

Case 4: The Environment

CSV Commitment

Actions regarding climate change

For the Kirin Group, global warming is a serious issue. In 2009, it set an ambitious target to reduce CO₂ emissions by half across the Group's entire global value chain by 2050 compared with the 1990 level, and has been working towards that goal ever since.

In March 2017, the Group set a medium-term target to reduce GHGs, whether directly emitted from its business activities or emitted in the value chain, by 30% by 2030 compared with the 2015 level*², and began working to achieve this target in its business operations. As an aspiring initiative, Kirin Brewery introduced a production system that realizes the world's lowest amount of GHG emissions*³.

*² This goal was the first GHG reduction target in Japan's food and beverage industry to be recognized by the international initiative Science Based Targets.

*³ Based on an in-house study



Our Achievement

Reduction of GHG emissions
(Scope 1 and 2)

2030 target

30%
(compared with 2015)

CASE

4

The Environment

Reducing GHG emissions by 36%*¹ and annual fuel costs by 1 billion yen through a switchover to clean energy

*¹ Kirin Brewery has set a higher target for achieving the targets of the Kirin Group.



Sosuke Yoshikawa

Manager, Technology Development Department, Production Division
Kirin Brewery

PROFILE

Sosuke Yoshikawa joined Kirin Brewery in 2005. He was responsible for all energy systems when the company's Shiga Factory was upgraded in 2007. After that, he was involved in engineering operations at the head office, and was assigned to work in Brazil in 2014. Mr. Yoshikawa succeeded in substantially reducing energy consumption while overseeing the construction of the company's beer and beverage factories and implementing innovative energy-saving initiatives. At present, he oversees environmental and energy-related engineering and is in charge of devising forward-looking GHG emission reduction strategies.

Aiming to end dependence on fossil fuels in an effort to reduce GHG emissions

Kirin Brewery reduced its GHG emissions by about 70% over a 25-year period from 1990 to 2015 by applying its leading technological capabilities in the global beer industry and carrying out numerous forward-looking initiatives.

Now the company is taking on the challenge of applying even more technological innovations to achieve GHG emission reduction targets set by the Kirin Group in 2017.

As a means to achieve this, we are aiming to shift our energy sources from fossil fuels to electric power. Both electric power and fossil fuels are currently used as energy sources at our breweries. Comparatively, the largest amount of GHG emissions comes from fossil fuels, which are used to generate heat. Therefore, in order to reduce GHG emissions, we need to improve energy efficiency and reduce the amount of energy consumption. At the same time, we believe that shifting the energy mix to electric power, and, furthermore, using electricity generated by renewable energy sources are the most effective ways of reducing GHG emissions.

Applying our leading engineering capabilities with the aim of realizing the world's best energy system

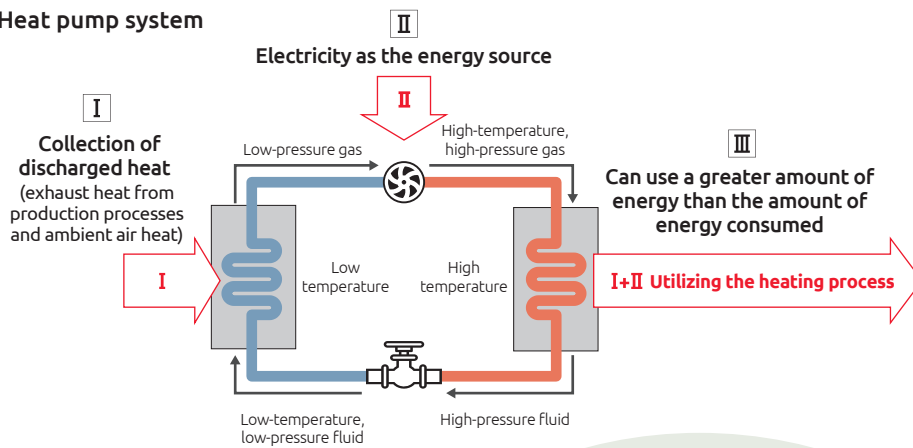
Heat pump systems are a key technology for reducing GHG emissions. We have been able to both save energy and shift to electric power by installing heat pump systems. Simply installing equipment, however, will not necessarily produce results. Before installation, it is essential to analyze the entire heat flow of the production process and optimize it through advanced designs. The Kirin Group has accumulated leading engineering capabilities, and my team made use of that experience while aiming to put in place a production system

that realizes the world's lowest amount of GHG emissions. Through these efforts, we expect to reach our GHG emission reduction target before 2030. Moreover, reducing annual energy costs by 1 billion yen appears to be achievable.

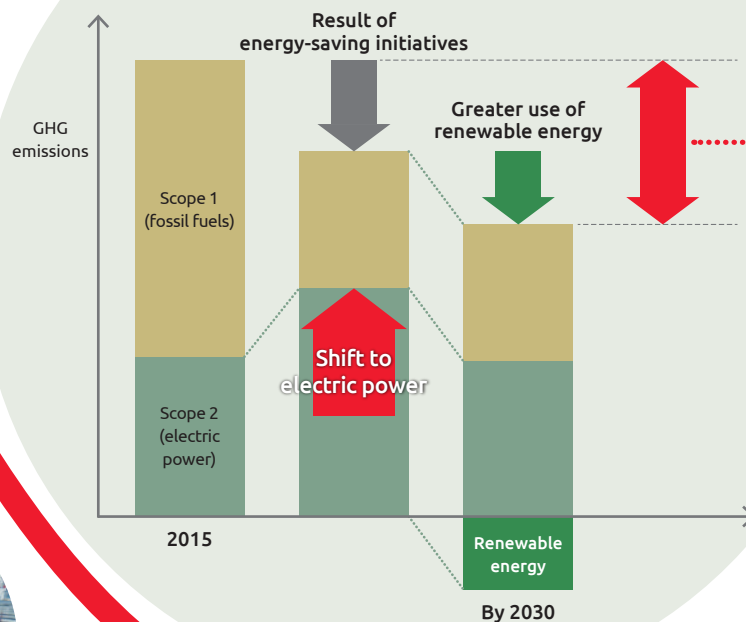
While monitoring results at the Okayama Factory and using it as a model, we plan to successively replace the energy systems at each of our other factories in Japan and abroad from 2019.

Kirin Brewery will continue applying its technological strengths with a view to realize the world's best energy system.

Heat pump system



Method of reducing GHG emissions



GHG emission reduction of **36%*1**
Fuel costs cut by 1 billion yen annually

