



Caring for the Climate Initiative

CEO Statement

'As the leaders in our industry, we are using our strengths to meet environmental challenges in two fundamental ways. Firstly, solutions to the way we minimize energy usage when we are designing and producing all our products. From blueprint to production, distribution, installation and use, we ensure that our environmental footprint is as minimal as possible. And secondly, innovations that deliver energy-efficient and practical solutions to meet water-related challenges globally. When we develop solutions for the water cycle, our core business, which will be beneficial for the environment through reduced carbon emissions, our customers also benefit through savings in energy costs during the lifetime of our products.'

A handwritten signature in black ink that reads "John P. Williamson".

John P Williamson
CEO, ITT Water & Wastewater

Caring for Climate Voluntary Targets

1. Energy consumption reduction: 5 % annual reduction from 2009-2012.
2. Transport efficiency improvement on main selected routes*: 5 % annual reduction from 2009-2012.
3. Annual product efficiency index increase of 0,5 % – with the product efficiency index we calculate the average energy consumption of all our sold pumps during one year.

* "Greenhouse gas emissions/ton km" from the plant in Sweden to and from China, and to the two distribution centres and from the two plants to the sales companies.

Read more on www.ittwww.com/sustainability



Climate Friendly Outcome

Electricity Consumption

ITT Water & Wastewater's total annual electricity consumption was 64 388 141 kWh in 2008. The Emmaboda plant (110 000 m² indoor area) uses 2/3 of the total amount for the entire company. All electricity at the Emmaboda plant is purchased as green electricity.

Yearly usage has been 40-41 GWh/year since 2000. During this time the production level has increased from 210 000 to 310 000 tonnes. This is equivalent to a 37 % decrease measured as MWh/ delivered tonnes, in eight years (the relation of purchased material have been the same).

The reduction is achieved mainly through daily energy management:

1. Daily supervision and adjustment of electricity through a central control system.
2. Time management - policy and follow-up of "shut off when not in use".
3. Efficiency management. When above a maximum level, certain equipment is disconnected, such as washing equipment.
4. Monthly energy report. Installing 75 units of monitoring equipment for electrical consumption in addition to the main measuring device.

District Heating Consumption

The purchase of district heating has decreased in Emmaboda plant from 11 GWh in 1999 to 4,8 GWh 2008 and the target for 2012 is 2,8 GWh.

The ideas for reductions emanate from the daily management and supervision from a central control system.

- Utilization of waste heat from as many waste heat sources as possible.
- Demand based control of data from air quality sensors, which are located in all buildings and rooms. Heat and ventilation is managed on a daily basis, depending on need and activity.

Specific highlights during the period 2000-2008:

- Recycling batteries installed on three dust filters for exhaust from foundry. Saves 1,8 GWh/ year.
- Waste heat from the compressor central is used for hot water showers in the entire factory. Saves 800 000 kWh/year.
- Installation of heat pump in data facility for servers. The heat is now transferred into the local heating system. Annual saving: 500 000 kWh.
- Recovery of waste heat from hardening furnace. Saves 250 000 kWh/year.



Strategic Highlights

District Heating

A bore hole thermal energy storage is projected and designed to make waste heat recovery from the foundry in Emmaboda more efficient. The system consists of 140 boreholes at a depth of 150 m, acting as a heat exchanger. The waste heat will be stored over summer to about +60° C and recovered in the winter at around +40° C. This will replace about 2 800 MWh of purchased district heat annually. Green electricity will be used to run the system without any emissions of CO₂ or other environmentally harmful substances. CO₂ emissions will be reduced by 1 500 tonnes annually if it could replace the use of oil elsewhere in the community of Emmaboda. The project is in a phase of internal approval of investment and will partly be financed through climate investment funding through the Swedish EPA (Environmental Protection Agency).



External Transports

- During 2009 we will investigate the pre-requisites to transport goods on railway instead of road.
- During a 2009-2012 we will reduce air freight transportation with 20 % by improved logistics planning.

Product

We use Design for Environment (DFE) and Life Cycle Assessments (LCA) for all new pumps. Our LCA has brought to light the fact that about 90 % of the environmental impact of our products occurs in the user phase. This information has been the key in our efforts to increase our product's energy efficiency. It is our grounding policy that a new product should deliver better environmental performance than the one it is replacing.