wish to use the service, with Sagawa adding an extra incentive by matching the payment, essentially doubling the offset credit. In September 2008 Sagawa began managing the offsets for other transport services and entered into a partnership with the mail order business Senshukai.

⁵ Interview, comment made by interviewer from WWF Japan.

All offset credits are donated to the Japanese government and they contribute to the country's national emissions reduction targets of 6% under the Kyoto Protocol. To date the service has reduced 116 tonnes of CO₂ from Sagawa's and Senshukai's footprint.

The Horizon: Challenges and Results

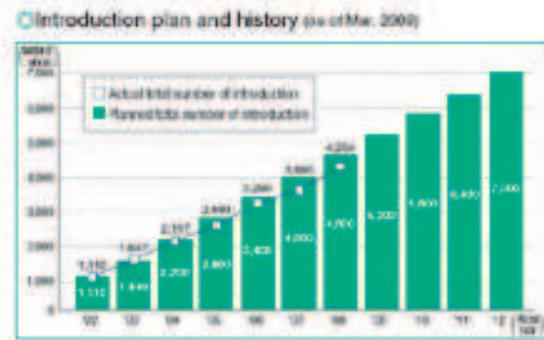
Sagawa executives consider the company to be at a midpoint in its climate change strategy: It is too early to elicit concrete results but too late to change or back down from the strategy.

The company has received positive reinforcement. It has set a benchmark for its industry competitors. It has also improved the morale of its employees. Most tangibly, Sagawa has risen steadily in corporate surveys in Japan for environmental activities. In 2004 it ranked in the late 80s but today it has been raised to the 60s level.

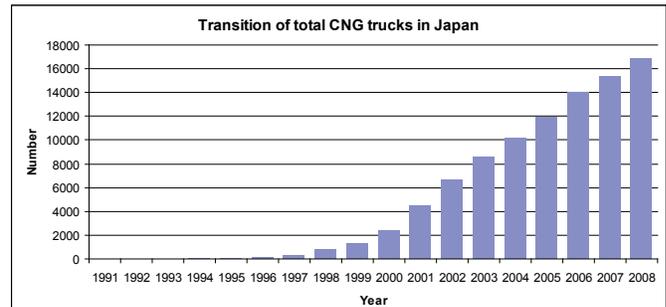
The company's emissions results since 2002 have been in steady decline, apart from an anomaly of 2007 and 2008 due to an acquisition (refer to Exhibit 5). From 2002 to 2006, the company decreased emissions by some 10,000 tons of CO₂. In that same period, emissions from diesel fell by 37,000 tons and natural gas emissions increased by 19,000 tons despite a growing business. This is a clear win for emissions goals.

In terms of finances, cost savings have not yet materialized. The strong will demonstrated by executives at Sagawa shows they are confident that cost savings will come and that the strategy will make business sense. But this remains to be proven with hard numbers. What can be seen, however, is a marked transition from "sunk" environmental costs to a spirit of environmental investment. Sagawa is turning costs into value for the company.

Exhibit 3 CNG Trucks Introduction Plan and History

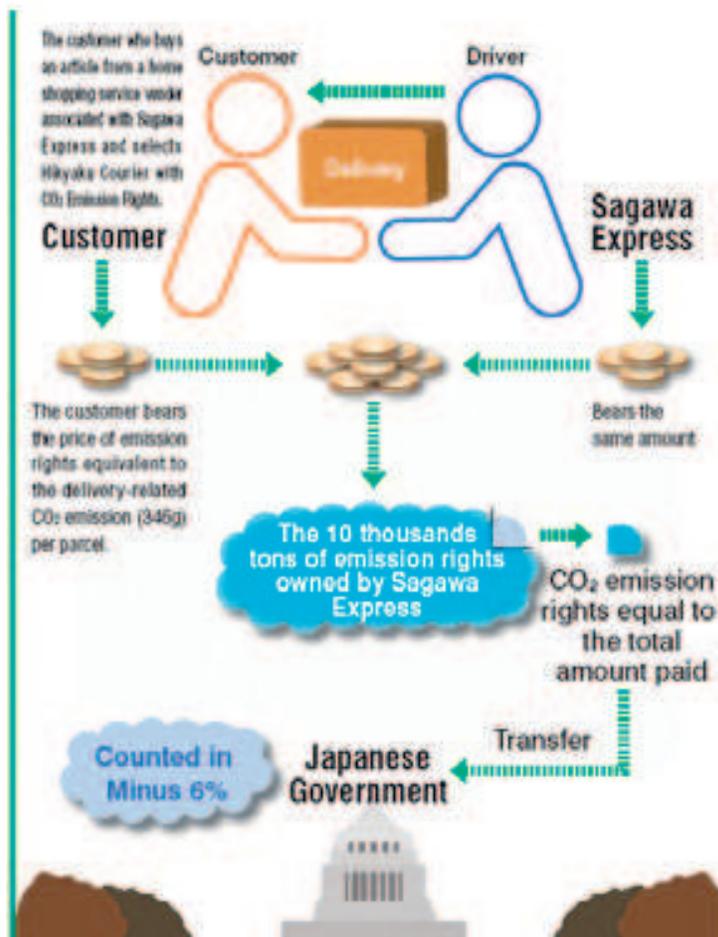


Source: SG Holdings Sustainability Report 2008



Source: Sagawa Express, with data from The Japan Gas Association

Exhibit 4 Mechanism of the “Hikyaku Express with CO₂ Emission Credits” Parcel Delivery Service



Source: SG Holdings Sustainability Report 2008

Exhibit 4

Progress of CO₂ Emissions & Costs of Environmental Accounting

	Diesel oil	Gasoline (including Premium gasoline)	Natural gas	Electric power	Total
2002	244,552	18,780	5,810	97,477	366,619
2003	235,154	17,153	9,660	97,654	359,621
2004	221,888	19,474	14,858	101,459	357,677
2005	217,648	20,741	18,916	97,927	355,232
2006	207,515	25,893	24,300	96,407	354,115
2007	238,886	30,808	28,201	101,307	399,202
2008	236,158	40,028	32,010	96,653	404,849
Changes (08-02)	▲8,594	21,248	26,200	1,176	40,230
Ratio (08-02)	96.57%	213.14%	550.95%	101.21%	110.97%

- * The reference point (the baseline) is the amount in 2002 when we started to work on Climate Savers Program.
- * Scope of statistics: The baseline in 2002 was calculated from statistics that included the electric power consumed by our group companies and tenants located in Sagawa Express's facilities and the fuels sold to outside parties. Since 2004, the scope of statistics was narrowed down to only the business operations of Sagawa Express which is a participant in the program and, for the purpose of comparison with the baseline, an equivalent amount to the CO₂ emission from the electric power consumed by our group companies and tenants located in Sagawa Express's facilities and the fuels sold to outside parties (10,426t-CO₂) was added.
- * Standard of statistics: The Agreement on Climate Savers and the 2008 Environmental Accounting Manual.
- * CO₂ emissions coefficient: The coefficient according to Enforcement Order on the Promotion of Measures against Global Warming (Ministry of the Environment, December 19, 2002).
- * The fuel quantity is calculated from the quantity purchased. Some values are, however, quoted from the data of the quantity filled, based on the company's statistics.

Cost around environmental conservation

(unit: million yen)

Items	Description	2007		2008		Main factors for increase/decrease
		Environmental investment	Environmental spends	Environmental investment	Environmental spends	
(1) Cost within business areas		79	1,028	454	1,000	
① CO ₂	(1) Cost for pollution control (Introductions of oxidation catalyst, construction of sound barriers, etc.)	0	121	2	41	Expense decreased as the mounting of oxidation catalyst to the diesel vehicles has been completed.
	(2) Cost for environmental conservation (Global warming, provision of ozone depletion, flammable gas filled vehicles, solar power generation systems, introduction of energy saving devices, etc.)	73	148	452	178	Investment increased due to new establishments of natural gas filling stations for corporate use at 10 locations.
	(3) Cost for recycling of resources (Recovery of waste, water saving, recycling of tires, etc.)	2	79	0	382	Expense increased due to increase in the amount of recycled engine oil, tires, and batteries.
(2) Cost in support/other areas		—	—	—	—	
(3) Management cost	Introduction of an environment management system, provision of green business management, environmental achievements, environmental education, facilitation of environmental information	0	230	—	143	Expense decreased due to decrease in the number of environment education related events.
(4) R&D cost	Development of services and products relating to environmental conservation, such as Eco-body	—	0	—	79	Expense for special procurement increased related to "Hydru PC Guard".
(4) Cost for social activities	Donation to domestic and overseas environmental organizations, volunteering activities	—	220	—	156	Decrease in the amount of donation and expense for social activities.
(5) Compensatory cost for environmental damage	Measures against asbestos dust	—	0	—	0	
(6) Cost for safety measures	Vehicle inspection, employee education, enlightening activities such as safety measures	—	5,208	—	5,516	Vehicle inspection expenses increased together with the increase in the number of vehicles.
Total		79	6,706	454	7,004	

Source: SG Holdings Sustainability Report 2008