



碳减排先锋
Defensores do Clima
クライメート・セイバーズ
Climate Savers



Changing diabetes, demonstrating green growth.

Novo Nordisk is a healthcare company and a world leader in diabetes care.

“Through Novo Nordisk’s commitment to the Triple Bottom Line we are determined to minimize the impact of our activities on the global, regional and local environment. The partnership with WWF plays a significant part in helping us achieve this.”

Lise Kingo
Executive vice president and chief of staffs

How Novo Nordisk has promised to fight climate change

The Climate Savers commitment of Novo Nordisk, world leader in diabetes care, is to an absolute reduction in CO₂ emissions of 10% by 2014 compared to 2004.

The company has also committed to a reduction of 50,000 tons per year in 2010 compared to the business as usual scenario for 2010.

The Novo Nordisk achievement

From 2007 to 2008 Novo Nordisk’s CO₂ emissions fell for the first time, from 236,000 to 215,000 tons – a reduction of 9% in absolute figures. The decrease in CO₂ was primarily due to decreased emissions from the production site in Kalundborg in Denmark as a result of changes in production, process optimization and energy-saving projects. Novo Nordisk’s annual CO₂ emissions are now only 2% above the baseline year (2004), and Novo Nordisk is confident that the ambitious 10% absolute reduction target will be met in 2014.

In 2007, 50 energy projects were implemented, and in 2008, 112. These projects reflect the positive business case for CO₂ reduction: more than half of them have a payback period of less than 1 year.

Ambition and transparency

Novo Nordisk’s commitment to reducing CO₂ emissions by 10% below 2004 levels by 2014 is ambitious – in the absence of emission reduction programs, emissions would increase by approximately 65% during this period, driven by the increasing need for insulin driven by the diabetes pandemic.

The reductions are being achieved through a mix of energy efficiency and renewable energy projects carried out at Novo Nordisk operations globally.

Novo Nordisk are implementing specific energy efficiency measures – through application of best practice technologies in both new and existing plants – which will deliver cuts of at least 30,000 tons CO₂ annually (roughly 20% of the total amount of CO₂ emission reductions per year for the current base year data).

Transparency is important, and Novo Nordisk therefore includes the performance on reducing energy consumption and CO₂ emissions in Novo Nordisk’s *Annual Report*.

Investing energy efficiency savings in green energy

In May 2007, Novo Nordisk entered into a pioneering partnership with Denmark’s largest energy company, DONG Energy, with the objective of securing 100% delivery of green electricity for Novo Nordisk in Denmark by 2014.



Novo Nordisk produces pharmaceutical products and devices for the treatment of diabetes, hemophilia and growth and hormone disorders.

Under the partnership, DONG Energy assists Novo Nordisk in identifying energy-saving options and in return Novo Nordisk commits to earmark the financial saving from these projects for purchasing green electricity.

With this agreement Novo Nordisk has devised a cost-neutral way to achieve significant reductions in CO₂ emissions – and at the same time help grow the market for renewable energy in Denmark.

The energy is supplied from a new offshore wind farm – Horns Rev II – which will be in operation in 2009. The partnership will deliver an expected reduction of 80 –100,000 tons CO₂. It is expected that the first green electricity will be delivered in 2009.

Energy management is now introduced at all Novo Nordisk production sites worldwide as part of the ISO 14001 environmental management system, and the energy saving program is paying off. Energy saving projects implemented since 2005 have resulted in reductions of an estimated 20,000 tons of CO₂. The target for 2014 is a reduction of 30,000 tons CO₂ through energy saving projects.

Novo Nordisk continues to investigate new opportunities for improved efficiency and renewable energy across its operations. For example, the Brazilian production facility in Montes Claros is now using biomass instead of fuel oil for steam production. Compared to the business as usual scenario from 2005, this will give 16,000 tons of CO₂ emission reductions in 2014.

Novo Nordisk has also built significant energy and water efficiencies into the new production facility currently under construction in Tianjin, China. This facility is expected to open in 2012 and as a result of eco-efficient design will need less energy than similar production facilities elsewhere.

Innovation, cost savings – and speaking out

New Novo Nordisk facilities start considering their environmental impacts in the planning stage, which leads to substantially greater energy efficiency gains. For example, integration of environmental design at the purification plant for insulin production in Kalundborg, Denmark is estimated to have reduced electricity consumption by 8%, produced buildings that are nearly self-sufficient in area heating requirements, reduced steam consumption by 21% and reduced CO₂ emissions by 23%.

The total financial savings resulting from timely environmental interventions during the design phase of the purification plant is estimated to be 400,000 annually. Due to these interventions, savings in investment costs associated with clean steam have totalled approximately 536,000 Danish Crowns (approx. 70,000 Euros).

Novo Nordisk's experience is that implementing energy savings up front generates wins – but does also require challenging new thinking in terms of both organization and consultants. It requires a move away from “business as usual” and the narrow-minded focus on simple investment towards a holistic approach which also takes operational and maintenance costs into consideration when analyzing the business case.

Novo Nordisk speaks out about and shares its success in emission reduction. Novo Nordisk is a member of the Copenhagen Climate Council (www.copenhagenclimatecouncil.com) and main sponsor of the May 2009 World Business Summit on Climate Change in Copenhagen. Novo Nordisk participated in the COP14 in Poznan and signed the Poznan Communiqué of the Corporate Leaders Group; the company also signed the Bali Communiqué in 2007.

In 2008, an internal climate action campaign was launched under Novo Nordisk's corporate volunteering program – TakeActio₂n! The campaign communicates energy saving advice to employees and encourages employees in office departments and sales affiliates to engage in energy saving projects.