

# ABB中国2007年可持续发展报告 The ABB China Sustainability Report 2007

## ABB集团及其在中国的发展

ABB致力于可持续发展,努力在经济发展、环境保护和社会进步之间实现平衡,从而使所有利益相关方受益。

ABB对可持续发展的重视体现在方方面面,包括如何设计和制造产品、向客户提供何种产品和服务、如何与供应商合作、如何评估风险和机遇,以及我们如何在社区履行自己的责任并与其进行互动。此外,ABB努力在职业健康与安全方面追求卓越。

ABB是电力和自动化技术领域的全球领导厂商,致力于为工业和电力行业客户提高业绩,同时降低对环境的不良影响。ABB集团的业务遍布全球100多个国家,拥有115000名员工。

ABB迄今在中国已拥有一家控股公司、26家合资与独资企业、在60个主要城市设有销售与服务分公司和13000名员工,并拥有研发、生产、销售与服务全方位业务。2007年ABB在中国的订单额达到41亿美元,销售额达到34亿美元,从而跃居ABB集团第一大市场。

	ABB在中国的百年历程 100 years' journey in China	
1907	向中国供应第一台蒸汽锅炉 Provide first steam boiler to China	
1974	在香港设立中国地区办事处 First office for China established in Hong Kong	
1979	在北京设立永久性办事处 Permanent office established in Beijing	
1992	建立第一家合资企业 First manufacturing JV established	
1995	在北京建立投资性企业——ABB(中国)有限公司 ABB's China holding company ABB (China) Ltd. set up in Beijing	
2003	当选中国"十佳雇主" Ranked among "top 10 employers" in China	
2005	在北京和上海设立研究中心 Set up research center in Beijing & Shanghai	
2006	全球机器人业务总部落户中国 Global robotics division's head office relocated to China	
2007	四个全球业务单元在华设立技术中心 Four global centers of expertise set up in ABB China	

## ABB and its presence in China

For ABB, sustainability is about balancing economic success, environmental stewardship and social progress to benefit all our stakeholders.

Sustainability considerations cover how we design and manufacture products, what we offer customers, how we engage suppliers, how we assess risks and opportunities, and how we behave in the communities where we operate and towards one another. We also strive for excellence in health and safety performance.

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 115,000 people.

ABB has a full range of business activities in China, including R&D, manufacturing, sales and service, with one holding company, 26 joint ventures and wholly owned companies, and an extensive sales and service network across 60 cities, supported by 13,000 employees. China is ABB's largest country market, with a revenue of 3.4 billion USD and a total order of 4.1 billion USD in 2007.

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封面摄影: 李保东/北京ABB低压电器有限公司 Cover photo taken by Li Baodong/CNIIB

## 总裁致辞

可持续发展事关我们的业务增长,也是我们取得成功的重要因素



柯睿思 ABB北亚区总裁 ABB(中国)有限公司董事长兼总裁 Brice Koch President, ABB North Asia Region Chairman and President, ABB (China) Ltd.

提升ABB与客户双方的绩效、通过创新取得成功、吸引并留住最优秀的人才、承担企业公民责任, 这些都是ABB的使命。而可持续发展正是ABB完成这些使命不可分割的一部分。

作为提高绩效的一种重要手段,ABB通过开发增效节能产品、系统和解决方案,帮助客户节能减排,缓解气候变化的影响。这些产品既提高了电网稳定性,完善了工业流程,同时节约了能源,降低了对环境的不良影响。

增效节能理念与ABB产品密不可分,同时贯穿我们整个生产过程。事实上,增效节能已深深融入 ABB的企业文化之中。如今,ABB大部分销售收入就来自增效节能产品。

ABB另一项重要使命便是创新,这是ABB履行可持续发展诺言永恒的主题。ABB分布于全球的6000 名科研人员遵循强制性可持续发展指导原则开展工作,旨在确保正在开发的每款新产品定型前均能 通过严格的标准认证,并了解该产品在其整个生命周期内对环境的影响。

但技术研发仅仅是ABB创新的一个组成部分。我们还希望拓宽员工的视野,使其广泛了解ABB在社会中所扮演的角色,以及我们对利益相关方所承担的责任,这其中不仅包括投资者和客户,还包括周围的同事和社区。

除此之外,通过负责任地做事和高标准的公司治理,以吸引并留住专业人才,则成为ABB的另一项重要使命。

我们肩负的使命都传达了这样一个重要信息:可持续发展不是做秀,也不是可有可无的,它事关ABB的长远发展,是提升公司绩效,铸就成功的核心因素。

但我们仍然面临巨大的挑战。只要我们时不时还能发现到自己的问题,我们就不能自称已经完满地 履行了我们的责任。可持续发展之路是漫长的。但只要我们履行承诺并不断向前奋进,这个世界每 天都会变得更加美好

柯睿思 ABB北亚区总裁 ABB(中国)有限公司董事长兼总裁

## President's letter to stakeholders

# Sustainability is part of our business, part of our success

ABB's mission is to improve performance - our own and our customers' - drive innovation, which is essential to success, attract and retain the best people, and act responsibly as a corporate citizen. Sustainability is an integral part of this mission.

One of the key ways in which we improve performance - and help to reduce emissions and mitigate climate change - is by developing energy-efficient products, systems and solutions for our customers. These products strengthen power grids and improve industrial processes, while saving energy and lowering environmental impact.

Energy efficiency is deeply embedded in what ABB produces and how we manufacture. It's part of our DNA. A significant proportion of ABB's revenues now comes from products that increase customers' energy efficiency.

Another part of our mission is to innovate, and here ABB's sustainability commitment is ever present. Our 6,000 researchers and scientists around the world refer to mandatory sustainability guidelines to ensure that every new product being developed passes strict criteria before it can be completed, and that its impact throughout its life cycle is known.

But innovation is about more than technology development. We want our employees to share a broader vision of the company's role in society, our responsibilities and accountabilities to all stakeholders - not only to investors and customers but also their colleagues and local communities.

Another aspect of our mission highlights the need to act responsibly and adopt high governance standards which, in turn, help us to attract and retain dedicated and skilled people.

These different aspects of our mission serve to underline a core message: Sustainability is part of our business; it's not an add-on or a "nice-to-have." It is core to our business performance and success.

However, we still face considerable challenges. We cannot claim to be behaving with full responsibility when we have issues from time to time in certain areas. Sustainability is a long journey. But as long as we are all committed and keep walking forward, the world will get better each day.

Brice Koch

Buch

President, ABB North Asia Region Chairman and President, ABB (China) Ltd.



# 致力于更加美好的世界 Contributing to a better world

ABB提供的产品、系统和解决方案帮助我们和客户双方实现节能减排和成本降低的目的。这里列举了几个ABB产品和技术如何帮助客户降低能耗,缓解气候变化影响的案例,这正体现了ABB的口号"Power and productivity for a better world"。

ABB's products, systems and solutions save energy, cut emissions and reduce costs - for customers and in the company's manufacturing plants. Here are some examples of how ABB is working to save energy and mitigate climate change, fulfilling its slogan of "Power and productivity for a better world."

- 成都: ABB i-Bus智能安装系统帮助成都双流机场 国际厅一层出港大厅节约电能30%以上,同时投 资在一年内即可收回。
- 哈尔滨: ABB总承包的哈尔滨道里区域集中供热项目使用附近电厂的循环热水,每年节省燃煤30万吨,减少二氧化碳排量50万吨。
- ■北京: ABB技术增强北京奥运设施电力稳定。作为北京奥运电力建设重点工程之一,北京朝阳500千伏变电站工程使用的ABB主变压器一年就可节约近30万度电。

- Chengdu: ABB i-Bus control system can save over 30% of power consumption for Chengdu Shuangliu Airport, and the investment is paid back in less than one year.
- Harbin: ABB completed the delivery of one of the largest district heating projects in Harbin, which uses recycled hot water from a local plant and eliminates 500,000 tons of greenhouse gas emissions a year.
- Beijing: ABB's leading edge technologies contribute to increase power reliability for Beijing Olympics. About 300,000 kWh power will be saved annually due to lower losses of main transformers at the new Chaoyang 500 kV Substation in Beijing, one of key power construction projects for Beijing Olympics.

- 三峡: 三条高压直流线路(三峡至常州、三峡至上海和三峡至广东)节省的电力损耗可供50万户家庭的使用,同时节省了大量的农田和建设用地。
- 云南: ABB成功中标云南铝业股份有限公司冷轧机电气设备项目,其先进的自动化解决方案帮助客户铝加工能力提高80%。
- ■上海: ABB与上海焦化有限公司签署节能改造项目合作协议。ABB节能产品预计能为客户节电达140万千瓦时,相当于每年节约近600吨标准煤。
- Three Gorges: ABB built three high-voltage direct current lines (Three gorges to Changzhou, Shanghai and Guangdong), saving enormous power corresponding to total consumption needs of 500,000 households, and significantly reducing the use of farmland.
- Yunnan: ABB's advanced automation solutions will help Yunnan Aluminum increase energy efficiency and operational reliability, increasing its aluminum processing capacity by 80%.
- Shanghai: ABB joined hands with Shanghai Coking & Chemical Corporation on an energy reduction project. According to estimation, ABB's cutting-edge technology can reduce its power consumption by 1.4 million kWh, equivalent to a saving of 600 tons of standard coal a year.

# 增效节能和气候变化 Energy efficiency and climate change

# 减少排放 提高绩效

## Lowering emissions and raising performance

- 增效节能是ABB市场发展的驱动因素之一。ABB大部分销售收入来自增效节能产品 Energy efficiency is a market driver for ABB. A significant proportion of revenues comes from sales of energy efficiency products
- ABB中国领先于中国的增效节能平均水平
  ABB stays ahead of China's energy efficiency target in China
- ABB电机和变频器的节能减排效果显著
  ABB products such as motors and variable-speed drives lead to huge energy savings and lower emissions

增效节能已深深融入ABB企业文化之中,也是ABB制造流程和产品生产的核心要素。因此,ABB得以可持续的方式帮助客户提升用电效率和工业生产率。

万个家庭一年的耗电量。与此同时,节电也使二氧化碳排放量减少1.09亿吨,超过了芬兰一年的二氧化碳排放量。

很显然,增效节能有助于缓解对气候变化的不良影响。国际能源署近期发布的研究报告称,到2030年,增效节能技术预计将使二氧化碳排放量减少80%。

ABB已然认识到这一问题的重要性:鉴于增效节能产品已成为公司销售收入的主要来源,公司面向2011年的发展战略明确将环境因素视为市场增长的主要动力之一。

举例来说,ABB生产的电机和变频器可大幅降低能耗、减少二氧化碳排放。全球安装的ABB低压变频器每年可节电约1.3亿兆瓦时,相当于发达国家3200

另外,广泛使用可再生能源也是减少二氧化碳排放的一条重要途径。例如,风力发电厂通常建在距电网和消费者较远的海上。但是采用ABB高压直流输电技术连接海上风力发电机和大陆电网,可向社会提供可再生能源。此举具有非常显著的社会效益,因此成为ABB发展的一个重要机遇。

此外,因为在制造过程中减少了材料浪费,ABB工业机器人同样具有节能减排的效果。

ABB还完成了两年内每个生产单位能耗降低5%的目标。在中国,ABB人均耗电量下降了25%。



先进的控制系统800xA可以帮助客户实现增效节能的目的 System 800xA, an advanced control system, can help customers achieve energy efficiency

Energy efficiency is part of ABB's DNA. It's a core element of ABB manufacturing processes and the products that are sold to customers. In this way ABB helps customers to use electrical power effectively and to increase industrial productivity in a sustainable way.

The link between energy efficiency and mitigating climate change is clear. According to a recent study by the International Energy Agency, 80% of projected CO<sub>2</sub> emission reductions by 2030 will be delivered through energy efficiency.

ABB recognizes the issue's importance: A significant proportion of ABB's revenues comes from products that increase customers' energy efficiency. And ABB's strategy through to 2011 identifies environmental concerns as a key driver of market growth.

As an example, ABB's motors and variable-speed drives already contribute to large energy savings and CO<sub>2</sub> emission reductions. The global installed base of ABB low-voltage drives alone saves about 130 million megawatt-hours of electricity a year,

equivalent to the annual consumption of about 32 million households in developed countries. This saving avoided CO<sub>2</sub> emissions of about 109 million tons - that's more than the yearly emissions of Finland.

Another important means of reducing CO<sub>2</sub> emissions is through a wider use of renewable energy. Wind power farms, for example, tend to be offshore, a long way from the grid and consumers. But ABB's high-voltage direct current Light technology brings that renewable power "to market" by linking offshore wind turbines to mainland grids. This represents a key opportunity for ABB with clear societal benefits.

ABB's industrial robots also save energy and the environment by reducing the amount of material that is spoiled in the manufacturing process.

Within ABB, the company met its target of reducing the use of energy per manufactured unit by 5% over two years. In China, electricity use per employee decreased by 25%.

# 善用风能 Using wind power effectively

以专业能力和专业技术服务于风力发电客户 Competence and expertise for wind power customers

如何有效地将可再生能源输往电网将是未来电力领域的重大挑战之一。作为全球风力发电行业中电气元件、系统与服务的最大供应商,ABB积累的丰富经验可以帮助客户从容应对这一挑战。

在中国,ABB积极参与了多个大型风电建设项目,其中包括中国最大的风电场——江苏如东风电项目以及内蒙古辉腾锡勒风电场。ABB为江苏如东风电场提供了紧凑型箱式变电站,其中包括升压变压器和35kV环网柜以及相关配套设备,帮助将产生的电力传输到当地的电网中。

中国风能资源非常丰富,约占全球风能储备的9.2%,为风电行业的发展提供了巨大的潜力。全球风能理事会(GWEC)的数据显示,中国2007年风电装机容量新增了3449兆瓦,排名世界第三位。到2020年,中国有望实现8000万到1亿千瓦风电累计装机容量,并在未来几年内保持高速发展。

在所有新能源中,风能具有最好的发电潜力。一台功率 1000kW的风力发电机组,每年可比同等能力的热能发电机组少排放2000吨的二氧化碳、10吨的二氧化硫和6吨的二氧化氮。

One of the key power challenges is how to transport renewable sources of energy, often from remote areas, to the grid efficiently and in a cost-effective way. ABB's technology and products enable this to take place in an environmentally friendly way.

In China, ABB has actively participated in a number of large-scale wind power projects, including China's largest wind power farm -- Jiangsu Rudong wind farm, and the Huitengshile wind farm in Inner Mongolia, etc. ABB provided Rudong wind farm with compact substation, including distribution transformers and a ring main unit, so as to integrate the green energy into local transmission network.

China enjoys rich wind power resources, accounting for 9.2% the world wind energy reserve. Statistics from the Global Wind Energy Council show that China's newly installed capacity of wind power increased 3449 MW in 2007, ranking the third in the world wind power market. By 2020, it is expected that China's accumulated wind power capacity will reach 80 million to 100 million kW, and keep growing at a high speed in the next few years.

Among all the new energies, wind power has the greatest power generating potential. A wind turbine with capacity of 1000 kW can save 2,000 tons of CO<sub>2</sub>, 10 tons of SO<sub>2</sub> and 6 tons of NO<sub>2</sub> emissions annually.



# 环境管理 Managing environmental impact

# 不断寻求改善 Seeking continuous improvement

- 80%以上的ABB在华企业采用ISO 14001标准管理,因此减少使用了有害物质、能源及其他资源 More than 80% of ABB's companies in China are managed in accordance with ISO 14001, resulting in less use of hazardous materials, energy and other resources
- ABB在华企业严格遵守环境、质量及健康和安全国际标准
  ABB's local companies have integrated environmental, quality, health and safety management systems in China
- 为持续提高绩效,ABB定期设置新的环境指标
  ABB regularly sets new environmental objectives as part of efforts to improve performance

使用能源和材料将导致污染和自然资源的耗竭,加之废气废物的产生,因此所有工业活动都会对环境造成不同程度的不良影响。多年来,ABB一直寻求各种改进方法,不仅改善自身工厂和办公室的环境质量,同时降低其产品对环境的不良影响。

目前,ABB正努力减少材料和能源消耗量,优化运输方式并不断尝试设计可回收的产品。

为了持续改善环境,ABB要求所有制造工厂严格遵守ISO 14001和OHSAS 18001标准,并将这些标准和质量认证融入到日常业务活动中去。厦门ABB开关有限公司则是中国第一家获得ISO 14001证书的企业,也是中国首家通过清洁生产的企业。

但是,仅靠环境管理系统还不够。为了提高这一体系的效率,ABB专门开发了基于企业内网的工具和流程。例如,根据淘汰物质准则,公司开列了禁止、限制使用的物质名单。

提高环境绩效始于新产品和新流程的设计阶段。ABB的设计师可利用公司提供的工具和培训,对新产品进行生命周期的环境评估,以了解其在整个周期内对环境的影响。设计师会根据评估结果找到需要改进的地方,如产品选材、增效节能以及回收再利用。

为了持续提高企业的环境管理水平,ABB按照ISO 14001标准定期制定集团环境目标,以解决企业在运营中可能出现的重大环境问题。集团将持续监督环境目标的完成情况,并且每年都会重新修订目标。

得益于跨国集团的规模经济优势,ABB遍布世界48 个国家和地区的大约350家公司能够共享最佳实践。 例如,公司可以将某一处开发的水基漆系统应用到 其他地方,以此减少有机溶剂中有害气体的排放。

总而言之,通过共享最佳实践,各公司能够减少废 气废物的排放、大幅缩减成本并创造更安全的工作 环境,从而实现清洁生产。



ABB在重庆建成全球最大变压器绝缘件制造中心 ABB's largest insulation kit center for transformers set up in Chongging

All industrial activities have varying degrees of environmental impact caused by emissions, waste, and the use of energy and materials that result in pollution and depletion of natural resources. ABB has been working for many years to reduce its impacts, both within its own plants and offices, and those caused by its products.

As part of these efforts, ABB now uses less material and energy, streamlines its means of transportation and is making increased efforts to design products that can be recycled.

To ensure continual improvement, ABB requires all manufacturing facilities to comply with the requirements of ISO 14001 and OHSAS 18001 standards, and has integrated these standards, as well as those covering quality, into everyday business activities. ABB Xiamen Switchgear Co., Ltd. is the first one to get ISO 14001 certificate and to pass the examination of clean production in China.

But management systems alone are not enough. ABB has therefore developed intranet-based tools and procedures to make these systems more effective. One example is the company's list of prohibited and restricted substances, supported with guidelines on the phasing out of these substances.

Improving performance starts in the design phase of new products and processes. Tools and training are provided for design engineers to carry out environmental Life Cycle Assessments (LCAs) to assess a product's environmental impact throughout its life cycle. An LCA indicates where improvements can be made, for example in areas relating to material selection, energy efficiency and recycling.

To foster continual improvement as required by ISO 14001, ABB regularly sets Group-wide environmental objectives which address significant environmental aspects of its operations. Results are monitored continually and the objectives redefined annually.

A multinational company such as ABB benefits from the economy of scale, which permits the sharing of best practices between approximately 350 sites in 48 countries. For example, water-based painting systems have been developed at one site and then transferred to others to reduce emissions of organic solvents.

Overall, transfers of best practices have resulted in lower emissions, less waste, significant cost savings and safer working environments, leading to cleaner production processes.

## 致力于节能减排

# Raising efficiency, cutting emissions

要求所有在中国运作两年以上的公司都要通过外部权威机构的质量、环境和健康认证 Requiring all companies in China to establish environmental management systems

通过大力改善工业流程以及不断的设备改进,ABB在华企业 实现了节能减排。

工业流程已经取得了显著进展,如先进的镀钢工艺和强调水的循环再利用。办公室方面,则通过更好的保温措施和更多使用自然采光实现节能。

不管是新建新工厂,还是扩建现有厂房,增效节能都是整个项目的重要组成。与此同时,ABB通过采取环境友好型设计,例如使用i-Bus系统,以及安装传动系统等高效设备,帮助在华企业实现节能减排的目的。

从2002年到2007年,ABB在华22家企业每百万人民币销售收入的耗电量下降了48%,人均用水量则减少了36%。

一个特别需要指出的例子就是厦门ABB低压电器设备有限公司于2007年初顺利通过了由厦门市环境保护局、经济发展局及循环经济办公室联合组织的清洁生产审核验收。公司将综合性预防的环境战略持续应用于生产过程、产品和服务中,以提高效率,降低对人类和环境的危害。由此,公司每年可取得199.1万元人民币的经济效益。公司万元产值每年用电量、用纸量和用水量分别下降了7.08%、7.6%和10.6%。

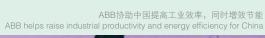
ABB companies in China have improved their energy efficiency and cut their emissions in a wide variety of ways - through improved industrial processes and improvements to plants.

There have been significant improvements to industrial processes, such as steel plating, and greater emphasis on water reusing. Energy has been saved in offices through better insulation, greater use of natural lighting.

In ABB China, energy efficiency is an integrated part in designing any new factory construction or existing plants expansion.

From 2002 to 2007, ABB's power consumption per unit of Million RMB dropped 48%, and water consumption per capita fell 36% in 22 local companies.

One good example is found in Xiamen, where the ABB Xiamen LV Equipment Co., Ltd. successfully passed the examination for cleaner production. The company adopted a preventive environmental strategy applied to processes, products and services to increase eco-efficiency and reduce the risks to humans and the environment. These improvements can generate 199.1 million RMB of return each year, and reduce consumption of power, paper and water respectively by 7.08%, 7.6% and 10.6% per 10,000 yuan of output value each year.





# 产品创新 Product innovation

# 可持续发展是成功的关键 Sustainability is key to success

- ABB分布于全球的6000名研发人员致力于研发创新和可持续发展技术 6,000 ABB researchers and developers work worldwide to produce innovative and sustainable technology
- 可持续发展指导原则(包括环保问题及健康与安全要求)融入所有新产品的开发过程之中 Sustainability guidelines, covering environmental issues and health and safety, are built into the development of all new products
- 频率转换、多变量流程控制和特高压输电技术方面的新进展有助于节省能源和提高绩效
  New advances in frequency conversion, multivariable process control and ultrahigh-voltage transmission technologies save energy and boost performance

通过前沿的产品创新了解和满足客户需求,同时降低对环境的不良影响,是ABB的核心竞争优势。

续发展目标。公司还会对核心产品进行专门的生命 周期评估,然后拟订和发布产品环保性能声明。

ABB的研发部门遍布全球,七个研究中心以及各个业务部门汇集了约6000名不同领域的专业技术人才。公司2007年的研发投入为12亿美元,比去年增长了近9%。

在开发新产品的各个阶段,ABB的设计人员均严格 遵守可持续发展的指导原则开展工作。

这些指导原则包括标准化的产品生命周期评估程序、 环保设计手册、用于确认潜在风险的健康与安全清 单、禁止和限制使用物质清单,从而确保ABB的可 持续发展目标植根于产品研发流程。

另外,ABB设定了强制性的七步审批流程,要求设计人员提交针对每个开发步骤的评估文件,以确保新产品具备卓越性能,并在有效期内始终符合可持

ABB研究中心内的可持续发展支持小组主要负责开发和维护可持续发展工具,同时开展培训以确保研发人员充分理解可持续发展的要求,自觉将其融入本职工作之中,从而为ABB创造了一个更加清洁的生产流程。这将导致更低的排放、更少的废物、更为安全的工作环境,同时还能大幅降低成本,优化运输。

可持续产品的开发成就了ABB业务上的成功。频率转换、多变量流程控制以及特高压输电技术方面的新进展有助于节省能源和提高绩效,同时降低了对环境的不利影响。

可以说,开发可持续产品是ABB巩固市场领先地位, 不断取得成功的关键。



致力于产品创新的ABB研发人员正在努力工作 ABB's R&D staffs carefully engage in research for product innovation

Understanding and meeting customer needs with cutting-edge product innovation while lowering environmental impact is a key strength of the company.

ABB's research and development departments worldwide employ some 6,000 highly skilled people in different businesses and at seven corporate research centers. Spending on research and development in 2007 was 1.2 billion USD, up nearly 9% compared to the previous year.

When developing new products, the ABB designer follows strict sustainability guidelines applicable to each phase of the process.

These guidelines include, for example, standardized Life Cycle Assessment procedures, a handbook for environmentally aware design, a health and safety checklist to identify potential risks; and a list of prohibited and restricted substances to ensure the company's sustainability objectives are also embedded into product development.

Furthermore, a mandatory seven-step approvals process requires documented assessment at each step of the development to ensure the new product's sustainability objectives and performance throughout its working life are met. For core products, ABB produces and publishes environmental product declarations based on formal Life Cycle Assessments.

A sustainability support group within ABB's corporate research organization develops and maintains sustainability tools and conducts training to ensure sustainability requirements are fully understood and integrated into business activities. This has resulted in cleaner production processes with lower emissions, less waste, streamlined transportation, safer working environments and significant cost savings.

Sustainable product development translates into business success. New advances in frequency conversion, multivariable process control and ultra high-voltage transmission technologies save energy and improve customers' performance while lowering environmental impact.

The development of such products is key to ABB's efforts to build on its market leadership positions and to ensure its success in the future.

## 提高电机能效

电机消耗的能源占世界能源消耗总量的65%。大多数电机存在体形庞大、能耗高和污染严重等问题。

为了防止电机因峰值电压和意外过载而受损,工业用户一般 会购买超过其实际使用需求的电机。

ABB的低压配电和电机控制中心可支持客户安装体积适中、增效节能且温室气体排放较少的电机,是工业用户的理想选择。

在中国,如果用高效电机替换所有的低效电机,每年将能节约近190亿度电,可以满足290万户家庭的一年的用电需求。

## Cutting motors - and energy use - down to size

Motors account for 65% the world's energy consumption. But most motors are oversized, and consume far more energy and emit more pollutants than necessary.

Industrial users tend to buy a motor that far exceeds their needs to give the motor a protective buffer from power spikes and uncontrolled overload.

With ABB's low-voltage power distribution and motor control centers, customers can install smaller, energy-efficient motors that are correctly dimensioned, consume less energy and reduce greenhouse gas emissions.

In China, the annual energy saving potential from replacing all inefficient electrical motors in Chinese industry equals to 19 billion kWh, which is enough to satisfy annual power consumption of 2.9 million households.



ABB特高压直流技术(UHVDC)不仅减少远距离传输过程的电力损耗,而且具有卓越的环保功能 ABB's UHVDC technology can reduce electricity losses in transmission over long distance, but also with strong environmental benefits.

### 大容量电力传输 低线路损耗

ABB开发的特高压直流输电技术是一项大容量、长距离输电技术,具有卓越的环保性能。

2007年12月,ABB在中国赢得为全球最长输电线路提供领先的高压直流技术的订单。该线路长达约2000公里,从中国西部地区一直延伸到上海,线路的额定功率将达创纪录的6400兆瓦,足以满足中国3100万人口的用电需求。

同低压交流输电技术相比,高压直流技术不仅可以提高输电效率,减少远距离传输过程中的电力损耗,同时占地面积更少。

这项技术的线路传输损耗少于7%,远低于传统的500千伏高压直流输电技术的电力损耗,每年节省下的电力可以满足90多万人口的用力需求。

## Transporting bulk power with low losses

ABB has developed equipment for the ultrahigh-voltage transmission of bulk electrical power - a technology that has strong environmental benefits.

In December 2007, ABB won orders in China to provide 800-kilovolt ultrahigh-voltage direct current technology (UHVDC) for the world's longest power transmission link some 2,000 kilometers from western China to Shanghai. The link will have a record capacity of 6,400 megawatts, enough to meet the electricity needs of about 31 million people.

The technology improves efficiency, reduces electricity losses in transmission over long distances, and uses less land compared to lower-voltage alternatives.

Transmission losses will be less than 7%, significantly lower than the losses from conventional 500-kilovolt high-voltage direct current (HVDC) transmission schemes. The savings from using UHVDC compared with HVDC are equivalent to the annual power consumption of more than 900,000 people in China.

## 职业健康与安全

## Occupational health and safety

## 应对严峻挑战

# Working to meet tough challenges

- 提高职业健康与安全是集团范围内优先考虑的大事 Improving occupational health and safety performance is a Group-wide priority
- 不断提升高风险区域员工和承包商的安全
  Security has been stepped up to protect employees and contractors in risk areas
- 新员工加入ABB中国七天内都将接受安全培训
  New employees will receive safety training after they join in ABB China in seven days

职业健康与安全依然是ABB所面临的挑战。对此, ABB也一直积极探索行之有效的解决方案。

确保良好的职业健康与安全是ABB优先考虑的大事。 ABB保障员工或分包商的基本权利,使其在结束了一天的工作后安全回家。ABB中国通过开展行为规范培训,以及进一步开发通用系统和标准等举措,坚持履行安全职责。

目前,公司正着力应对三个薄弱环节:确保员工和分包商在高空作业和高压电气作业时遵循操作规范,同时确保他们驾驶和乘车时遵照道路交通安全指南。

ABB一直竭力提高项目的安全性。项目和现场经理不仅接受相关培训,同时他们还可以在线接受涉及重大风险的职业健康与安全培训课程(包括英语、中文和其他语种的不同版本)。

另外,2007年,公司还加强了针对员工和分包商安全保护措施。在进行项目投标时,公司已将系统化安全风险评估机制纳入了业务部门的风险评估流程。

Health, safety and security remain a challenge for ABB, and ABB is working hard to find the right answers.

Ensuring good occupational health and safety performance - the fundamental right of an employee or subcontractor to return home unharmed after a day's work - is a core priority for ABB. This continues to be supported by training on behavior and the further development of systems and standards across all the local companies.

The company is focusing on three main areas of weakness: Ensuring employees and subcontractors follow established rules when working at height and on live electrical equipment, and when they drive or are driven as part of their work.

ABB continues to work hard to improve project safety in China. Project and site manager not only receive training, they also have access to online occupational health and safety training courses on key risks, which are now available in English, Chinese and many other languages.

The company also strengthened its security measures for employees and subcontractors in 2007. Systematic assessment of security risks now forms an integral part of the divisions' risk review process when tendering for projects.



确保良好的职业健康和安全是ABB优先考虑的大事 Ensuring good occupational health and safety performance is a core priority for ABB

## 保护员工 Protecting employees

杜绝人身伤害是ABB的最终目标。ABB不仅开发安全标准高的产品,使员工和客户双方获益,同时采取各种措施保护员工安全。

ABB厦门开关有限公司就通过硬件和软件两个方面来保护员工。硬件方面,公司创造性地改进工艺,如通过安装机械手改进套筒装配,不仅提高了工作效率,而且降低了急性扭伤和套筒坠落的风险。

软件方面,公司不仅定期到员工的作业场所进行安全行为观察, 而且不断寻找舒适安全的劳动防护用品,如特意采购金属防 割手套避免发生割伤事故。

"Stop hurting people" is ABB's ultimate goal. ABB not only develops products to improve safety, benefiting its own employees and customers, but also adopts many measures, like Safety Observation Tours to protect employees.

ABB Xiamen Switchgear Co., Ltd. is a good example. The company innovatively modified techniques, such as using mechanical hands to implement spout assemble, which not only improved work efficiency but also lowered the risks of acute sprain and falling hazards.

The company also purchased such labor protective products as cut-resistant gloves to avoid cutting incidents.

## 应对禽流感 Preventing avian flu

ABB中国通过海报、内网、员工杂志、公告牌和问卷调查等 多种形式展开了密集的宣传活动提高员工预防禽流感的意识, 同时通过培训告知员工如何预防禽流感。

为了切实做好应对禽流感爆发的准备工作与预防措施,最大程度地减少在发生禽流感时可能对公司员工健康安全和公司业务发展造成的危害,ABB在华企业都制定了禽流感应急预案。为此,ABB中国总部已经储备了24000个口罩以备不时之需。

ABB has implemented intensive communications, including posters, Intranet, internal magazine, notice board, questionnaires, etc, and various trainings to raise awareness of employees in China on how to prevent avian flu.

Meanwhile, ABB also formulated a detailed contingency plan to manage the impact of influenza pandemic (i.e. once avian flu becomes contagious among humans) on employees and protect company from possible business interruption. For preparation of avian flu breakout, ABB China has stockpiled 24,000 face masks.

# 企业责任 Corporate responsibility

# 选择更高标准 Seeking higher standards

- ABB承诺继续保持高度的社会、环境、道德和治理标准
  ABB is committed to maintaining high social, environmental, ethical and governance standards
- 优秀的企业公民需要所有利益相关方的参与,以实现最佳实践,同时为利益相关方创造价值 Good corporate citizenship requires the engagement of stakeholders to help achieve best practice and benefits to all stakeholders
- ABB力争调动各方力量,不断提升从气候变化到人权等各个领域的标准 ABB seeks to strengthen multilateral efforts to raise standards on a range of issues from climate change to human rights

企业责任体现了ABB对利益相关方的价值观与行为模式,表现于ABB内外的各项运作之中。ABB目前的工作重心是大力提升公司的各项标准,积极参与国际项目。

2007年,公司批准通过ABB人权政策和相关公开声明。结合现有政策,ABB将在社会、环境、健康与安全以及商业道德方面取得更大的进展。

此外,ABB还在全球开展培训,帮助他们深刻认识公司遍布世界各地的业务运营对人权的潜在影响。目前,这项极具挑战性的工作正在进行中。

在气候变化方面,增效节能产品、环保生产方式以及有利于直接延缓全球变暖进程的产品,都表明ABB兑现了改善环境的承诺。

ABB践行社会承诺的行为表现在很多方面:ABB在华研发机构通过捐赠设备和设立项目资金与中国多所知名大学展开合作,如与同济大学成立ABB电力技术教学中心;ABB管理层也积极投身中国一些大学的管理建设,ABB中国首席技术官柯廷安博士目前就是西交利物浦大学工业咨询委员会委员,为该校的发展建设和学生综合素质的培养提供建议和咨询;ABB还积极参与中国可持续发展工商理事会、中国红十字总会、中国扶贫基金会等组织的各种社会公益活动。

ABB追求成为"优秀的企业公民"。哪怕深处困境, ABB将始终保持警醒的头脑和高度的敏感,通过不 懈努力,持续提高公司的各项标准。目前ABB正在 全力推进这项工作。



ABB厦门员工参加"生命之水"志愿者行动铲除外来植物"马缨丹" ABB's volunteers in Xiamen clean up common catana when participating in the "Water of life" campaign

Corporate responsibility underpins the company's values and behavior to stakeholders, and is expressed in a multitude of ways, both internally and externally. For ABB, the desire to raise company standards and contribute to international initiatives is core.

Within the company, for example, a human rights policy and public statement were approved in 2007, complementing existing policies for raising social, environmental, health and safety, and business ethics performance.

Training sessions have begun to raise awareness of the potential human rights impacts of business operations in different parts of the world. This work is challenging and ongoing.

Turning to climate change, ABB's energy-efficient products, the environmentally friendly way they are manufactured, as well as products for directly mitigating global warming, demonstrate the company's commitment to environmental improvement.

Social commitments find expression in a variety of ways: ABB China R&D strengthens cooperation with China's universities by donating equipment to many universities through project collaboration, such as ABB's Power Technology Education Center in TongJi University; ABB people also joined the advisory group of some universities in China to offer constructive suggestions, like Dr. Kurt Kaltenegger, CTO of ABB China, who is a member of the industrial advisory board of Suzhou-based Xi'an Jiaotong Liverpool University; ABB continues to work actively on projects in a number of organizations, such as China Business Council for Sustainable Development, China Red Cross Society, and China Foundation for Poverty Alleviation, etc.

ABB seeks to be a "good corporate citizen." Constant effort, vigilance and high levels of awareness are needed to raise standards which are consistent everywhere, even in difficult environments. This is work in progress.

## 维护人权

ABB于2007年批准了集团人权政策,并补充制定了有关环境、 社会和商业道德等方面的重要政策。

ABB针对员工、承包商和供应商、当地社区和社会等利益相关方分别制定了不同的人权政策,充分彰显了ABB开展业务时履行人权政策的承诺。

与此同时,ABB还将人权标准纳入了面向拟建项目的风险评估流程之中。

这些举措有利于利益相关方加深对于身处两难困境、当前企业 责任,以及在敏感国家和地区或管理相对薄弱区域开展业务时 可能面临的风险和机遇的认识。

在中国,ABB积极参与中国可持续发展工商理事会、中国红十字总会、中国外商投资企业协会投资性公司工作委员会、中国扶贫基金会等组织的各种社会公益活动,包括支持教育、扶贫赈灾、环境保护等,坚定履行公司良好企业公民的承诺。

## **Commitment to human rights**

ABB approved a Group human rights policy in 2007, complementing other key guidelines such as its environmental, social and ethics policies.

The human rights policy, which takes a stakeholder approach with categories on employees, contractors and suppliers, local communities and society, underlines ABB's commitment to a human rights-aware approach to business.

Further human rights criteria were also embedded in the risk review process for proposed business projects.

These measures have helped to raise awareness of the dilemmas and responsibilities facing the company - and the risks and opportunities in operations in sensitive countries or areas of weak governance.

In China, ABB works with China Business Council for Sustainable Development, Executive Committee of Foreign Investment Company, China Red Cross Society, and China Foundation for Poverty Alleviation, etc, to help support education, poverty alleviation, disaster relief, environmental protection.



ABB新长城助学项目一资助家境贫穷的中国大学生完成学业 ABB new great wall program—helping university students from poor families in China

## 优秀学子资助计划

长期以来,ABB为很多国家家境贫穷的工程学生提供资助,帮 助他们完成学业。2007年,公司创建了一个面向全世界工程 学生的教育基金。

ABB杜曼工程教育基金是ABB为表彰前任董事长兼首席执行官 杜曼所取得的杰出成就而创立的。从2008年开始,中国、巴西、 埃及、印度和波兰等国的天才学生将可以申请这一奖学金。

ABB还将邀请这些学生参加公司主办的本国和国际活动,并指 定当地的ABB导师为其提供指导。另外,这些学生还有机会在 假期前往ABB参与带薪实习。

另外,ABB中国研究中心还向中国大学毕业生颁发奖学金, 资助他们前往ABB研发中心继续从事研究工作,如授予清华 大学的赵奔博士制造技术奖学金,并前往ABB波兰研发中心 从事研究工作两年。

事实上, ABB研究中心已经与清华大学、同济大学、西安交通 大学、上海交通大学、重庆大学、哈尔滨工业大学、华北电力大 学、天津大学等建立了合作关系。这些合作项目不仅在基础研 究领域为ABB提供了有力支持,同时也进一步扩大了ABB的社 会影响力。

## Supporting talented students

ABB provides financial assistance to engineering students in a number of countries to help them through their studies. In 2007, the company launched a corporate-level foundation for engineering students in different parts of the world.

The ABB Jürgen Dormann Foundation for Engineering Education, set up by ABB to honor the achievements of the former chairman and CEO Jürgen Dormann, is proposing scholarships, starting in 2008 in China, Brazil, Egypt, India and Poland, etc. Meanwhile, successful students will be invited to attend national and international events, hosted by ABB, and will be allocated a local ABB mentor. They will also have the opportunity for paid internships during vacations.

In addition, ABB also awarded scholarships to graduates from Chinese universities, carrying out further study in ABB corporate research center overseas.

ABB has set up several cooperation projects with Chinese Universities, including Tsinghua University, Shanghai Jiaotong University, etc. In addition to providing excellent basic research support to ABB, these projects also enhance ABB's corporate image in China.

# 企业责任

# Corporate responsibility

#### 培训和女性在管理层所占比重

所有国家和地区都要报告每位员工每年接受的正规课堂培训 平均小时数(不包括在职培训)。

所有国家和地区还要报告女性在高级执行管理层、高级管理 层和中级管理层中所占的比重。

ABB每年都会公告不同国家的报告情况。下表数据反映了这些国家上述两项报告的综合结果。

	人均培训小时数 Training hours per employee	女性在管理层所占比重 Percentage of women in management
中国(China)	48	20
丹麦(Denmark)	23	4
爱沙尼亚(Estonia)	32	33
法国(France)	16	14
德国(Germany)	16	3
匈牙利(Hungary)	45	10
立陶宛 (Lithuania)	24	33
俄罗斯(Russia)	23	10
瑞典(Sweden)	20	8
瑞士(Switzerland)	18	7
泰国(Thailand)	40	3

#### 员工接受绩效考核

2005年,ABB开始在所有国家推行集团员工评估系统,并利用该系统对人员进行年度考核。到2007年,ABB分布于30个国家和地区(总共48个国家和地区)的95%的员工都参加了这项绩效考核。

#### 违反非歧视性原则

凡参与ABB可持续管理项目的所有国家必须提交关于歧视事件的报告。2007年没有任何有关歧视事件的报告。

#### 安保人员人权培训

2007年,ABB一直在对负责安保的员工和承包商进行培训。 2008年,ABB计划根据《安保与人权自愿原则》开展力度更 大、更有深度的培训。

#### 业务单元腐败风险分析

ABB的内部审计人员每年都要进行一次涵盖所有业务单元的风险评估,评估结果将作为制定来年审计计划的依据。反欺诈风险评估是风险评估中的一项重要内容。此外,任何被纳入风险评估流程的重大项目都要接受腐败风险评估。

#### 员工接受反腐败程序培训

ABB于2006年发起了面向所有员工的反腐败意识和培训项目。 到2007年底,ABB集团内部已全面实施了新的《行为准则》, 所有员工都完成了相关培训。



张雁冰,12年前加入ABB,目前已经成长为ABB(中国)有限公司区域供热业务经理 Yanbing Zhang, joining ABB 12 years ago, is a manager responsible for the district heating business in ABB China

#### Training and women in management positions

All countries reported figures for the average hours of organized classroom training per employee per year, which excludes on-the-job training.

All countries and regions also reported figures for the percentage of women in senior executive, senior and middle management ranks.

ABB selects different countries to report on each year. Figures for these countries for both indicators are given in the table (P24).

#### Employees receiving performance reviews

In 2005, ABB rolled out to all countries a Group-wide employee appraisal system to be carried out annually for all skilled staff. By 2007, 30 countries out of 48 had achieved 95% coverage of all employees in this category.

#### Non-discrimination violations

All countries in ABB's sustainability management program are asked to report any incidents of discrimination. No incidents were reported in 2007.

### Training of security personnel in human rights

Training has been ongoing for ABB security personnel and security contractors in 2007. Greater in-depth training, based on the Voluntary Principles for Security and Human Rights, is planned for 2008.

## Business units analyzed for corruption risks

ABB's internal auditors carry out an annual risk assessment encompassing all business units as the basis for their audit planning for the following year. Anti-fraud risk assessment is part of this. In addition, every significant project is included in a risk review process, which also covers corruption considerations.

#### Employees trained in anti-corruption procedures

In 2006, ABB launched an anti-corruption awareness and training program encompassing all employees. By the end of 2007, the new Code of Conduct had been fully rolled out and all employees had completed the training.

## 供应链管理

# Sustainability in our supply chain

# 提高意识和绩效

## Raising awareness and performance

- ABB优先考虑已经实施了环境、社会、健康与安全国际管理系统的供应商 ABB gives priority to suppliers who have implemented international environmental, social and health and safety management systems
- ABB在2007年继续对供应商进行可持续发展培训,并在中国对供应商开展了近150次可持续发展方面的绩效审计

Sustainability training of suppliers continued in 2007, and about 150 audits of their sustainability performance were carried out in China

■ 2007年,ABB中国对100多家供应商进行了可持续发展方面的培训 ABB carried out sustainability training for over 100 suppliers in China in 2007

供应商可持续发展方面的绩效对于ABB的成功至关重要,这也决定着他们能否获得与ABB合作运营的资格。2007年,ABB通过周密管理合作项目、开展培训和审计等方式,继续帮助供应商提高绩效。ABB中国2007年对供应商开展了近150次审计。

ABB将根据材料、备件和服务方面的战略供应商对 环境和社会的潜在影响程度进行评级,并且在与这 些供应商开展业务合作之前对其进行相应的审计。 通过该流程,部分潜在供应商就意味着丧失了供货 资格,尽管他们在价格等方面具备相当的竞争优势。

ABB通常不会亲自对供应链中的分供商进行深入审计。但是,ABB会敦促直接供应商对他们的供应商进行可持续发展方面的审计,以确保其环境和社会绩效符合ABB可持续发展政策的要求。

对于实施了同ABB相同管理体系的供应商而言, ABB给予优先考虑。例如环境管理方面的ISO 14001 体系、社会问题管理方面的AS 8000体系和健康与安 全风险管理方面的OHSAS 18001体系。

ABB一直与各级供应商开展多种形式的合作。ABB会定期与供应商召开会议,使他们深入了解公司的政策和要求;此外,ABB还主动参与其他组织发起的活动,寻求解决运输问题的最佳方法。

ABB正持续改善供应链的各个环节,并继续加强与 供应商的合作,以提升供应商在可持续发展方面的 意识和绩效。



ABB定期与供应商进行沟通,使他们深入了解公司的政策和要求 ABB regularly communicates with suppliers to raise their awareness of the company's policies and requirements

The sustainability performance of suppliers is a key factor in ABB's own success and underpins its license to operate. In 2007, ABB continued its special focus to lift suppliers' performance through carefully managed cooperation programs, training and auditing.

All new strategic suppliers of materials, components and services are graded according to the severity of their potential environmental and social impacts, and then subjected to appropriate sustainability audits before they can commence business with ABB. This process has resulted in the disqualification of some potential suppliers, in spite of business advantages such as competitive prices.

ABB does not normally perform its own audits of sub-suppliers further up the supply chain. It does, however, encourage direct suppliers to perform sustainability audits of their suppliers in order to ensure that their environmental and

social performance is compatible with ABB's sustainability policies.

Priority is given to suppliers who have implemented the same formal management systems as ABB, such as ISO 14001 for environmental management, AS 8000 for social issues and OHSAS 18001 for managing health and safety risks.

Working with the supply chain takes many forms. ABB holds regular meetings with suppliers to raise awareness of the company's policies and requirements, and is also involved in initiatives with other organizations to seek common and better approaches on issues such as transportation.

There are always potential improvements at different levels of the supply chain. ABB is working hard with suppliers to raise awareness and performance where it can do so effectively.

# 严格培训 Rigorous training

不管是小项目还是奥运大工程,我们优先考虑可持续发展业绩显著的供应商 No matter what project is, priority is given to reliable suppliers who has been dedicating to sustainability performance

2007年,ABB中国对100多家供应商进行了可持续发展方面的培训,要求他们严格遵守环境法规和ABB开列的限制和禁止物质清单。

ABB对供应商的要求如下:

- 向空气和土壤排放的废气废物水平低于中国的标准,排放量 较大的公司每六个月要向ABB提交环境监控结果。
- ■立即遵照新法律法规行事。
- ■对现有流程和新流程进行环境影响评估。
- 采取预防措施,避免土壤和地下水受到污染。

为确保所有供应商都达到要求,ABB厦门开关有限公司对供应商进行了20多次环境、健康与安全方面的审计。审计结果表明,大部分供应商都达到了公司的预期要求。到2007年底,19家主要供应商通过了ISO 14001认证。

ABB carried out sustainability training for over 100 suppliers in China in 2007, focusing on the need for strict observation of environmental regulations and ABB's list of restricted and prohibited substances.

The company requires suppliers to ensure that

- air and ground emissions go beyond national legal requirements and that companies with significant emissions submit monitoring results to ABB every six months
- new laws and regulations are instantly complied with
- environmental impact assessments are performed for existing and new processes
- preventive actions are taken to avoid contamination of soil and groundwater

To ensure full compliance, ABB Xiamen Switchgear Co., Ltd. carried out more than 20 environmental and health and safety audits of suppliers. Most were in compliance. In addition, 19 key suppliers had been externally certified to ISO 14001 by the end of 2007.

ABB为保障北京奥运场馆的电力安全和节能环保提供了大量的技术和设备 ABB provides advanced technologies and equipment to enhance power reliability and energy efficiency for Beijing Olympic facilities



# 企业公民 Working in the community

# ABB带来大不同 Making a difference

- ABB致力于改善所处社区的生活质量,努力成为最佳雇主
  ABB seeks to help raise the quality of life in the communities where it operates and be an employer of choice
- ABB在华企业开展了一系列有益于个人和社区的项目活动 Facilities all over China run a wide variety of programs benefiting individuals and communities
- ABB在华员工志愿参与了众多社会活动和慈善筹款项目
  Employees volunteer to be part of social projects and fund-raising schemes in China

ABB业务遍布中国60多个城市。引以自豪的是, ABB将国际化经营理念融入到本土化运营之中。 作为一个值得信赖的合作伙伴和良好的企业公民, ABB成为所处社区的一分子,体现了公司"四海皆为 家"的经营理念。

ABB积极承担社会责任,致力于在中国成为一名优秀的企业公民。为此,我们在中国开展了一系列社会活动,涉及支持教育、环境保护、社会公益等。

ABB将人才视为公司最宝贵的财富之一,因此我们高度重视教育。我们在中国帮助和支持那些有才华却有困难的大学生们实现他们的理想;我们在重庆和厦门和当地技校合作设立"ABB教学班",联合培养青年技工人才;我们还在山西河曲县援建了南也爱心小学。

ABB致力于创造一个更加美好的世界,因此参与了各种环境保护活动。我们与主要客户之一的内蒙古电力公司在内蒙古鄂尔多斯市联合开展了沙地治理项目;我们捐资参与了三峡库区周边绿化带示范区的建设。

作为负责任的跨国企业,我们以可持续的方式向所在的社区贡献自己的力量,参与各种社会公益活动。 当中国面对大灾大难的时候,我们及时伸出援助之 手;不管是非典、海啸、雪灾,还是地震,ABB始 终心系灾区,捐钱捐物,同时派出技术人员到现场 提供一线服务;我们也十分关注弱势群体,我们在 上海捐资改善敬老院的生活设施。

另外,ABB在华员工甘当社会志愿者。他们在厦门参与了生命之水志愿者行动,与当地高校学生和市民一起携手清理厦门大学水库周边的外来物种——马缨丹;他们走入上海国际特奥会,向那些特殊运动员提供细心体贴的服务。



为保护首都环境和电力走廊, ABB携手内蒙古电力公司和鄂尔多斯电业局在毛乌素沙漠 参与沙地治理,关爱你我家园"的沙地治理项目,并已完成一期工程。 In order to protect Beijing and power line corridor, ABB, the IMPC and OPSB launch an anti-desertification campaign entitled Reforest the desert, improve our homeland" in Maowusu desert, and complete the first phase project.

ABB is present in over 60 localities in China, priding itself on a local approach in global operations. Being close to a local community, and being perceived as a worthy partner and good corporate citizen, are an essential part of being "at home" in areas where the company operates.

ABB strives to be a good corporate citizen in China through assuming social responsibility enthusiastically. Support takes a variety of forms, and ABB runs a wide variety of programs, including supporting education, environmental protection, and charity and common wealth.

As talents are one of ABB's greatest assets, ABB attaches much importance to education. ABB provided scholarship and other assistance to talented but needy university students in China to fulfill their dreams; ABB cooperated with vocational schools in Xiamen and Chongqing to set up "ABB Class" to develop young skilled worker; ABB also donated money to rebuild Nanye primary school in China's north province of Shanxi.

ABB also aims at building a better world by supporting various kinds of environmental protection campaigns. ABB joined hands with one of key customers - Inner Mongolia Power Company to fight against desertification.

As a responsible multinational, ABB has been dedicating to make contributions to the communities where it operates in a sustainable way. Facing disasters, ABB always timely offered various kinds of assistance. Meanwhile, ABB is highly concerned about disadvantaged people. ABB raised about 1 million RMB for a project to improve the housing of 1,000 elderly people in Shanghai.

In addition, ABB employees in China are proud of their ability to act as volunteers. ABB's environmental volunteers in Xiamen participated in the "Water of Life" campaign; ABB volunteers also took part in Shanghai Special Olympics to provide necessary support to the disabled sportspeople.

### 支持教育

ABB融入当地社区的方式之一就是支持当地教育,同时把教育和扶贫结合起来也一直是ABB努力的方向。

自2005年起,ABB每年向中国扶贫基金会捐助100万人民币,帮助贫困学子步入大学殿堂。截至目前,ABB捐款已经帮助了37所高校的860位电气工程类专业的贫困大学生。

为了培养青年技工人才,弥补人才市场的不足,ABB于2007年4月与重庆市机械高级技工学校,建立起首个"ABB教学班"。一年之后,ABB牵手厦门技师学院,成立了另一所"ABB教学班"。这种技工培养模式将技校教育和企业用人需求紧密结合在一起,通过联合教学,可以加快高技能人才的成长速度,有效缩短学校和用人单位的距离。另外,ABB还分别在这两所技校设立了助学金,帮助贫困学生完成学业。

ABB还高度关注贫困山区的小学建设。ABB在山西河曲县援建了南也爱心小学。公司还向该校捐赠了价值5万多元的10台笔记本电脑和1000多册图书。

## Supporting schools

One of the ways ABB supports communities where it operates is through helping to build up and maintain schools.

From 2005, ABB donated 1 million RMB annually to China Foundation for Poverty Alleviation to help poor students to finance their college education. Up to date, ABB's donation has financed 860 electrical engineering students from 37 universities in China.

In order to cultivate young technicians, and to integrate talents training with market demand, ABB has cooperated with Xiamen Technical School and Chongqing Machinery School of Advanced Skilled Workers respectively to set up "ABB Class".

Meanwhile, ABB paid much attention to the primary school education in China's poverty-stricken area. ABB supported to rebuild and upgrade the Nanye primary school in China's north province of Shanxi.



ABB(中国)有限公司董事长兼总裁柯睿思(中)与上海慈善基金会领导一起探望恩光敬老院老人 ABB China Chairman and President Brice Koch visits the elders in Enguang Senior Citizens' House with Shanghai Charity Fund representative

#### 心系弱势群体

从赞助特奥会到关心老年人生活,ABB始终心系弱势群体, 帮助他们创造一个更加美好的未来。

从2000年开始,ABB已累计捐款100多万欧元支持特奥会, 并派出员工志愿者为特奥代表团提供服务。2007年上海特奥 会举办期间,多名ABB中国的员工牺牲了"十一"长假,志愿为 来自全世界的7400多名特奥运动员、教练员提供力所能及的 服务。

ABB十分重视老龄化问题,公司在上海的五家本地企业的员 工和管理层热情响应了捐助敬老院的提议。ABB最终筹集100 万人民币在上海启动了一项关爱老年人的项目。该项目为期 三年,旨在帮助上海郊区非盈利性敬老院改善其配套设施, 将使1000多位老人受益。

"ABB女儿"则是另外一个例证。黄世林六个月大时,父母双亲 在与进屋作案的窃贼搏斗时不幸遇害。她的父亲生前是重庆 ABB变压器有限公司的工人。在ABB中国公司及全体员工和 亲人的关怀下,小世林正在健康幸福地成长。

## Helping disadvantaged people

ABB supports people with disabilities in a number of ways from promoting sports events to providing elder people with a better future.

ABB has contributed to the Special Olympics over one million Euros since 2000, and supported the Games with ABB volunteers. In 2007 Shanghai Special Olympics, a number of ABB China employees canceled their travel plan for the National Day holidays, fully prepared to serve over 7,400 international athletes and coaches.

ABB also raised 1 million RMB to launch a project caring about senior citizens in Shanghai. The project, which will last three years, aims at helping non-profit senior citizens' houses in Shanghai suburbs to improve facilities of the aged people, which would benefit over 1,000 aged people

"ABB daughter" is another example. Little Shilin was only six-month old when she lost both her parents in a shocking murder. Her father was a worker in ABB's Chongqing transformer company. Relied upon support and care from ABB and her relatives, Shilin lived a happy and healthy life now.

## 爱心大接力

当中国面临灾难之时,坚持在中国走本地化发展之路的ABB始终与中国人并肩作战,不断续写爱心接力的感人故事。不管是非典、雪灾,还是地震,ABB始终心系灾区,捐钱捐物,同时派出技术人员到现场提供一线服务。

2003年,ABB全力支持北京政府抗击非典,捐资100万人民币 用于改善奋战在北京非典定点医院一线医务工作者的福利。

2005年,ABB在北京发起了向江西地震灾区捐赠御寒物品的活动,得到了同事们的积极响应。

2008年初,雪灾发生后,ABB通过中国扶贫基金会捐赠了100万人民币用于购买大米、毛毯等物资。ABB各地员工还纷纷开展了"ABB冬日暖阳"、"温暖心动"等活动,将ABB的爱心源源不断送往受灾山区。

5•12汶川地震后,ABB于13日迅速通过中国红十字总会向四川等地震灾区捐款100万元,用于购买赈灾必需品。随后,ABB的爱心活动不断升温,捐款数额持续攀升,达到815万元。

除了捐款捐物,ABB还全力支持电网客户修复电网、保障电力供应的抗灾工作。不管是雪灾还是地震,ABB均在各地开通了24小时热线,增加了备件库存,并安排技术人员全天候待命以提供及时支持,同时派出员工到灾区提供一线服务。

### Love relay

ABB, which insists on the localization strategy in China, always stands beside Chinese people, offering continuous love and support.

In 2003, ABB donated 1 million RMB to Beijing Municipal Government in appreciation of the front line medical personnel risking their lives by working in the SARS designated hospitals in Beijing.

In 2005, ABB employees donated winter-defensive goods for Jiangxi earthquake victims.

After the horrible snowstorm in early 2008, ABB donated 1 million RMB for buying rice, blankets and other materials for the needy people.

And after the massive earthquake in Sichuan, ABB's donation activities went on and on, bringing donation for earthquake victims to 8.15 million RMB.

Meanwhile, ABB opened a 24-hour hotline and increased inventories and prepared standby technical personnel, ready to provide timely support. After the disaster, ABB also directly dispatched technical teams to the spot to help customer solve the problems.



北京ABB高压开关设备有限公司加班加点生产,保障四川灾区恢复电力畅通 CNTHB colleagues speed up production to support power restoration in quake-hit Sichuan

## 珍惜家园

环境问题日益引发世界的关注,ABB也不例外,它用实际行动积极参与帮助中国全面改善环境的事业。

在厦门, ABB组成的40名志愿者与当地大学生和市民冒着酷暑, 一起携手开展生命之水行动, 清理厦门大学水库周边的外来物种—马缨丹, 并借助这个契机提高市民的环保意识。ABB还积极参与三峡库区周边绿化带示范区的建设项目, 改善三峡库区的生态环境。

为了保护首都环境,实现绿色奥运,ABB于2007年下半年发起了"参与沙地治理,关爱你我家园"的沙地治理项目。ABB在京五家公司上千名员工积极参与捐款,希望能够为北京的蓝天碧水尽自己的一份力量。通过员工募捐以及公司捐款,ABB在短短一个月时间内就筹集资金30万元。

尤其值得一提的是,ABB还联手主要客户之一的内蒙古电力公司,各自捐赠30万人民币,共同委托中国绿化基金会治理内蒙古自治区境内的10000亩沙地,建设友谊林,以进一步培育两家公司员工的社会责任意识。

## Caring homeland

The world has been increasingly putting eyes on the environmental issues, and ABB is no exception. With concrete actions, ABB is helping China improve the environment in an all-round way.

In Xiamen, a total of 40 volunteers from ABB joined hands with university students and local residents to clean up common lantana, an exotic plant around the Xiamen University Reservoir, taking the opportunity to increase the environment awareness of the local citizens.

In order to embrace a green Olympics in Beijing, ABB launched a campaign entitled "Reforest the desert, improve our homeland", which received very positive feedback and strong support from ABB employees in Beijing.

Sharing the same goal to green up the communities, ABB joined hands with one of its key customer – Inner Mongolia Power Company, each donating 300,000 RMB for reforesting 670 hectares of desert in Ordos, a city in Inner Mongolia.

## ABB中国的可持续发展事务

ABB中国拥有专门的可持续发展事务部,并拥有33名环保专业人士,48名职业健康和安全顾问,和26名企业社会责任协调人。同时,在ABB各本地企业中,拥有无数竭诚奉献的热心人士和志愿者,共同将可持续发展纳入公司的日常业务中。



**林鸿盛**: ABB中国公司可持续发展事务负责人 **Vincent Lim**, Country Sustainability Controller, ABB China

作为可持续发展事业的一员,我深感荣幸。我们工作所取得的每一步成功不仅 使我们的业务受益匪浅,而且有利于改善我们的社会和环境。

确保将ABB集团和中国管理层的指导原则、当地立法以及最佳实践融入我们的业务体系之中则是我的主要工作之一。从最初的业务接洽到最终交付,这一理念已经贯穿到我们所有的项目和工作之中。

依赖于质量、环境、职业健康与安全这一综合管理体系,ABB在华企业启动了一系列提高可持续发展绩效的活动,涉及节能、供应商环保资质、未遂事故报告、安全行为观察、差旅安全和社会公益等。与此同时,我们必须继续提高安全绩效,营造"安全是每个人的责任"的企业文化。

I have the privilege to be part of several significant achiev-ements benefiting our business, society and environment.

A key role of my work is to ensure that guidance from ABB Group, China management team, local legislation and best practice are incorporated into our business systems and procedures. They have to be implemented throughout every project and task – from initial contact with customer to commissioning and delivery.

On the platform of the integrated quality, environment, occupational health and safety management system, ABB companies in China have initiated numerous programs to improve the sustainability performance including energy savings, supplier environmental qualification, nearmiss reporting, safety observation tour, travel security and social contributions. We continue to establish a safety culture in which everyone feels personally responsible for their safety at work.



**刘文汇**: ABB中国公司企业传播副总裁 **Isabelle Liu**, Vice President, Corporate Communications, ABB China

ABB作为本地企业公民的强烈责任感,是我三年前选择加入ABB公司的重要诱因之一。当你发现一个企业的业务核心里包含了很强的责任感时,你就知道这个企业会如何对待她的员工、客户、合作伙伴,以及联系紧密的社会。你就知道她会如何开展业务,奉献什么样的技术和产品……我非常高兴许多人怀着与我同样的想法选择了ABB。

ABB每年都会开展众多的社会责任活动, 支持教育、保护环境、支持社会公益行 动。与此同时,越来越多的ABB员工踊 跃参加各种志愿者活动,以多种形式帮 助社会弱势群体。

我们很重视借鉴他人的经验,不断提 升ABB作为中国优秀企业公民的社会 价值。

ABB's strong sense of responsibility as a local corporate citizen is a key motivator for me to join this company three years ago.

When you find responsibility in the core of a company's business, you will know how it will treat its people, its customers and partners, as well as the community and society it's linked with. You will know how it will conduct its business and what technologies and products it will bring. I am glad to see that many colleagues and partners share the same opinion in choosing ABB.

We implement many corporate social responsibility initiatives each year, and more and more people in the company volunteer to support the disadvantaged in one way or another. We are keen to learn from others' experiences and keep growing our added values as a good corporate citizen.



**徐少京**: ABB中国公司增效节能项目经理 **Shaojing Xu**, Energy Efficiency Project Manager, ABB China

当前能源供需矛盾日趋严峻,利用ABB 先进、成熟和高效的产品和技术解决方 案支持我们的客户在工业和民用领域实 现节能增效的目的,与其说是一个全新 而赋有挑战性的项目,不如说是ABB的 使命和愿景的一项具体体现。

为了这个目标,公司组织了一系列以"节约下来的能源是最绿的能源"为主题的大型活动;加强了与各利益相关方在节能降耗问题上的合作,并在广东启动了试点项目;同时,我们在公司内部协助各业务部门扩大业务视角,为用户制定更加优化的节能方案。

我们项目组感到非常荣幸和骄傲能成为这场变革的参与者和见证者。我们坚信,这场绿色革命之风,必将为中国经济和ABB发展之航船提供更加强劲的清洁动力。

Facing energy challenge, ABB's advanced, proven and efficient products, technologies and solutions can enable utility and industry customers to improve energy efficiency, which reflects ABB's mission and vision.

To reach this goal, ABB China has organized a series of events with the topic of "The greenest energy is energy saved." We strengthened cooperation with our stakeholders on energy efficiency, such as launching a pilot project with a paper factory in Guangdong. Internally, we have been coordinating with our business units in order to provide our customers with optimized solutions.

It is very proud for our team to participate in energy efficient projects. We believe that this green revolution will inject clean power for the development of both ABB and economy of China.

## Sustainability in ABB China

ABB has a special sustainability affairs department, with 33 environmental professionals, 48 occupational health and safety advisors and 26 corporate social responsibility coordinators. Meanwhile, there are numerous volunteers working to embed sustainability in the daily business and ensure best practice.



**王静**: ABB中国公司一名市场传播主管 **Jennifer Wang**, marketing communication supervisor, ABB China AP&PA division

作为ABB中国的一名市场宣传人员,每年 我都会组织多场展会活动,而可持续发展 一直是我们活动宣传的主要话题。不论 是我们的企业形象海报还是宣传片,无不 体现了可持续发展的精神。

具体来讲,节能则是可持续发展的一个 重要内容。增效节能几乎是ABB所有产 品的特点和亮点。

同样在实际工作中,我们也一直贯彻着这种精神,比如尽可能将展台多次重复使用。今年ABB在上海、广州和重庆参加了三场节能展,我们就使用了同一个展台。同时展台也尽可能使用环保材料,比如能反复拆装的标准件等,以尽量减少对环境的影响。

As a communicator in ABB China, I will coordinate many events. From corporate image to promotion video, sustainability is always the key topic.

To be specific, energy saving is an important perspective of sustainability. And energy efficiency is the distinctive point of almost all ABB products.

In our daily work, we always follow the spirit of sustainability, such as repeat use of exhibition desk.

In 2008, ABB participated in three energy-saving exhibitions in Shanghai, Guangzhou and Chongqing. We choose environment-friendly material for exhibition booth, in order to lower the environmental impacts.



**杨飞雪**: ABB中国机器人业务部的QEHS经理 **Snow Yang**, QEHS manager, ABB China robotics division

虽然机器人业务部已获得ISO 14001和 OHSAS 18001的认证,但我和我的同事依然不遗余力提高我们部门员工的可持续发展意识。

机器人业务部不仅在内部进行监控,同时高度关注供应商和分包商的环保资质。我们同供应链部门的同事一起对新供应商进行认证并对供应商开展周期评审,同时敦促供应商减少和消除使用ABB所规定的受限和禁止的有害物质。

另外,我们将健康与安全意识贯穿于工作和生活之中。我们已经出版了机器人业务部的安全月刊,另外在员工通道处设置了时常更新的公告板, 以传达公司的安全现状以及分享ABB世界各地的经验教训。

Though ABB China Robotics division has been externally certified to ISO 14001 and OHSAS 18001, I still spent a lot of efforts to increase employees' sustainability sense and knowledge.

Our division not only carries out strict internal control, but also attaches much importance to the sustainability performance of the suppliers and sub-contractors.

Meanwhile, many efforts are put into increasing our employees' awareness of occupational health and safety. We have been publishing monthly safety newsletter, and set up a notice board at employee entrance to show the company's safety situation and share worldwide experience in ABB.



**曾立**: ABB重庆变压器设计中心机械及控制箱设计分部经理

**Lisa Zeng**, mechanical & control cabinet design section manager, ABB Chongqing transformer design center

作为变压器设计师,我和我的同事一直 将可持续发展理念融入到我们的设计研 发工作之中。

从变压器设计到生产工艺,都对低噪音、低损耗的要求进行了充分考虑,并对各 关键流程进行严格控制。

值得我们骄傲的是,中央电视台《新闻联播》曾报道,作为2008北京奥运会电力建设重点工程之一的北京朝阳500千伏变电站工程,仅主变压器损耗一项,一年就将节省近30万度电。而该站的6台主变压器全部采用了重庆ABB变压器有限公司生产的400MVA/500kV单相自耦电力变压器。

As a transformer designer, I always integrate sustainability performance into our design and research work.

From the beginning of transformer design to the production engineering, we paid full consideration to meet the requirements of low noise and low losses. Furthermore, each manufacturing procedure was strictly controlled.

To our pride, CCTV News Broadcast once reported that nearly 300,000 kWh power will be saved annually due to lower losses of main transformers at the new Chaoyang 500kV Substation in Beijing. All the 6 units of 400 MVA / 500kV single phase auto power transformers were produced by our Company.

## ABB可持续发展政策

持续提高我们所在社区和国家/地区的经济发展水平、改善当地环境、促进当地社会事业发展以及提高人们的生活品质是ABB孜孜以求的目标。

为了实现这些目标并促进可持续发展,ABB实施了五项分别 涉及环境、社会、健康与安全、人权以及商业道德的政策。

## ABB的环境政策

#### 导言

ABB将不遗余力地开发资源节约型产品和系统,继续加强与客户的合作,帮助他们选择最环保的产品、系统和解决方案。环境政策重点要解决贯穿ABB产品整个生命周期(供应商和承包商→客户使用产品→产品最终的处理和回收再利用)的环境管理问题,这些环境问题涉及九个重要方面。

## 政策

- 1. 通过在全球各地的所有运作中建立环境管理体系 (ISO14001),落实环境原则(如承诺持续改进、守法、员工的意识培训),以环境友好的方式运作我们的业务。
- 2. 鼓励供应商、分包商和客户采用国际环境标准,从而增强价值链各个环节的环境责任感。
- 3. 以能源和资源效率为中心改进我们的制造工艺。
- 4. 开展工厂环境绩效的定期审核,以及与并购和业务剥离相关的环境审核。
- 5. 向发展中国家转让高生态效率的技术。
- 6. 开发和推广资源效率更高并且有助于更好地利用可再生 能源的产品和系统。
- 7. 发布基于生命周期评估的产品环境声明,公示我们核心 产品的环境绩效。
- 8. 将环境因素列入重大客户项目的风险评估中。
- 9. 按照GRI的要求,编制年度可持续发展报告,并委托独立机构对其进行审查,从而确保报告的透明性。

### ABB的社会政策

#### 异言

在寻求促进经济发展和改善环境的同时,ABB也承认社会行为是实现可持续发展的关键。ABB的社会政策面向所有员工,适用于ABB拥有直接影响力的全部区域。ABB制定社会政策的五个依据为:联合国的《世界人权宣言》、国际劳工组织的《工作

中基本原则与权利宣言》、经济合作与开发组织的《跨国企业准则》、《全球苏利文原则》与社会责任管理标准(SA8000)。

#### 政策

- 1. ABB和社会:在我们的能力范围内,和利益相关方公开对话,积极参加共同努力,为改善经济、环境和社会状况做贡献。
- 2. 人权:支持并尊重对国际公认的人权进行保护。确保保安人员在雇员和承包商员工的工作场所遵守国际人权规范。
- 3. 儿童和青年工人:保证未成年人得到适当的保护;作为一个基本原则,不雇用童工,不支持使用童工,除非是政府批准的青年人培训计划(如工作经历项目)。
- 4. 雇用自由: 所有雇员均应自愿被公司雇用; 招聘时不得使用任何强制措施,不得支持任何形式的强迫劳动。
- 5. 健康与安全: 在所有的工作场地提供安全、健康的工作环境,采取足够措施防止工作过程中的事故和伤害,在合理和可行的前提下,最大限度地减少工作环境中的危险因素。
- 6. 雇员协商和沟通:定期和所有雇员商谈,处理其关心的问题。 尊重所有员工自由成立和参加工会以及集体谈判的权利。

保证工会的代表不受歧视,并且可以到工作地点接触到他 们的会员。

保证当遇到大规模减员时,具有社会福利计划和指导,而 且雇员或他们的正式代表已经知道。

- 7. 机会平等: 为所有雇员提供平等的机会,在雇佣、报酬、接受培训、提升、解聘或退休事务上,不从事或支持基于种族和民族、社会等级、宗教、伤残、性别、年龄、性别取向、工会成员或政治派别的歧视行为。
- 8. 违纪和惩戒:反对使用精神上或肉体上的威胁、谩骂或肉体/苦工惩罚,并且不允许带有性别的、强制的、威胁的、凌辱性的或剥削性的行为,包括姿态、语言和身体的接触。开发并维持公平的程序,用于处理雇员的申诉和公平地执行纪律。
- 9. 工作时间: 在工作时间和加班的问题上,执行适用的法律和产业标准。
- 10. 报酬:保证所付的工资达到或超过法律或产业规定的最低标准,总能满足员工的基本需求并提供一些可随意支配的收入。

保证向工人清晰、合法地列明工资和福利的构成成分,并且,报酬的支付要完全符合所有适用的法律并尽可能方便工人。

保证不使用纯劳力的契约安排和虚假见习期计划,以此来逃避适用的劳工和社会安全法规中规定的ABB对员工应尽的义务。

- 11. 供应商: 建立和保持恰当的程序,根据供货商满足ABB社会政策和原则要求的能力,来评估和选择主要的供应商和分供商,并保存合理的证据以证明他们能持续满足这些要求。
- 12. 参加社区活动:ABB承诺促进和参加社区相关的活动,积极地推进经济、环境、社会和教育的发展。
- 13. 商业道德:坚持最高标准的商业道德和诚实,支持国家和国际当局为所有商务建立和实施高标准道德准则的努力。

## ABB的人权政策

#### 导言

ABB致力于建立全新的企业文化,实施符合国际公认的人权标准的政策,力争避免滥用人权政策的现象。我们支持《世界人权宣言》(联合国)、《跨国企业准则》(经济合作与开发组织)和国际劳工组织关于劳工标准的核心公约中所倡导的原则。

ABB将根据以下政策,在我们的影响和活动范围内致力于识别、评估和管理对人权的影响:

#### 政策

- 1. 员工:根据国际劳工组织《工作中基本原则与权利宣言》倡导的原则尊重每个员工的人权,包括非歧视性原则、禁止使用童工和强迫性劳动、允许员工自由结社和参与集体谈判。
- 2. 供应商与承包商:按照ABB的人权和社会政策,创建和维护用以评估和筛选大供应商和承包商的合适程序,并适当监督他们的表现。

通过参与和必要的协作,推进国际劳工组织《工作中基本原则与权利宣言》的实施进度。

3. 当地社区: 尊重我们所在社区的文化、习俗和人们的价值观。

通过改善经济、环境和社会状况,ABB在力所能及的范围 内推进人权进程、在公司开展业务的社区发挥积极作用。

ABB还不断寻求与利益相关方公开对话,积极参与社区组织的活动。

为确保保安服务提供方符合国际最佳实践标准和所在国家和地区的法律要求,ABB只在必要时使用保安服务,要求保安公司只能在必要并且受到相当程度的威胁时才能采取暴力手段。

4. 社会:保持中立态度,在适当的时候参与公共事务,以负责任的态度推进国际公认的人权标准。

在力所能及的范围内在ABB运营的国家和地区为实现人权 发挥积极作用。

借助我们的核心业务和适当参与当地利益相关方组织的活动,促进环境的可持续发展。

遵守严格的商业道德规范,坚持诚信正直的原则,在适当 范围内支持本国和国际社会为制定和实施良好的商业道德 规范而开展的工作。

## ABB的健康与安全政策

### 导言

ABB力争在所有的工作场地提供安全健康的工作环境,采取足够措施防止工作过程中的事故和伤害,在合理可行的前提下,最大限度地减少工作环境中的危险因素。

#### 政策

- 1. 提高领导力和责任感,各级经理负有明确的安全责任和义务,并拥有实现其安全职责的资源。
- 2. 职业健康与安全风险的管理贯穿各个项目、服务或产品制造生命周期的每个阶段。符合所在国家的标准和国际标准是ABB的最低要求。
- 3. 清楚表明履行职业健康与安全职责所需的能力,以确保所有经理、员工、安全顾问和承包商了解各自的职责,并通过培训和经验完成职责。
- 4. 选择满足ABB健康与安全要求的承包商和供应商,以确保 承包商和商业伙伴的工作安全。
- 5. 职业健康与安全管理要融入全球和地方层面的变革管理流程中。
- 6. 确保危机和应急管理体系有效。
- 7. 确保事故分析和预防措施有效。
- 8. 确保各级经理在有效的报告程序的支持下对健康与安全绩效的定期审核。

#### ABB的商业道德政策

### 导言

作为公司核心价值观和指导原则的不可分割的一部分,商业 道德已被纳入ABB新制定的《行为准则》。该准则明确提出 了对于违规行为的"零容忍"原则。

#### 政策

遵守严格的商业道德规范,坚持诚信正直的原则,支持本国和国际社会为制定和实施良好的商业道德规范所开展的工作。

## ABB's sustainability policies

Our goal is to improve our economic, environmental and social performance continuously, and improve the quality of life in the communities and countries where we operate.

To guide us toward this goal, ABB applies five policies each relevant to the five areas which contribute to our sustainability performance, namely: environmental, social, health and safety, human rights and business ethics.

## ABB's environmental policy

#### Preamble

ABB is committed to developing resource-efficient products and systems and to conducting ongoing dialogue with customers to help them select the most environmentally friendly products, systems and solutions. The environmental policy focuses on the management of environmental issues in nine key areas throughout the life cycle of ABB products from suppliers and contractors, through the customers' use of our products, to their eventual disposal and recycling at the end of their useful life.

#### **Policy**

- To conduct our operations in an environmentally sound manner by applying environmental management systems, such as ISO 14001, in all our operations and by applying environmental principles, such as commitment to continual improvement, legal compliance and awareness training of employees, in all our operations worldwide.
- To promote environmental responsibility along the value chain by encouraging suppliers, subcontractors and customers to adopt international environmental standards.
- 3. To develop our manufacturing processes with a focus on energy and resource efficiency.
- 4. To conduct regular audits of our facilities' environmental performance, including facilities involved in acquisitions, divestments and mergers.
- 5. To transfer eco-efficient technologies to developing countries.
- To develop and market products and systems, which are resource-efficient and facilitate use of renewable energy sources.

- 7. To declare the environmental performance of our core products by publishing environmental product declarations based on Life Cycle Assessment.
- 8. To include environmental aspects in the risk assessment of major customer projects.
- To ensure transparency by producing an annual Sustainability review, based on Global Reporting Initiative (GRI) requirements, which is independently verified.

### ABB's social policy

#### Preamble

As well as seeking to contribute economically and environmentally, ABB recognizes social performance as a key to sustainable development. ABB's social policy applies to all employees and is applicable to areas that ABB can directly influence. It draws on five sources: the United Nations Universal Declaration of Human Rights, the International Labour Organization's Fundamental Principles and Rights at Work, the Organization for Economic Cooperation and Development's Guidelines for Multinational Enterprises, the Global Sullivan Principles and the Social Accountability 8000 (SA8000) standard.

#### Policy

- ABB in society: To contribute within the scope of our capabilities to improving economic, environmental and social conditions through open dialogue with stakeholders and through active participation in common efforts.
- 2. Human rights: To support and respect the protection of internationally proclaimed human rights.
  - To ensure that employees and contractors engaged as security personnel observe international human rights norms in their work.
- Children and young workers: To ensure that minors are properly protected; and as a fundamental principle, not to employ children or support the use of child labor, except as part of government-approved youth training schemes (such as work-experience programs).
- 4. Freedom of engagement: To require that all employees enter into employment with the company of their own free will; and not to apply any coercion when engaging employees or support any form of forced or compulsory labor.

- 5. Health and safety: To provide a safe and healthy working environment at all sites and facilities and to take adequate steps to prevent accidents and injury to health arising from the course of work by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.
- Employee consultation and communication: To facilitate regular consultation with all employees to address areas of concern. To respect the right of all personnel to form and join trade unions of their choice and to bargain collectively.

To ensure that employee representatives are not the subject of discrimination and that such representatives have access to their members in the workplace.

To ensure, in case of major layoffs, that a social benefits and guidance plan is in place and already known to employees or their official representatives.

- 7. Equality of opportunity: To offer equal opportunity to all employees and not to engage in or support discrimination in hiring, compensation, access to training, promotion, termination or retirement based on ethnic or national origin, caste, religion, disability, sex, age, sexual orientation, union membership or political affiliation.
- 8. Harassment and disciplinary practices: To oppose the use of mental or physical coercion, verbal abuse or corporal/hard-labor punishment; and not to allow behavior, including gestures, language and physical contact, that is sexual, coercive, threatening, abusive or exploitative.

To develop and maintain equitable procedures to deal with employee grievances and disciplinary practices.

- 9. Working hours: To comply with applicable laws and industry standards on working hours, including overtime.
- 10. Compensation: To ensure that wages paid meet or exceed the legal or industry minimum standards, and are always sufficient to meet the basic needs of personnel and to provide some discretionary income.

To ensure that wage and benefits composition are detailed clearly and regularly for workers, and that compensation is rendered in full compliance with all applicable laws and in a manner convenient to workers.

To ensure that labor-only contracting arrangements and apprenticeship schemes are undertaken in full compliance with ABB's obligations under applicable laws pertaining to labor and social security legislation and regulations.

- 11.Suppliers: To establish and maintain appropriate procedures to evaluate and select major suppliers and subcontractors on their ability to meet the requirements of ABB's social policy and principles, and to maintain reasonable evidence that these requirements are continuing to be met.
- 12. Community involvement: To promote and participate in community engagement activities that actively foster economic, environmental, social and educational development, as part of ABB's commitment to the communities where it operates.
- 13. Business ethics: To uphold the highest standards of business ethics and integrity and to support efforts of national and international authorities to establish and enforce high ethical standards for all businesses.

## ABB's human rights policy

#### Preamble

ABB is committed to developing an organizational culture which implements a policy of support for internationally recognized human rights and seeks to avoid complicity in human rights abuses. We support the principles contained within the Universal Declaration of Human Rights, the OECD Guidelines for Multinational Enterprises and the ILO Core Conventions on Labor Standards.

ABB seeks to identify, assess and manage human rights impacts within our spheres of influence and activities in line with the following policy aims:

#### Policy

- Employees: To respect the human rights of our employees as established in the ILO's Declaration on Fundamental Principles and Rights at Work, including non-discrimination, prohibition of child and enforced labor, and freedom of association and the right to engage in collective bargaining.
- Suppliers and contractors: To establish and maintain appropriate procedures to evaluate and select major suppliers and contractors, based on ABB's human rights and social policies, and to monitor their performance where appropriate.

To advance the application of the ILO Declaration on Fundamental Principles and Rights at Work through engagement and collaboration where necessary.

3. Local communities: To respect the cultures, customs and values of the people in communities in which we operate.

To contribute, within the scope of our capabilities, to promote the fulfillment of human rights through improving economic, environmental and social conditions, and serve as a positive influence in communities in which we operate.

To seek to have open dialogue with stakeholders and participate in community engagement activities.

To aim to ensure the provision of security is consistent with international standards of best practice and the laws of the countries in which we operate, using security services only where necessary and requiring the use of force only when necessary and proportionate to the threat.

4. Society: To participate where appropriate in public affairs in a non-partisan and responsible way to promote internationally recognized human rights.

To seek to play a positive role, within our spheres of influence, in capacity building for the realization of human rights within countries of operation.

To promote the realization of environmental sustainability and development through our core business and through our participation in other multistakeholder activities where appropriate.

To uphold the highest standards in business ethics and integrity and where appropriate to support efforts of national and international authorities to establish and enforce high ethical standards for all businesses.

## ABB's health and safety policy

#### Preamble

ABB seeks to provide a safe and healthy working environment at all sites and facilities and to take adequate steps to prevent accidents and injury to health arising from the course of work by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

#### Policy

- To promote leadership and accountability, with clearly defined responsibilities, resources and accountability for managers.
- To manage health and safety risks at every stage of project, service or manufacturing life cycle, where meeting national and international standards is the minimum requirement.
- To demonstrate health and safety competence so that all managers, employees, safety advisors and contractors know their responsibilities and have the training and experience to carry them out.
- To ensure safe contractors and business partners by selecting contractors and suppliers that perform to ABB's health and safety requirements.
- To ensure health and safety is integrated into the processes for managing change, both globally and locally.
- 6. To ensure a crisis and emergency management system is in place.
- 7. To ensure accident analysis and prevention is in place.
- 8. To ensure routine reviews of health and safety performance by managers, supported by a reporting process.

## ABB's business ethics policy

#### Preamble

ABB's policy on business ethics belongs to the company's core set of values and guiding principles. It is incorporated in ABB's Code of Conduct, which sets a "zero-tolerance" ruling on non-compliance.

#### Policy

ABB seeks to uphold the highest standards of business ethics and integrity and to support efforts of national and international authorities to establish and enforce high ethical standards for all businesses.



## 商业道德与合规

作为公司核心价值观和指导原则的不可分割的一部分,商业道德已被纳入ABB新制定的《行为准则》。在继承并更新之前商业道德原则的基础上,新《行为准则》重申了ABB对于违规行为的"零容忍"原则。

在ABB的未来愿景中,商业道德将成为公司的一个标志。到 2009年,ABB希望成为全球顶尖的工程公司,这意味着ABB 需要在市场影响力、增长和盈利能力、价值创造、可持续发 展能力以及商业道德各个方面均出类拔萃。

### 全球合规机构

ABB承诺毫不妥协地以最高标准对待合规方面的问题并且严格落实"零容忍"原则。

作为公司两个董事会委员会中的一个,财务、审计和合规委员会主要负责监督公司的合规工作,定期向董事会汇报。 ABB首席合规官定期向该委员会汇报工作。在实际操作中, ABB汇集了一批合规、法律与审计等方面的专家,组成了一个强有力的公司合规团队。

分布于60多个国家和地区的各级合规官员在ABB首席合规官的指导下,负责为公司各地员工提供培训和咨询,并监督他们的工作。公司的合规部门承担着发布信息、提供指导、促进内部沟通以及为商业道德教育和培训提供支持等多项任务。

员工可以通过公司内部网,获得与商业道德合规相关的信息、 指南、文档、表格和协议。为了方便员工咨询和提问,还向 公司员工提供了响应服务中心以及合规机构的详细信息。

#### 2007年取得的成就

2007年, ABB加强了执行力度, 更深入地开展了公司合规工作。

#### 主要成就如下:

- 在2006年委员会基础上,建立了合规委员会的常务委员会,该委员会由ABB四名执行委员会成员组成,公司总法律顾问担任主席。该委员会负责设计和实施公司合规框架,并处理合规相关案例。
- 建立了地区性的合规官员组织架构,同时将参加处理合规 事宜的员工数量增至206人,相当于55个全职合规工作人 员(2006年为40个)。
- 逐步建立由美洲、亚太和欧洲/中东/非洲三个重要地区的公司官员组成的特别调查机构。
- 提高了员工对于《行为准则》的认可度,所有员工都已经 接受并承诺遵守《行为准则》。

- ABB要求公司职位最高的500名管理人员每年都要重新承诺 践行公司《行为准则》。
- 发布了新的《公司政治捐款和慈善捐赠指令》,并修订了 现有的涉及公司治理结构和内容的合规指令,包括关于使 用中介和代理;反贿赂和反腐败;以及礼物、娱乐和其他 支出的三个公司指令。
- 为所有国家和地区的合规官员提供了集中的全球性的培训。
- 引入了一种新式电子培训课程,针对特定员工重点进行了 反垄断、如何使用代理和中介方面的合规培训。
- 整合了由外部供应商运营的24小时商业道德热线(始于2006年),这条热线能接受约90种语言,以便报告潜在的违规行为;如果举报人不愿透露真实身份,还可以采取匿名方式拨打热线。

### 对外联系

ABB是反腐败联盟——透明国际的资助者,并与巴塞尔公司治理研究院(BIG)建立了工作联系。

此外,ABB还是世界经济论坛"合作反腐败计划"(PACI) 的缔约方,全球已经大约有120家公司成为该计划的成员。

作为"联合国全球契约"的缔约方,ABB遵照该契约的第十条原则行事。该原则呼吁企业反对包括敲诈、勒索和贿赂在内的一切腐败行为。ABB还积极参与了世界经济论坛"合作反腐败计划"和"联合国全球契约"的工作会议。

### 继续前讲

ABB全体员工对公司《行为准则》和公司对于不合规行为"零容忍"原则的认识今天已经达到了一个新高度。

董事会会议、执行委员会会议、项目风险评估委员会会议都已经在定期对合规事宜进行评估和讨论。另外,执行委员会成员在视察各地区和各业务部门工作时也会讨论与此相关的问题。

ABB的目标就是不断改进流程,并规范公司员工和各利益相关方的行为。这一切都是为了能够更专注于我们的使命: "power and productivity for a better world。"

## Business ethics and compliance

Business ethics belongs to the company's core set of values and guiding principles. It is incorporated in ABB's new Code of Conduct, which replaced the former business ethics principles and reiterates ABB's "zero-tolerance" policy on non-compliance.

In ABB's vision for the future, ethics will be one of the hallmarks of the company: By 2009, ABB wants to be recognized as the top global engineering company in terms of market impact, growth and profitability, value creation, sustainability and ethical behavior.

## Global compliance organization

ABB is committed at its highest level to forcefully address compliance issues and to enforce zero tolerance.

The Finance, Audit and Compliance Committee - one of the two Board committees - oversees ABB's compliance program and reports to the Board of Directors on a regular basis. The Group Chief Compliance Officer regularly reports to this committee. At the operating level, ABB's specialist headquarter resources in the areas of compliance, legal and audit, work together in the Group Compliance Team.

Under the direction of the Group Chief Compliance Officer, regional and local compliance officers in more than 60 countries train, advise and monitor employees in all parts of the organization. This global organization distributes information and guidance, fosters internal dialogue and supports ethical education and training.

Employees have access via the Group's global intranet to information, guidelines, documents, forms and useful agreements covering all aspects of the business ethics compliance program. Response help desks and details of the compliance organization are also provided to facilitate consultation or questions.

#### Achievements in 2007

During 2007, ABB deepened the implementation of the Group compliance program and strengthened its execution.

Achievements during the year have been:

- Establishing a standing Compliance Committee, following the work of the task force created in 2006, comprising four members of ABB's Executive Committee chaired by the Group's General Counsel, tasked to design and implement the compliance framework and to manage compliance cases.
- Organizing the compliance officers into a regional structure, and increasing the number of people working in compliance to 206, which corresponds to 55 full-time equivalents (up from 40 in 2006).
- Continuing to build up the Special Investigations Organization with officers based in three main regions the Americas, Asia-Pacific, and Europe/Middle East/Africa.

- Bringing the acknowledgement process for the Code of Conduct to a level where all employees confirm acceptance and commitment.
- Introducing a yearly recommitment to the Code of Conduct by the top 500 managers in the Group.
- Launching a new Group Directive for Political and Charitable Contributions as well as implementing amendments to existing compliance directives describing the structure and contents of corporate governance within ABB, including three Group directives addressing intermediaries and agents, bribery and corruption, and gifts, entertainment and expenses.
- Conducting focused global training workshops for all regional and country compliance officers.
- Introducing new e-learning initiatives for selective categories of employees focusing on Antitrust, and Agents and Intermediaries.
- Consolidating the 24-hour Business Ethics hotline, started in 2006 and operated by an external provider, where potential compliance violations can be reported in about 90 languages; if desired by the caller in an anonymous manner.

#### External liaisons and commitments

ABB is a group contributor and donor to Transparency International, the coalition against corruption, and liaises with the Basel Institute on Governance.

ABB is also a signatory to the World Economic Forum's Partnering Against Corruption Initiative (PACI), which has been signed by around 120 companies.

As a signatory to the United Nations Global Compact, ABB also adheres to its 10th principle, which calls on businesses to work against all forms of corruption, including extortion and bribery. ABB representatives actively participate in PACI and UN Global Compact working meetings.

## Going forward

Awareness of ABB's Code of Conduct and zero-tolerance response to non-compliance has now reached a high level among all employees.

Compliance matters are regularly reviewed and discussed at Board meetings, Executive Committee meetings, Project Risk Review Committee meetings and by Executive Committee members when visiting countries and business units.

The aim is to strive for continuous improvement - in our processes and in the behavior of our employees and our stakeholders - so that we can better focus on our mission of providing "power and productivity for a better world."

## ABB对于气候变化和全球变暖的立场

## ABB's position on climate change and global warming

联合国国家间环境变化专门小组认为,人为排放的温室气体——主要是二氧化碳(CO<sub>2</sub>)正在影响全球的气候。通过《京都议定书》,大多数工业化国家已经同意减少排放温室气体。

ABB也同样关注全球变暖问题,并且承诺努力减少温室气体 排放。在降低温室气体排放和稳定全球温度方面,我们支持 《京都议定书》,并愿意和不同国家和国际组织共同努力。

虽然我们知道改变世界能源供应结构需要一定时间,但我们认为,现在我们能够采取其他措施减少温室气体的排放。例如,鼓励节能和提高能源效率将对减少排放产生直接而有益的影响.

1999年,我们设定了未来5年ABB每年减少温室气体排放1%的目标。ABB通过在整个集团内大量的改进项目实现了这个目标。2006年,我们定下新目标:未来两年每单位产量耗能减少5%。对目前和未来国际上有助于ABB弥补其所排放的二氧化碳的公约,ABB执行委员会已经同意进行研究。

ABB对减少温室气体排放所作出的最大贡献主要通过其产品实现。例如,我们先进的工业信息技术用于控制和优化集成式系统、电网、建筑物和工业流程,节约了能源并减少了排放。

通过高压直流(HVDC和HVDC Light)输电技术联结的电力系统通过均匀分布负荷和更有效地使用一次能源,大大节省了能源,因此减少二氧化碳的排放。

ABB高效电机和变频传动装置大幅度减少了排放。安装在全球的ABB传动装置每年节省了1.15亿兆瓦时的电能,相当于每年减少排放9700万吨的二氧化碳。

ABB产品的设计为这些产品提供了整个寿命周期内的最佳性能。采用寿命周期评估的方法,ABB可为客户提供需要较少的材料、具有更高效率和消耗较少能量的产品和系统,这意味着较低的温室气体排放,尤其是在很长的运用寿命周期内。

The United Nations Intergovernmental Panel on Climate Change presents increasingly convincing evidence that man-made emissions of greenhouse gases – mainly carbon dioxide CO<sub>2</sub> – are influencing global climate.

ABB shares the concern about global warming and is committed to the pursuit of emission reductions. We support the Kyoto Protocol and other national and international efforts to lower greenhouse gas emissions and stabilize global temperatures.

While recognizing that reshaping the world's energy supply sources will take time, ABB believes that other actions to cut greenhouse gas emissions can already be taken now: For example, stimulating energy savings and energy efficiency will have an immediate beneficial impact on emissions.

In 1999, ABB set a target to reduce our own greenhouse gas emissions by 1% per year over the following five years. We accomplished this through a large number of improvement projects throughout ABB. In 2006, we set a new target to reduce the use of energy per output unit by 5% over a two-year period. The Executive Committee also sanctioned the investigation of current and upcoming international instruments that would help ABB to compensate for its CO<sub>2</sub> emissions.

ABB's greatest contribution to the reduction of greenhouse gas emissions is through its products. For example, our advanced industrial information technology for the control and optimization of integrated systems, electrical power grids, buildings and industrial processes saves energy and reduces emissions.

The interconnection of power systems with high-voltage direct current HVDC and HVDC Light technology makes large savings through a more even distribution of loads and a more efficient use of primary energy resources, thereby reducing CO<sub>2</sub> emissions.

ABB's high-efficiency motors and variable-speed drives for motors contribute to large emission reductions. ABB drives installed worldwide save some 115 million megawatt-hours of energy per year, corresponding to an ongoing reduction of CO<sub>2</sub> emissions of 97 million tons each and every year.

ABB's products are designed to give optimal performance over their complete life cycles. Using Life Cycle Assessments, ABB delivers products and systems that require less material, have higher efficiencies and consume less energy, which means lower greenhouse gas emissions – particularly over long operating lifetimes.

## ABB对于六氟化硫(SF6)的立场

## ABB's position on sulfur hexafluoride (SF6)

六氟化硫是一种人造气体,用于电气设备,以及半导体制造和某些国家的镁铸造的密封气体。它是《京都议定书》所列的温室效应潜值最高的气体之一。

与二氧化碳(导致温室效应的主要气体)的排放相比,逸散到大气层中的六氟化硫的量很小。尽管六氟化硫温室效应潜值是二氧化碳的22,200倍,六氟化硫可能只占人类所造成的温室效应的0.1%。

同其他制造商一样,ABB使用六氟化硫生产安全、可靠和紧凑的高压电器设备。这种气体具有良好的绝缘和灭弧性能。 在加强使用六氟化硫的同时,土地使用、能量消耗、损失和废物度将会相应的减少。

生命周期评估显示,采取适当的预防措施后,这些优势超过了六氟化硫泄漏到大气中对环境的影响。

正常使用时,ABB的产品几乎不会排放六氟化硫。这种气体或者贮存在40年使用期内只需要一次气体处理的封闭系统内,或贮存在不需要气体处理的封闭系统内。

我们目前的封闭系统保证了这种气体每年的最大泄漏率为0.5%,这是与最新标准相符合。我们的密闭系统产品保证每年的泄漏率在0.1%以下。现场经验表明实际的排放量会更少。

六氟化硫使用时要受控。与泄漏相比,我们更关注生产、安装、维修和拆除期间的事故而产生的六氟化硫以外排放。为了将意外释放减到最小,ABB按照环保部门的建议,使用严格的物料跟踪和存货系统以及高效的气体处理系统。

为此,在负责开发六氟化硫再使用、再循环和处置指南的国际组织中,包括ICE、CIGRE、CAPIEL和NEMA,ABB一直发挥着重要作用。

同时,ABB也回收旧产品,并在可控的情况下进行分解和循环。 ABB正在研究进行六氟化硫替代物的研究项目,只要可行, ABB尽可能生产无六氟化硫的产品。 Sulfur hexafluoride (SF6) is a man-made gas. It is used in electrical equipment and also in such applications as semiconductor manufacture and cover gas in magnesium foundries in some countries. It is one of the most potent greenhouse gases listed in the Kyoto Protocol.

Compared to emissions of carbon dioxide (the main green-house gas), the amount of SF6 that escapes to the atmosphere is minute. Even though SF6 has a global warming potential some 22,200 times greater than carbon dioxide, SF6 probably accounts for about 0.1% man's contribution to the greenhouse effect.

Like many other manufacturers, ABB uses SF6 to make safe, reliable and compact high-voltage electrical equipment. The gas has excellent insulating and arc-quenching properties, which permit much more compact equipment designs than would otherwise be possible. Land use, energy consumption, losses and waste are all considerably reduced, while the potential for recycling is increased.

Life Cycle Assessments indicate that with proper precautions, these advantages outweigh the environmental impact of leakages of SF6 to the atmosphere.

In normal use, ABB products emit hardly any SF6. The gas is contained either in closed systems that require gas handling only once in a lifetime of 40 years, or in systems sealed for life that require no gas handling.

Our current closed systems guarantee a maximum leakage rate of 0.5% per year, which is in accordance with the latest standards. Our sealed system products guarantee leakage rates below 0.1% per year. Field experience shows that actual emissions are considerably less.

SF6 requires controlled handling. Accidental released of SF6 due to mishaps during manufacturing, installation, maintenance and decommissioning are a greater concern than leaks. To minimize emissions, ABB uses strict tracing and inventory systems and efficient handling procedures in line with the recommendations of environmental agencies.

To this end, ABB plays a leading role in the international organizations responsible for developing guidelines for the reuse, recycling and handling of SF6, including IEC, CIGRE, CAPIEL and NEMA.

ABB also takes back old products for dismantling and recycling under controlled conditions. We also have ongoing research programs into alternatives to SF6, and we make SF6-free products available whenever feasible.

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