



Swiss Re
Corporate Solutions

Solutions for managing weather risks



**Environmental
Finance
Deals of the Year Awards
Winner**

Unpredictable weather can create adverse effects on the revenue and profitability of your company. The Weather team of Swiss Re Corporate Solutions offers tailor-made, structured weather insurance and derivative-based solutions that protect your earnings against such risk.

Our business

With the growth in the weather risk management industry over the last decade, more companies are realising that it pays to manage weather-related risk. The Weather team of Swiss Re Corporate Solutions provides customised weather and weather-contingent commodity price solutions that protect your company's earnings against adverse weather. These solutions can be insurance, reinsurance or derivative-based, and depend solely upon your specific requirements.

A selection of industries we serve is highlighted with the examples below:

- **Power/Energy**
Mild winters/cool summers diminish consumer demand for heating/cooling and erode the profit margins for utility companies.
- **Agricultural**
A Florida citrus farmer worries about freeze risk in January; an unexpected hard freeze could wipe out the farmer's entire crop and livelihood.
- **Tourism (hotel, ski resorts, beach)**
Ski resorts depend on adequate snowfall during the winter. Warm, dry winters result in lower attendance and increased costs from snow-making.
- **Construction**
Periods of abnormally hot, cold, or rainy weather inhibit progress on a construction project, resulting in missed deadlines, increased costs, lower labor efficiency and work stoppage.

■ Food & Beverage

A brewer has lower-than-expected earnings as a cool, wet, summer triggers lackluster demand during the most lucrative sales period of the year.

■ Mining

Heavy rains can force mining pit pumps to shut down and result in lower-grade material extracted from mining operations.

■ Retail

A cold, wet summer results in decreased store traffic and lower-than-expected sales of summer apparel, including shorts, tank tops and swimsuits.

■ Aviation

Flight delays are costly for airlines, airports and passengers. Delays lead to increased fuel consumption, crew time and the need for additional ground personnel. For passengers, airline delays can trigger a loss of wages, productivity and goodwill.

Our solutions

To mitigate the financial consequences of weather-related effects on your business, the Weather team of Swiss Re Corporate Solutions can provide two types of customised weather solutions specifically tailored to your requirements: (i) volume-related solutions and (ii) volume and commodity price-related solutions.

Volume-related solutions are based on cumulative weather indices over a specified calculation period. These hedges can be structured as insurance contracts, swaps, floors, caps, collars, etc.

Example

A utility company wants to hedge against a warm winter and chooses Heating Degree Days (HDD) as its weather index for a put structure. The tick is set to match the company's incremental revenue per HDD, as temperature is the main variable driving natural gas demand. The strike is chosen to reduce the company's downside risk related to a drop in energy sales volume to a level commensurate with its risk appetite.

Volume and commodity price-related (quanto) solutions

are based on both cumulative weather indices, and commodity prices over a specified calculation period. Also known as quanto or quantity-adjusted options, these multi-triggered hedges allow for a variable payout per unit of the underlying weather index.

Example

In the above HDD structure, the fixed tick amount is replaced with a variable natural gas price index reflecting the actual value of the drop in energy sales volume during a warm winter. The structure of this solution can be tailored to the specific needs of a company reducing its basis risk. Swiss Re Corporate Solutions offers the full range of weather indices, in combination with various commodity price risks (electricity, natural gas, heating oil and propane), across a wide variety of hedging structures.

Swiss Re Corporate Solutions offers innovative, high-quality insurance capacity to mid-sized and large multinational corporations across the globe. Our offerings range from standard risk transfer covers and multi-line programmes, to highly customised solutions tailored to the needs of our clients. Swiss Re Corporate Solutions serves customers from over 50 offices worldwide and is backed by the financial strength of the Swiss Re Group. For more information about Swiss Re Corporate Solutions, please visit corporatesolutions.swissre.com or follow us on Twitter @SwissRe_CS.

Our weather solutions

Products <ul style="list-style-type: none">■ Volume risk solutions using pure weather indexes■ Combined volume and price risk (quanto) solutions	Instruments <ul style="list-style-type: none">■ Options: Put spread, Call spread, Compound option, Quanto structures■ Combinations: Collar, Strangle, Straddle■ Swaps■ Insurance structures
Indices <ul style="list-style-type: none">■ Temperature-based indices: Heating/Cooling Degree Day structures (HDD/CDD), Cumulative Average Temperature (CAT), critical days■ Precipitation-based indices: aggregate precipitation, river flow, snow fall/snow depth, critical days■ Wind-based indices: average wind speed, critical days■ Solar Irradiance-based indices: average irradiance■ Multi-index: combinations of above■ Agricultural yield-based indices to protect crop yield and grain revenue	Our competitive advantage <ul style="list-style-type: none">■ Products covering a complete array of weather variables and commodity prices■ Large risk appetite to match significant exposure needs■ World-wide presence and execution capabilities

Our team

Our Weather & Energy underwriters have an average of nearly 9 years of experience in structuring solutions for customers across the globe. Operating from our offices in Houston, London, New York, Sydney and Zurich, the team draws upon the expertise of members with deep knowledge of energy and emissions markets. The Weather & Energy team is part of the Environmental and Commodity Markets department of Swiss Re Corporate Solutions.

Contact us today to learn more

For more information about the Weather & Energy team and the wide array of innovative services and solutions we can offer, please contact:

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