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Press Information

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Hydro Power at a Glance

- Hydro power is one of the most researched, most highly developed regenerative forms of energy. Everywhere in the world, hydro power stations are operating reliably, safely and without contaminating the atmosphere.

- Approximately 20% of the energy generated worldwide originates from hydro power plants. As a result, hydro power is currently the only renewable energy source which makes a significant contribution to the world's overall power generation. It is unrealistic to believe that wind, sun or biomass power stations will be able to catch up with these output figures in the foreseeable future and take on a similar role.

- Countries such as China or India will have to install enormous power station capacities over the next few years, in order to be able to provide the energy required for the economic development of these countries. For this, the application of hydro power is inevitable. An example: the Three Gorges hydro power station currently under construction at the Yangtze River will, after completion in 2009, be the world's largest hydro power station with an output of approximately 18,200 MW – and, with its output, cover just a little more than the additional annual requirement of China. In fact, a further decline of hydro power energy within the worldwide energy mix would cast a further shadow on the already unpleasant perspectives regarding a reduction of the worldwide emissions of carbon dioxide.

- Regarding CO_2 emissions, the advantages of hydro power compared to thermal power generation are obvious. However, also in comparison to other regenerative energy sources, hydro power is superior. The ratio of energy gained to energy spent for construction and operation is much more favorable for hydro power stations than with all other forms of regenerative energy creation. For pump storage plants it is at over 250:1, for river power stations it is over 170:1. Smaller wind energy plants have a ratio of approximately 30:1, and photo voltaic plants lie between 3:1 and 10:1.

- Modern turbines have efficiencies of over 90% and are therefore more effective than any other kind of energy generation.

- Apart from generating electricity, hydro power has additional benefits, such as providing drinking water, supplying water for agricultural irrigation and protecting areas prone to flooding.

- At present, clear political signals “Pro Hydro Power” that are crucial for the further promotion of this environmentally friendly source of energy generation, are nowhere to be seen. On the contrary: in Germany, new legislation such as the “Renewable Energy Law (EEG)” is aggravating the framework conditions for hydro power in competition to other forms of energy.

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