

Wind power generation protection

Innovative weather risk transfer solutions for all industry sectors

Munich Re is a market leader in the modelling, pricing and trading of weather derivatives. These market-based **bespoke solutions** compensate for our clients' weather-related losses if the realised weather outcome falls outside an established range.

Your challenge

- Your **business performance** is negatively impacted by abnormal deviations in wind power generation
- Seasonally low wind outputs are a challenge for your business. You would like to **protect yourself** against volatile or unfavourable scenarios

Use case

- A wind energy producer with several wind farms in Germany
- Low wind power production causes lower than expected revenues while high wind scenarios result in **overperformance**
- A **swap** between low and high wind outputs is sought

Solution

- A **suitable weather** index is defined based on a third-party wind power production index
- A **derivative structure** is designed to progressively pay as wind speed falls below a threshold, referred to as the strike, in exchange for a payoff to Munich Re in case of high wind

Example of product definition and associated performance

Costless swap on wind power generation

Index
Speedwell wind power generation index

Strike
On request (W_{Strike})

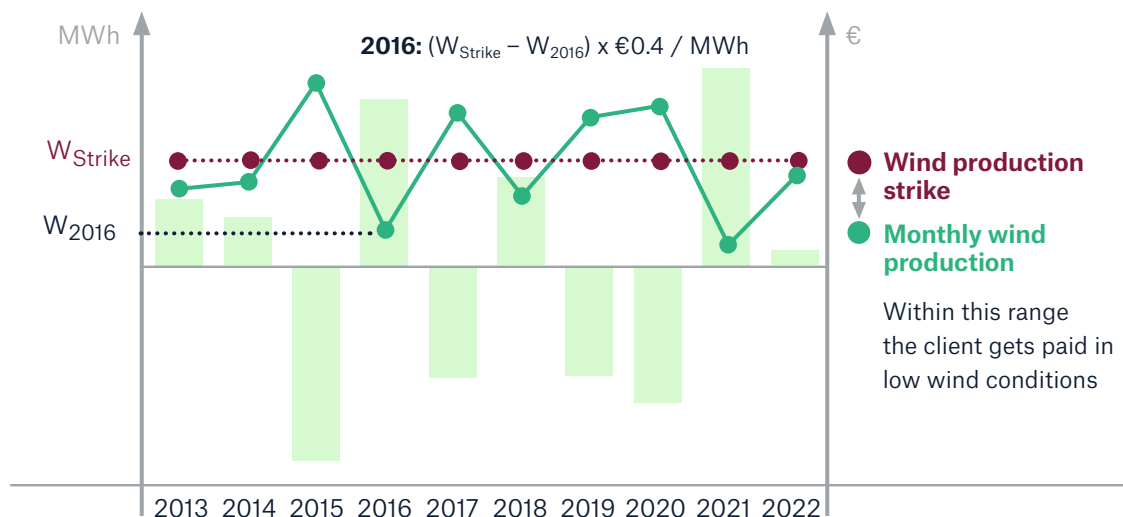
Risk
Too low

Location
Germany

Risk period
Annual (Jan - Dec)

Notional
€0.40 / MWh





Premium
0



When the index falls below the strike, the client receives a payout. The level of the payout is equal to the difference between the strike and the index, multiplied by the agreed notional.


We offer a range of bespoke weather-contingent risk management solutions

1 Weather perils

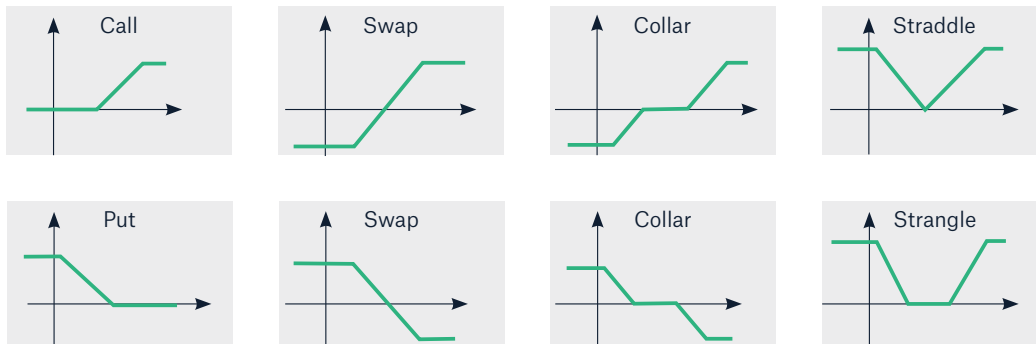
<p>Wind</p> <ul style="list-style-type: none"> - Wind speed - Wind power generation - Wind direction 		<p>Solar</p> <ul style="list-style-type: none"> - Hours of sun - Solar irradiation - Solar power generation 		<p>Temperature</p> <ul style="list-style-type: none"> - Avg. / Min. / Max. temperatures - Heating or Cooling Degree Days (HDD, CDD) - Sigmoid function for energy demand 		<p>Water</p> <ul style="list-style-type: none"> - River height - Streamflow - Water power generation 	
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Other
Contact us about any weather-related risk you are exposed to.

2 Where

<p>Global coverage</p> <ul style="list-style-type: none"> - Weather stations - Lat./Long. coordinates 	<ul style="list-style-type: none"> - Speedwell indices - Third-party data feeds 	
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3 Select and customise the structure suitable for your business



Contact



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