



## Traditional Weather Products

### Risk Solutions

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You can't avoid the weather, but with our expert knowledge you can lessen the financial impact!

The volatility of weather can have a big impact on a company's profits. World-wide, the recent past has shown that unfavourable weather conditions are tending to become more and more frequent. This can be observed over short time scales as well as in seasonal periods such as exceptionally mild winters or cool summers. Munich Re offers solutions tailored to your weather risks.

### Your weather-related risks

#### Winter

Depending on your gas procurement strategy, the following risks may arise in winter:

- Mild winter seasons reduce the demand for heating, which results in lower gas sales. As temperature and gas market prices are negatively correlated, selling gas already purchased will tend to generate losses on average.
- On the other hand, extremely cold days in winter may require additional spot purchases involving high costs.

Regions relying predominantly on electricity for heating bear a similar risk in terms of electricity sales.

#### Summer

The following risks may arise in regions with mainly hot summers:

- Cooler summers than expected reduce demand for cooling, resulting in lower power consumption. Low demand will lead to low spot prices on average, causing an expected drop in power sales.
- On extremely hot days, additional spot power purchase may be required, involving high costs.

## Our products covering these risks

Structures	Indices	Pay-off
<b>Plain vanilla</b> - Call - Put - Swap (also zero-cost)	<b>To cover seasonal, accumulating risks</b> - HDD (Heating Degree Days) - CDD (Cooling Degree Days) - CAT (Cumulative Average Temperature)	<b>Monetary</b> - Currency of your choice
<b>Combined structures</b> - Collar (also zero-cost) - Straddle - Strangle	<b>To cover critical days</b> - Critical days where temperature "too high" - Critical days where temperature "too low"	<b>Dependent on commodity prices</b> - We may also offer a pay-off based on commodity prices

## An easy example

An accumulating warm winter risk can be covered with a call option on Cumulative Average Temperature (CAT). If the CAT realised in the risk period exceeds the strike, the option pays out an agreed amount (tick size) per CAT, up to a limit.

Strikes, limits and tick size will be set to match your company's risk, taking into account your individual risk appetite.



Contact us to find out more about this or more complex examples.

## Your benefits

- **Weatherproof your company**  
Based upon a detailed analysis of your weather exposure and your risk appetite, we will create a tailor-made solution to minimise your weather-related basis risk. Thus, your company's results will be less exposed to unfavourable weather.
- **Save costs in project financing and stabilise your balance sheet**  
A weather hedge will reduce your downside risk and stabilise your balance sheet, making your projects more attractive for investors.
- **Concentrate on your core competences through capital relief**  
Our sound weather risk management provides security and risk capital relief. This allows you to concentrate on your core competences and new projects!

Benefit from our weather expertise and worldwide experience, and contact us to discuss your specific needs.

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