



Systematically optimising processes

Our aim is to continuously cut water and energy consumption in production processes within our Gases Division in particular. At the same time, we are looking to permanently reduce air and water emissions and waste levels.

Improving productivity at our air separation plants

Resource efficiency is essential to optimise energy consumption, air and water emissions, water consumption, waste volumes and transport logistics. See Corporate Responsibility at linde.com for more information on each of these areas.

The business of producing industrial gases is energy-intensive, so cutting consumption and using energy efficiently is one of our main production challenges. All progress on this front helps reduce greenhouse gas emissions.

The Linde Group's total energy consumption includes our use of fuels and energy from external power plants, such as electrical energy and district heating. Electricity and natural gas are our main sources of energy here, required in particular to operate our air separation and HyCO plants. Over 80 percent of the electricity we consume is used in the course of air separation, and our HyCO plants account for around 90 percent of our natural gas consumption.

We are constantly optimising our production processes to improve the productivity and energy efficiency of our plants. Innovations and energy management programmes are the key to a more economical use of energy and lowered greenhouse gas emissions.

Worldwide environmental projects

In our Continental & Northern Europe Regional Business Unit (RBU), we pursue a number of channels to optimise our plants and delivery processes.

The electricity saved just by using a new turbo compressor for oxygen in our air separation plants amounts to around 13,000 megawatts per year, for instance. To promote this type of achievement within our organisation, we have launched an energy prize for air separation plants in Germany. This is awarded to plant managers who achieve the most energy-efficient ratings.

In IJmuiden, the Netherlands, we initiated a production optimisation project at our air separation plant. Energy savings from this are estimated at 6,700 megawatt-hours per year. Another project at the same location has also cut energy consumption by a further 700 megawatt-hours per year by reducing the temperature of the coolant in winter months. We have also taken measures to make the distribution of our gases by truck more efficient and environmentally friendly.

In addition, we have modernised our fleet in Germany, replacing several five to six year-old trucks with new, lighter vehicles. Offering lower fuel consumption, these new vehicles comply with EURO4 or even EURO5 emissions standards. And we hold special eco-driving training courses to help our drivers increase fuel efficiency.

We transfer programmes that have successfully minimised environmental impact to projects at other sites across the globe in line with our best practice policy. See Corporate Responsibility at www.linde.com for examples of these programmes and projects at RBU level.

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