

## Position Paper

**CORPORATE  
COMMUNICATIONS**

**Please contact:  
Christian Gerhardus**

# Energy efficiency and sustainability: HOCHTIEF's future markets

Opernplatz 2  
45128 Essen, Germany  
Tel.: +49 201 824-2642  
Fax: +49 201 824-2585  
presse@hochtief.de

### **Rising energy prices and accelerated climate change causing consequential costs of up to 800 billion euros**

Global energy consumption has roughly doubled since 1970. Natural resources such as coal or oil have been intensively exploited and CO<sub>2</sub> emissions have risen: From 18.3 billion tons in 1980 to 28.2 billion in 2005. This trend is continuing, leading to accelerated climate change and further increases in energy prices over the long term. The consequences of this development are enormous: According to estimates from the German Institute for Economic Research (DIW), in Germany alone consequential costs of up to 500 billion euros will be incurred over the next 50 years as a result of climate change—for example because of failed harvests or the need to build new flood defenses. Additional costs of up to 300 billion euros from increased energy prices are also expected. The German economy and its consumers will have to bear the burden of the total costs, amounting to 800 billion euros—quite irrespective of the environmental impact itself.

HOCHTIEF's services make many contributions to ensuring that alternative energy forms are used and savings potential exploited. For example on building sites: The Group is a worldwide leader in the "Green Building" segment, i.e. those buildings which are constructed with an eye to saving resources and which use far fewer primary resources and/or generate much lower energy costs over their lifetime. Real estate bears a major responsibility for environmental impact: In Europe, buildings give rise to over 50 percent of total consumption of end energy and 40 percent of CO<sub>2</sub> emissions. The construction industry is better placed than almost any other industry to make a decisive social and environmental contribution to greater sustainability.

HOCHTIEF makes this contribution by considering a project's entire lifecycle in advance: From the first idea or plan and financing, through to construction and later operation and possible redesignation of use or refurbishment. The construction service provider offers its services along a closely networked value chain of infrastructure projects, real estate and plant, working with an eye to the future and thus achieving synergies which benefit both the client (through lower energy costs) and the environment (through reduced emissions/use of resources). At the same time, the quality and efficiency of the building itself are improved, contributing to maintaining or increasing the given project's value.

HOCHTIEF's approach is international: subsidiaries such as HOCHTIEF Projektentwicklung, HOCHTIEF Construction, Turner and Leighton are erecting green buildings in Europe, America and Australia. Thus Turner, for example, is the Number 1 Green Builder in the USA, the world's biggest construction market. The company employs 600 certified specialists for green building and has already constructed 205 buildings which have been registered as sustainable, 80 of which have been built to the LEED US quality standard for sustainable buildings. In Australia, the subsidiary Leighton has developed and constructed the first office building to be awarded six stars by the Australian Green Building Council. In Germany, meanwhile, HOCHTIEF itself has been committed to encouraging a rethink within the industry for many years: alongside a large number of sustainable construction projects such as the WestendDuo in Frankfurt, the Group is a founding board member of the German Council for Sustainable Building (DGNB). The institution was set up in mid-2007 under the auspices of the World Green Building Council and, together with the Federal Ministry of Transport, Building and Urban Affairs, has introduced Germany's first quality seal for sustainable buildings. It should be noted that it is not only new buildings which can be "green". Using building diagnosis and energy management or energy refurbishment, HOCHTIEF can also transform existing buildings and plant into energy savers.

HOCHTIEF's services are however not merely restricted to the area of construction: For example HOCHTIEF Construction plans and builds coal and hydroelectric power plants which make more efficient use of resources and create fewer emissions. The company is also active in the growth market of offshore wind power. The subsidiary HOCHTIEF Energy Management for its part provides services in the area of so-called energy contracting. Here the Group optimizes energy costs and consumption for companies and institutions. In southern Germany, HOCHTIEF PPP Solutions and HOCHTIEF Construction, together with partners, are developing, financing and constructing the Federal Republic's first two geothermal power plants entirely financed from private sources. These are the first two projects in a series of plants in the southern German Molasse Basin. Each of the power plants has an output of four to five megawatts.

### **Market expectations**

Owing to the developments described above, the global construction market is facing a fundamental transformation: In HOCHTIEF's view, large and demanding general construction projects in particular will in future only be planned and implemented based on sustainability criteria. In Australia, for example, where severe drought has prevailed for the last five years, a sustainable concept is already essential before a project developer can successfully place buildings on the market.

HOCHTIEF itself already generates around ten percent of its work done volume from sustainable construction projects, predominantly in North America and Europe. The Group expects that by 2011 around half of its German construction business will be implemented based on sustainability criteria. In Europe, this should by then account for at least 25 percent of sales. The company expects a corresponding development in terms of earnings contribution. As a major global provider, the Group is already almost ideally positioned for this growth market, and the potential is huge:

- The energy refurbishment of 25 percent of all existing German buildings within ten years would mean an investment volume of 30 billion euros per year. (Dialog Forum, Construction and Living, Climate Research Summit, Hamburg, 2007)
- The market potential for energy contracting in European countries has a value of between five and 15 billion euros. (Faktor Contracting, Faktor Verlag, No. 5, Switzerland, 2005)
- The German Renewable Energy Federation (BEE) has announced investments worth over 200 billion euros up to 2020 for the development of renewable energies. (VDI Nachrichten, May 16, 2008)
- The market for technologies to reduce CO<sub>2</sub> emissions could multiply six-fold by 2020, to reach a value of 250 billion euros. (DWS Go Certificates, Global Clean Technologies TR Index Certificate, Certificate Information)

The political framework in Germany is also encouraging market development. Thanks to the amended Energy Saving Ordinance, buildings' permissible energy needs are now restricted. In addition, from 2009 the use of renewable energies in new buildings is set to become obligatory. By 2020 the proportion of renewable energies being used to heat buildings is to be increased to 14 percent. In the same year, carbon dioxide emissions are to be reduced by 37 percent in comparison with 1990. With these moves, of the participants at the World Climate Conference in Bali, the federal government has set itself the most ambitious targets. The government has also stated its goal that, only a decade later, 45 percent of Germany's electricity will be generated from renewable energy sources.

**Sustainable action: a tradition at HOCHTIEF**

HOCHTIEF did not only start becoming involved with sustainability and environmental protection since the subject of climate change has become a matter of public interest. The company has a longstanding tradition of sustainable action which is anchored firmly both in the Group's vision and its guiding principles. Every day HOCHTIEF's services reach millions of people. That is why, for each project, HOCHTIEF willingly takes up the challenge of finding individual, sustainable solutions.

Page 5 of 5

The company has been pursuing an active environment and sustainability management system since the early 1990s. In 2001, HOCHTIEF issued its first Environmental and Sustainability Report, and this is now published every two years. As the only construction company in the German-speaking region to produce such a document, HOCHTIEF is still a pioneer within the industry. In 2007, a coordination office for Corporate Social Responsibility was set up. By fulfilling the extensive and demanding prerequisites of sustainable and responsible action, the Group is also the only German construction company to have earned a listing in the Dow Jones Sustainability Indexes.

Further information: [www.hochtief.com/sustainability](http://www.hochtief.com/sustainability)

**HOCHTIEF** is one of the leading international providers of construction-related services. With more than 66,000 employees and a sales volume of EUR 18.17 billion in FY 2009, the company is represented in all the world's major markets. The Group's service offering in the fields of development, construction, services, concessions and operation covers the entire life cycle of infrastructure projects, real estate and facilities. In the USA, the biggest construction market in the world, HOCHTIEF is the No. 1 general builder via its subsidiary Turner and, with Group company Flatiron, ranks among the most important players in the field of transportation infrastructure construction. With its subsidiary Leighton (HOCHTIEF share around 55 percent), the Group is market leader in Australia. Because of its engagement for sustainability, HOCHTIEF has been listed in the Dow Jones Sustainability Indexes since 2006. Further information is available at [www.hochtief.com/press](http://www.hochtief.com/press).