



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



Carbon cuts through enhanced technology.

Nokia Siemens Networks is one of the world's largest telecommunications infrastructure companies.

“We are 60,000 people who connect billions of others around the world. We know we can – and must – make a difference. Our partnership with WWF Climate Savers is a powerful and effective way to help us make that difference.”

Simon Beresford-Wylie CEO

How Nokia Siemens Networks has promised to fight climate change

Nokia Siemens Networks' Climate Savers commitment is to:

- Improve the energy efficiency of their GSM/EDGE and WCDMA/HSPA base station products by up to 40% by 2012
- Decrease the energy consumption of their buildings by 6% by 2012
- Increase the use of renewable energy in company operations to 50% by the end of 2010.

The baseline for each of these commitments is 2007, and on completion, the actions will decrease the company's CO₂ footprint by approximately 2 million tons annually, compared to 2007.

Energy efficiency: combining environmental and business benefits

Energy efficiency is the most important factor for Nokia Siemens Networks, as around 80-90% of a mobile operators' energy is used by the network. And even more crucially, energy-efficient base stations are important because base station sites account for 80-90% of the total energy consumption of mobile networks.

Nokia Siemens Networks' energy efficiency solution offers four main ways to reduce energy consumption of base station sites:

- The most energy efficient products: Nokia Siemens Networks Flexi Base Station provides up to 70% savings on energy. The superior energy efficiency is further improved by the recently launched (Feb 2009) Flexi Multiradio. This new base station has the lowest energy consumption in the whole market, consuming as little as 790W, while running both GSM/EDGE and WCDMA/HSPA BTS at same time. Nokia Siemens Networks Flexi Base Station was also recognized as the world's most progressive mobile network technology at the annual GSMA Global Mobile Awards 2009.

Due to its small size, the Flexi Base Station is also the best-in-class in material consumption – and is easy to implement: modules can be hand-carried as opposed to being moved by heavy equipment. Over 90% of the materials the Nokia Siemens Networks base stations are made of can be recycled

- Minimizing the number of base station sites: building a network with a minimum number of sites is an effective way to be energy efficient. The use of innovative products such as the Flexi Base Station concept means new types of sites can be created in previously non-viable locations. Small equipment has less visual impact on the environment, and needs less transport for delivery and less machinery for installation

- Minimizing air-conditioning: in the traditional base station site concept, the equipment is located in an indoor site with air conditioning to control the typically allowed temperature of 25°C. This increases significantly the total site energy consumption. By allowing the ambient temperature to reach 40°C, Nokia Siemens Networks Flexi Base Station generates savings of up to 30%. This is achieved by replacing air-conditioning units by fresh air cooling – a natural feature when the unit is located outside
- Deploying software features to optimize the use of carriers: software can provide creative and effective ways to improve the energy efficiency of base stations. During low traffic periods, a major part of base station capacity is unused for many hours, so it can be set to power save mode, which shuts down part of the base station network to save energy. In extreme cases, a complete capacity base station may be shut down during low traffic.

By reducing the overall energy consumption of base stations it becomes more viable to consider renewable energy solutions such as solar or wind power. Payback times for higher initial investment have already come down in the past few years and can be around three years today.



Compact Nokia Siemens Networks Flexi Base Station provides up to 70% savings on energy.

Positive action inside the company

The percentage of renewable energy used in Nokia Siemens Networks buildings doubled from 9% to 18% during 2008. During 2009, Nokia Siemens Networks plans to further increase the use of renewable energy from 18% to 25%. The target is to increase the use of renewable energy in company operations to 50% by the end of 2010.

Nokia Siemens Networks aims to improve the energy efficiency of its buildings by 2% in 2009. The company target is to decrease the energy consumption of its buildings by 6% by 2012 through the Global Energy saving program for offices, R&D and factory buildings, with the focus on technical systems (ventilation, cooling, heating, lighting etc.); the baseline is 2007.

Nokia Siemens Networks has what it calls 'the greenest car policy in Finland', which encourages employees to choose cars with lower emissions: the policy includes monetary incentives that encourage employees to choose more environmentally friendly vehicles. The maximum emission limit is 240g/km, and below emissions of 170g/km the company portion of the leasing fee starts increasing. For example, when an employee chooses a car with very low emissions (130g/km or below) the company share of the leasing fee doubles. The company service fleet is part of the green car policy: the target is to reduce the CO₂ emission level of new cars in the service fleet to 120g/km in 2010.

Nokia Siemens Networks is aware that most employee travel – and the emissions associated with it – relates to work, in terms of commuting or business travel. Thus the company is also focusing on reducing air miles, through encouraging virtual collaboration (teleconferencing, videoconferencing, etc).