

CSR FOCUS AREAS

- Customer Satisfaction and Quality Management (Car Maker/ General Customers and Dealers)
- Employee Health and Safety Management
- Focus 03**
- Climate Change and GHG Management
- Employee Value Creation
- Integrated Environmental Management
- Community Involvement and Development
- Transparency and Business Ethics
- Win-win Supply Chain Partnership

Managerial Issue	2018			2019				
	Goals	Achievements	Completion	Goals	Plans	Deadline	Responsible Team	
Low-carbon management	Becoming an outstanding carbon management company in CDP	· Awarded the 2018 CDP Korea Carbon Management Sector Honors · Received A- in the CDP Supplier Engagement Rating	🚩	Maintaining the status as an outstanding carbon management company in CDP	· Sustain our efforts to maintain Leadership in the CDP Climate Change Rating	Dec.	CSR Team	
	Upgrading the e-Saver, an IT system for energy management	· Added new features of a power overload alarm and automatic settings for target intensity of energy use by process	🚩	Upgrading the e-Saver, an IT system for energy management	· Upgrade the system to utilize big data	Dec.	Production Infrastructure Team	
Reduction of GHG emissions	Introducing high-efficiency facilities	Replacing with LEDs	· Replaced 15,000 fluorescent lights with LED	🚩	Minimizing pump flow and pressure	· Reduce the use of power by minimizing pump flow and pressure	Dec.	Facility Maintenance Team of each plant
		Replacing old pumps	· Replaced old pumps with high-efficiency ones (The 2018 plan was completed.)	🚩	Replacing old pumps	· Continue the replacement work	Dec.	Facility Maintenance Team of each plant
	Recycling energy and preventing leakage	Stabilizing a system for re-using waste heat during the curing process	· Increased the amount of waste heat recovered through data analysis (utilization rate) and system stabilization	🚩	Stabilizing a system for re-using waste heat during the curing process	· Continue our efforts to increase the amount of waste heat recovered through data analysis (utilization rate) and system stabilization	Dec.	Facility Maintenance Team of each plant
		Resolving steam leakage issues during the curing process	· Inspected and replaced steam traps (The 2018 plan was completed.)	🚩	Resolving steam leakage issues during the curing process	· Continue the inspection and replacement of steam traps	Dec.	Facility Maintenance Team of each plant
		Reduced the use of steam by 18% by utilizing automatic traps when discharging condensate water (at the Jiaxing plant)	· Reduced the use of steam by 18% by utilizing automatic traps when discharging condensate water (at the Jiaxing plant)	🚩	Operating an energy patrol	· Prevent the leakage of steam by utilizing automatic traps when discharging condensate water (at the Geumsan plant)	Dec.	KP)Facility Maintenance Team
	Promoting operational efficiency	Implementing a compressor ER (energy recovery) system	· Completed a feasibility study and concluded that the timing of system implementation should be re-examined	🚩	Operating an energy patrol	· Organize a patrol for energy leakage prevention at each plant	Dec.	Facility Maintenance Team of each plant
		Enhancing temperature control for cooling/heating	· Improved temperature control for cooling/heating and prevented power waste at plants and offices	🚩	Introducing a centrally-controlled compressor system	· Use a centrally-controlled system to appropriately change the pressure of compressor according to demand and consequently reduce the use of power	Dec.	DP)KP)JP)MP) Facility Maintenance Team
	Introducing new technology and using renewable energy	Optimizing the pressure for N <sub>2</sub> gas supply	· Set a lower limit of N <sub>2</sub> gas supply pressure to reduce electricity consumed by N <sub>2</sub> gas production facilities	🚩	Participating in the demand-side power management scheme	· Take part in the demand-side power management scheme led by the Korea Power Exchange to contribute to addressing electricity overload at the national level	Dec.	DP)KP)Facility Maintenance Team
		Utilizing absorption chillers	· Replaced turbo chillers with absorption chillers to save energy	🚩	Increasing operational efficiency of chillers	· Improve the efficiency in the use of power through tube cleaning and control of chillers operation	Oct.	Facility Maintenance Team of each plant
		Enhancing boiler efficiency	· Conducted tube cleaning and upgraded tubes for recovering condensate water	🚩	Enhancing boiler efficiency	· Maintain appropriate air ratio by adjusting the air-fuel ratio of boilers for fuel efficiency	Oct.	DP)KP)Facility Maintenance Team
Adopting photovoltaic power generation at the Jiaxing plant (installation)		· Installed photovoltaic power generating units on the roof of the China Technical Center (CTC) a research center located in the Jiaxing Plant	🚩	Adopting photovoltaic power generation at the Jiaxing plant (power generation)	· Contribute to about 300tCO <sub>2</sub> -eq reduction of GHG emissions by generating and supplying green electricity utilizing the photovoltaic power generation system.	Dec.	JP)Facility Maintenance Team	
Using externally-generated low-carbon steam	Using externally-generated low-carbon steam	· Completed a feasibility study and installation and planned the start of its operation in 2019	🚩	Using externally-generated low-carbon steam	· Utilize externally-generated low-carbon steam that includes thermal energy from biomass at the Daejeon plant, reducing GHG emissions by about 12,000tCO <sub>2</sub> -eq per year	Mar.	DP)Facility Maintenance Team	
	Conducting a feasibility study on adopting CHP (Combined Heat and Power) generation	· Completed a feasibility study on introducing CHP to domestic plants	🚩	Reviewing the feasibility of introducing biomass fuels	· Review a project to reduce CO <sub>2</sub> emissions by using wood pellet fuel from the Geumsan plant	Oct.	Production Infrastructure Team	
	Reviewing the introduction of ESS (Energy Storage System)	· Reviewed the feasibility on adopting ESS at the Geumsan plant	🚩	Conducting a feasibility study on the introduction of power reduction facilities	· Review the technology that allows optimal current flow and power loss reduction by supplying magnetic wave energy	Dec.	Production Infrastructure Team	