



HYUNDAI ENERGY EFFICIENCY SOUTH KOREA

**Reusing waste gas to power large-scale
manufacturing processes and supply
electricity to the grid**



While steel has been a crucial building block of South Korea's economic development, it involves energy intensive production processes and contributes heavily to global carbon emissions. This project uses surplus waste gases to generate electricity, which is exported to the grid, and to improve the energy efficiency of the mill by channeling them back into powering manufacturing processes.

The Context

The steel industry plays a key role in the economic growth of South Korea by steadily providing materials to other industries such as shipbuilding, construction and automobiles. While steel has been a crucial building block of the urban world in and beyond South Korea, it involves energy intensive production processes and contributes heavily to global carbon emissions.

The Project

Located at a steel mill in Dangjin Province, South Korea, this project addresses the challenge of energy efficiency: With the help of a newly constructed cogeneration power plant, the waste gas generated by the mill's blast furnaces and coke ovens is reused to power production processes. In addition, the electricity and steam generated by the project help reduce the mill's power consumption from the grid.

The Benefits

In the absence of this project, a large amount of combustible waste gas would be flared or even released directly into the atmosphere, polluting the air and further speeding up global warming.

By improving energy efficiency of manufacturing processes, this project reduces carbon emissions and avoids drastic air pollution.



Energy efficiency

gains by reusing waste gas to power production processes.



1,770,000 tCO₂e

reduced annually from improved energy efficiency measures.

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: Hyundai Steel Waste Energy Cogeneration Project, South Korea | **VCS link:** http://www.vcsprojectdatabase.org/#/project_details/786 | **VCS ID:** 786

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