Swiss Re
Corporate Solutions

Electricity Price & Outage Solutions

Environmental Finance
Deals of the Year Awards Winner

2016
Managing power price volatility is often a challenging task, and unexpected outages create problems even in less volatile markets. An unplanned outage which leaves a power generator short may inevitably lead to losses – either from the purchase of an offsetting position in a high-cost spot market or from the opportunity cost of lost generation in a favorable market. As such losses have proven significant and painful, no counterparty with generation exposure should ignore the risk.

In Europe, for example, generation margins have become more volatile in recent years (see chart 1), following those in other energy markets. Commodity markets can hedge pure price risk very effectively, but what if the exposure is triggered by an unexpected outage?

Our solution
Power producers can manage that risk through Swiss Re Corporate Solutions’ Electricity Price & Outage (ELPRO) cover, which compensates them for output lost from unplanned outages based on market conditions at the time of the loss.

ELPRO competes very effectively with the costs of retaining the risk; utilities that choose to keep this exposure consistently overlook the real costs of their strategy:
- Hedging by owning extra reserves ties up capital and does not optimize the use of the generation capacity
- Hedging by counting on market reserves to mitigate the cost of buying replacement power is speculative exposure to volatility risk

What kinds of clients are using ELPRO cover?
To a utility’s insurance risk manager, ELPRO is a tailored form of business interruption protection without property damage requirements to trigger, long waiting periods to retain, or lengthy claim adjustment negotiations. To a trading risk manager, ELPRO is a “just in time” call option on a power price or spread priced at a discount reflecting the contingent nature of the trigger event.

Some examples of how ELPRO is used by power producers and traders:
- A European power producer wants to take operating risk out of a business unit’s operating profits – ELPRO guarantees the margin even if the plants cannot operate as planned
- In the US, an ERCOT power trader is offered an attractive discount from a producer who wants to sell without guaranteeing availability from a particular unit – ELPRO backs up the plant’s production to enable a successful deal
- An Australian power producer wants to fully contract generating capacity for a season to take advantage of high medium-term prices – ELPRO hedges the risk of being short in a rising market if an outage occurs

Chart 1: Margin volatility is growing
Dark spreads in the UK and Germany between January 2011 and March 2013

Source: Bloomberg
How does ELPRO work?
Imagine a sudden outage or de-rating. If power prices are benign, the loss may be very modest. However, if a power outage occurs at the same time as prices are spiking, then producers could be exposed to substantial losses which can accumulate quickly. The 49-day outage shown below (see chart 2) would cost the producer EUR 2.3 mn in lost profit given the spreads prevailing at the time.

With ELPRO, the insured producer is paid the total of the lost production times the prices – or spreads – that were in place at the time of the outage. Subject to the pre-agreed limits of the contract, payment continues until the outage is over.

ELPRO cover is underwritten for each deal’s own risk, instead of priced across a pool of loss experience, like insurance. Therefore, lower risk means lower premium.

Finally, the claims process is fast and efficient and the payout is prompt, since settlement formulas are pre-agreed.

Features of our ELPRO cover
- Dual trigger volume and price protection
- Product tailored to specific client needs
- No physical damage required
- Can cover for risks of power, other commodities, generation (e.g. spark and dark) margins
- Fast and transparent index-based loss settlement
- “Buys down” gap between start of loss event and business interruption inception

Our team
Operating from our offices in Houston, London, New York, Sydney and Zurich, our highly-skilled and experienced team designs ELPRO cover to best fit any client’s situation. Our dedicated underwriters have structured solutions for over 200 GW of power generation across the globe.

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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Chart 2: Outages are expensive
Potential profit margin losses in 49-day outage

<table>
<thead>
<tr>
<th>Unplanned outage</th>
<th>Lost profit</th>
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<tbody>
<tr>
<td>50</td>
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UK Dark Spread in EUR

<table>
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<tr>
<th>Lost production in MWh</th>
<th>Spread in EUR</th>
<th>Payment in EUR</th>
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</thead>
<tbody>
<tr>
<td>Outage day</td>
<td>4 800</td>
<td>20</td>
</tr>
<tr>
<td>Outage day</td>
<td>4 800</td>
<td>24</td>
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</tr>
<tr>
<td>Outage day</td>
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</tr>
</tbody>
</table>

Based on an ELPRO setting on a dark spread with strike of zero

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.

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