Financing wind projects in changing subsidy environment
Total return insurance as solution?
Thomas Kammann, Managing Director
Energy Risk Solutions

Abstract

• Traditional Finance Structure of Wind Projects: 80% Debt + 20% Equity AND investors want to make sure to get their money back.
• Most important influence factor for cash flow is wind speed with its well known natural volatility.
• This creates uncertainty about cash flow from power sales and thus a very conservative evaluation approach of lenders.

MAIN CAUSES for basis risk are
• Turbine availabilities (see below).
• Variations in power curves through production tolerances.
• Quality of Operation and Maintenance.
• Wind direction and turbulences.
• Interdependencies between single causes, e.g. availabilities and maintenance policy.

MARKET DEVELOPMENT
• More and more markets transfer their fixed feed-in tariffs into more market oriented compensation schemes.
• With the EEG 2016 Germany establishes an annual auction system with limited maximum capacity and a system of reduced regional different subsidy factors.
• In a much more competitive environment basis risk becomes even more important.
• As it directly affects the cash flow and the cushion of high feed-in tariffs is diminished investors will become even more cautious.

CONCLUSION
• Financing wind projects leaves still room for optimization, ideally with a total return insurance.
• The key is in the hand of risk takers whom are able and prepared to take the whole spectrum of risk and offer ‘easy to understand’ solutions to the lender and investor community.
• In a market environment with competition between projects the demand for such a product will increase significantly.

TOTAL BASIS RISK MANAGEMENT
• Basis risk should be transferred to a risk taker who understands all its parts individually as well as in total.
• The reinsurance industry owns wind assets, has operators under contract, insures wind parks against weather and all other perils and also has a deep understanding of finance.

Results

THE SOLUTION
• Energy Risk Solutions together with Munich Re Group currently develops a total return hedge for the global wind power industry.
• This hedge will create a win / win situation as it transfers the risk to the one who is able to handle it and allows others to focus on their core competences.
• Example for a production put term sheet:

BASIS RISK
• Finally all risk which is not covered elsewhere is with the investor.
• Even in case investor tries to hedge the largest remaining risk (weather) the current hedging tools do not allow basis risk removal.
• As wind power index derivatives already reduce the margin whilst providing only a proxy hedge many investors shy away from using them.
• An index trying to consider all single basis risk parameters would be indefinitely complex and not accepted by the investor community.

Objectives

BASIS RISK is the risk that the WPI deviates from the actual measured production and the hedge does not work at it is expected to.

MAIN CAUSES for basis risk are
• Turbine availabilities (see below).
• Variations in power curves through production tolerances.
• Quality of Operation and Maintenance.
• Wind direction and turbulences.
• Interdependencies between single causes, e.g. availabilities and maintenance policy.

MARKET DEVELOPMENT
• More and more markets transfer their fixed feed-in tariffs into more market oriented compensation schemes.
• With the EEG 2016 Germany establishes an annual auction system with limited maximum capacity and a system of reduced regional different subsidy factors.
• In a much more competitive environment basis risk becomes even more important.
• As it directly affects the cash flow and the cushion of high feed-in tariffs is diminished investors will become even more cautious.

CONCLUSION
• Financing wind projects leaves still room for optimization, ideally with a total return insurance.
• The key is in the hand of risk takers whom are able and prepared to take the whole spectrum of risk and offer ‘easy to understand’ solutions to the lender and investor community.
• In a market environment with competition between projects the demand for such a product will increase significantly.

TOTAL BASIS RISK MANAGEMENT
• Basis risk should be transferred to a risk taker who understands all its parts individually as well as in total.
• The reinsurance industry owns wind assets, has operators under contract, insures wind parks against weather and all other perils and also has a deep understanding of finance.

Results

THE SOLUTION
• Energy Risk Solutions together with Munich Re Group currently develops a total return hedge for the global wind power industry.
• This hedge will create a win / win situation as it transfers the risk to the one who is able to handle it and allows others to focus on their core competences.
• Example for a production put term sheet:

BASIS RISK
• Finally all risk which is not covered elsewhere is with the investor.
• Even in case investor tries to hedge the largest remaining risk (weather) the current hedging tools do not allow basis risk removal.
• As wind power index derivatives already reduce the margin whilst providing only a proxy hedge many investors shy away from using them.
• An index trying to consider all single basis risk parameters would be indefinitely complex and not accepted by the investor community.

Objectives

BASIS RISK is the risk that the WPI deviates from the actual measured production and the hedge does not work at it is expected to.