



Roche Position on Energy Conservation

Roche's position

Energy is essential to all human activities and to life itself. The world depends upon reliable and secure energy supplies, and expects affordable, safe and sustainable energy to be available at all times. However, there are a number of issues and concerns related to the supply and use of energy.

Being aware of these issues, we are acting now to ensure a sustainable energy future. Delaying actions is not preferred, as this is likely to necessitate more dramatic, more disruptive, more expensive changes in the future. We understand energy conservation to be the most effective way to holistically address the many multi-faceted energy issues. Hence, our immediate focus is on reducing energy consumption and improving the energy efficiency of our operations, because this makes the biggest positive difference. In the long term, we want to move away from non-sustainable energies (i.e. fossil fuels, nuclear power) and we have already started to increase the use of energy sources and technologies with less environmental impact. If reasonable, Roche invests in renewable energy technologies and purchases 'green' energy. Asking for innovative, sustainable and energy efficient technologies and products will encourage suppliers to develop and commercialise such technologies and products.

Roche expects to see an increased shift away from non-sustainable energy. The energy industry will need to provide reliable access to a well-balanced mix of technologies and geographically dispersed energy resources. This will require new and innovative technologies. We believe that all promising options should be pursued, and energy technologies should be selected based on their human, environmental and economic impact.

Roche prefers voluntary action. Should regulations be introduced, Roche would welcome flexible frameworks that allow sufficient time and technical, organisational and procedural freedom for change and development. For example, reasonable transition periods are vital to enable appropriate action to be taken in the course of normal capital replacement cycles. Roche also believes that appropriate frameworks are needed to support research and development, to encourage businesses to innovate and develop new technologies and to promote the utilisation of sustainable energy technologies and renewable energy.

Energy is an issue of global proportions that needs to be addressed by all of us, on both a local and global scale. At Roche we are strongly committed to contributing to a sustainable energy future.

The global situation

All energy resources have limitations that prohibit their infinite utilisation, be it finite fossil fuel and uranium resources, the competing use of arable land for energy crops, the limited number of suitable sites for solar, geo-thermal or hydro power facilities as well as monetary constraints. Coupled with ever increasing world consumption– due to rising population and increasing living standards - energy shortages are inevitable unless we step up conservation efforts. The rush for limited resources has already begun, resulting in a significant rise in energy prices, and this upward trend is expected to continue. The marked geographical and geopolitical imbalance between the world's net energy consumers and its net energy suppliers causes severe price fluctuations, supply interruptions and political tension.

Faced with instantaneous supply interruptions caused by events such as technical failure, instable distribution grids, natural disasters, malicious or terroristic acts, etc. industries need to act to secure reliable supply.

From an environmental perspective, all energy activities (e.g. exploration, extraction, transportation, conversion and use) have either direct or indirect adverse impacts. Obvious examples include the destruction of natural resources and habitats, damage of eco-systems, the contamination of soil and water, (hazardous) waste landfilling and air pollution. Burning fossil fuels for energy generates air pollutants such as carbon oxides, sulphur dioxide, nitrogen oxides and respirable dusts, all of which have negative impacts. For example, CO₂ emissions caused by human activities are widely believed to contribute to global warming and climate change. For more on this topic, see our position paper on climate change (*link below*).

Incidents related to energy activities (like the Deepwater Horizon oil incident or the Fukushima nuclear incident) have catastrophic and long-lasting effects on people, environment and business. Vast areas become devastated and contaminated and local people are stripped of their livelihood. The financial consequences are enormous since contaminated land cannot be commercially used and remediation costs for such catastrophes are very high.

To address safety, environmental and supply security issues associated with energy activities, more and more legislation is being introduced. These, in turn, limit exploration, extraction and processing and have direct effects on energy costs.



The situation at Roche

Like any company, Roche requires energy to operate. We use energy primarily to heat and cool production processes, run machinery and equipment, maintain controlled air environments, provide comfort heating and cooling and for transportation and business travel.

In 2006, we implemented an in-house energy conservation directive. This directive is designed to ensure that all decision making at Roche supports the efficient, appropriate and cost-effective energy use. Energy usage must be managed with the same scrutiny as any other business expense in all business areas. The design of new energy users, such as equipment, machinery, buildings and vehicles used for business purposes, must comply with Roche internal energy efficiency standards. Larger investments undergo energy efficiency reviews to ensure project teams are giving due attention to energy conservation and energy-efficient design. To foster investments in energy conservation, we use distinct “Life Cycle Analyses” that ensure the true balance of costs and benefits of energy efficiency investments are being captured. The objective behind this approach is to direct investments towards the most efficient and financially competitive options for conserving energy.

With the understanding that energy conservation is the most effective way to address all energy related issues, we have a running goal to improve energy efficiency by 2% each year. Sites have developed action plans which are closely monitored for implementation and effects. These energy conservation efforts result in higher resource productivity – producing more with less impact on natural resources – and increase our operational eco-efficiency, which is well perceived by the public and reflected in the high score in the Dow Jones Sustainability Index (DJSI) SAM rating. In pursuit of our longer term goal to move away from non-sustainable energies, we set the goal to increase the share of sustainable energies up to 20% by year 2020.

Roche increasingly relies on more environmentally friendly primary energy sources. Natural gas supplies most of the Group’s current energy needs, with fuel oils accounting for only a small proportion of energy use. Roche successfully phased out the use of coal in 2005. When circumstances permit, Roche invests in technologies using sustainable energy sources such as solar and geothermal energy. Group purchases of sustainable energy from outside suppliers remain fairly limited at present owing to market and contractual constraints.

In our pursuit of sustainability, we make every effort to prevent adverse impacts on people, the environment or our business. This means systematically analysing and evaluating all risks associated with energy-related activities and taking appropriate measures to reduce potential risks to acceptable levels. Using the same evaluation scheme, energy supply chain risks that could affect business continuity are also evaluated, and if risks are deemed unacceptable, appropriate back-up solutions are implemented.



Further information

Roche Group sustainability reports (including safety, health and environmental protection):

http://www.roche.com/investors/annual_reports.htm

Position paper on greenhouse gases and climate change:

http://www.roche.com/global_position_greenhouse_gases_climate_change.pdf

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