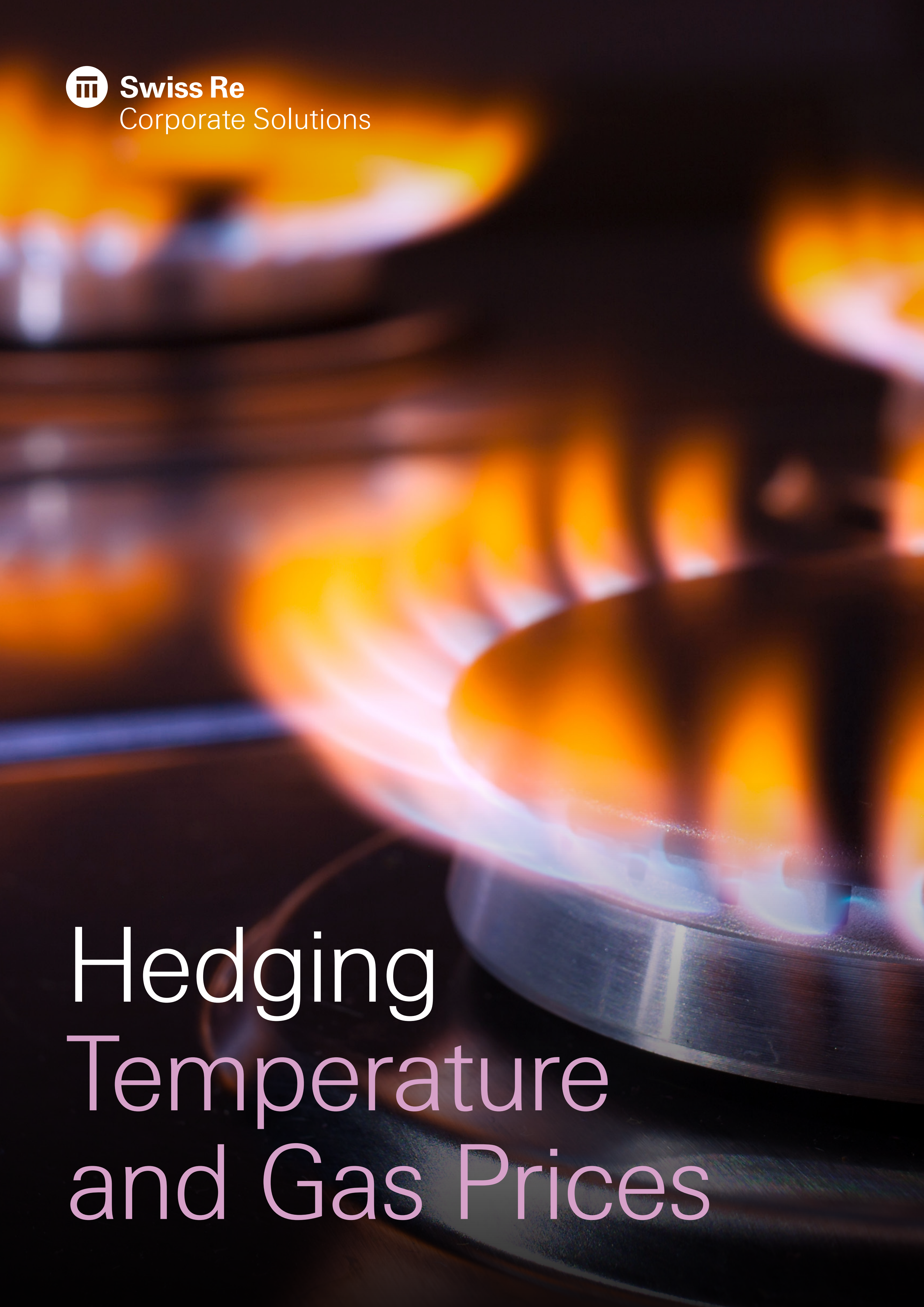
Swiss Re
Corporate Solutions



Hedging Temperature and Gas Prices

Exposure and application

Gas retailers face both temperature and commodity price risk: temperature drives demand and gas prices drive margins

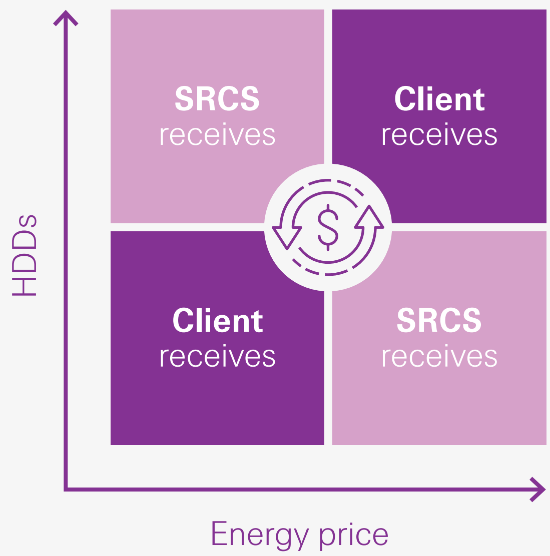
Since temperature is unpredictable, risk managers must guess when they put price hedging in place – most hedge to a normal level of demand

Even modest fluctuations around those "normal" volumes play havoc with gas price hedges

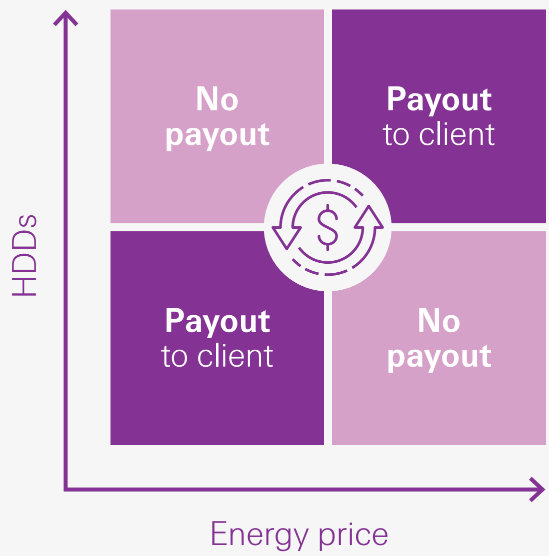
Financial index products compete very effectively with other ways to manage this risk (active delta hedging, storage, flex in gas contracts)

Structure

Swap payout mechanics



Option payout mechanics



Notional terms

Product	**Temperature / gas swap**
Location	London Heathrow Airport (LHR)
Index	Heating Degree Days (HDDs): Difference between a day's average temperature and 18, if negative. Examples: If average temperature is superior or equal to 18° C, then HDD count for that day is 0. If average temperature is 11, then HDD count for that day is 7. Gas index (Price) = NBP day-ahead price
Strike	Set by client according to hedging strategy
Payout	MDaily Payout = (HDDActual – HDDStrike) x (PriceActual – PriceStrike) x Notional Volume
Tick or notional	Can be fixed or shaped by gas demand
Term	November to March

Case study

Client	UK household gas retail cooperative
Problem	Delta hedging strategy was not effective in smoothing margins, and carried high transaction costs
Solution	Gas/temperature swap to offset variability in underlying operating profits
Location	12 locations weighted to match load and service area
Result	Operating profits were protected, giving business unit much more earnings stability

Swiss Re Corporate Solutions
Mythenquai 50/60
P.O.Box
8022 Zurich
Switzerland

Telephone +41 43 285 2121
Email: corporate_solutions@swissre.com
Web: corporatesolutions.swissre.com

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:

Rishu Ranjan
Head ECM & ART Underwriting
+1 212 317 5226
Rishu_Ranjan@swissre.com