

3RD ANNUAL ENERGY PORTFOLIO OPTIMISATION & ELECTRICITY PRICE FORECASTING FORUM

5TH – 6TH APRIL 2017 DÜSSELDORF, GERMANY



GEORG-GLOCK-STRASSE 20, 40474

DÜSSELDORF

GERMANY

5th – 6th April 2017 | Düsseldorf, Germany

INTRODUCTION TO THE FORUM:

CORPORATE PARITY

is a well-established professional conference and event organizer with European base, and with an ambitious global growth strategy. We work closely with our clients in organizing international conferences, bringing together experts, academics and practitioners from a wide range of disciplines to discuss options and strategies in their individual held. Our international conferences aim to provide our participants with a positive impact and help them achieve efficiency in their daily responsibilities while overcoming any possible challenges.

OUR MISSION

With our exceptional market research, customised ideas and conferences, we aim to empower our clients with up-to-date information for future growth and development within their respective industries. We intend to achieve this objective with our tailor-made and industry-driven values.

OUR VISION

To establish long term relationships within various industries by providing quality services that meet and exceed our clients' demands.

DEAR GUEST DELEGATE,

Everyone at Corporate Parity would like to sincerely thank you for your participation at the

3rd Annual Energy Portfolio Optimization & Electricity Price Forecastion Forum To help you get the most out of the conference, we have created an area on our webapp where you can find all conference presentations.

The link to this webapp is: https://my.eventbuizz.com/event/3rd-annual-energy-portfolio-optimisation---electricity-price-forecasting-forum

THERE YOU WILL BE ABLE TO SEE:

- Chat with participants or ask your questions to the whole audience
- Vote or reply on questions from the speakers
- Give your feedback
- Current program of the event
- · List of attendees
- Presentations

Make your attendance at our summit easy and informative. Just log in with your email and enjoy all benefits of attending!

Warm Regards, Corporate Parity

The link to the webapp:



5th – 6th April 2017 | Düsseldorf, Germany

08:30 Morning Coffee & Registration

08:50 Opening Remarks from Chair

og:oo Case Study

CONSUMER INTEROPERABILITY FROM THE ENERGY MIX PROVIDED BY THE UTILITIES AND PETROLEUM COMPANIES

- · The Market the tipping point
- The Goal Consumer Choice and Interoperability
- The Storage Battery
- The Utilities and the Petroleum companies
- The XTN Datahub the technology behind the disruption
- The Next step

09:30 Case Study



KYOS

N GROUP

Bjørn Bekkevold

Founder & CEO

XTN Group

Cyriel de Jong
Founder and Director
KYOS

EVALUATION OF DYNAMIC HEDGING STRATEGIES

- Earnings-at-Risk applied to energy portfolios
- Different approaches for the calculation of dynamic delta hedges
- Transforming hedges to tradable contracts
- Monte Carlo analysis versus back tests
- · Case study results: gas storage and power plants

10:10 Case Study



Rainer Döttling Principal Quant Analyst Uniper

PRICING AND HEDGING OF WEATHER INDUCED RISKS

- Assessing volumetric risks in weather contingent exposures
- Modelling the co-dependency of electricity or gas prices on weather
- Risk adjusted pricing and optimal hedging

10:50 Networking and Refreshment Break

11:20 Case Study

BUILDING A ROBUST ERM CULTURE: FROM RISK CONTROL TO RISK MANAGEMENT



• The benefit of having a proactive ERM

· ERM, from silos to portfolio

Petter Kapstad Senior Specialist Risk Management **Statoil**

- How to capture the financial benefit of a portfolio approach
 How to integrate operational and insurable risks in ERM
- The importance of strategic risks and how to deal with it

12:00 Case Study

CAPTURING THE EFFECT OF SCARCITY PRICING IN SHORT TERM FUNDAMENTAL PRICE FORECASTS

THOMSON REUTERS

Thomson Reuters Point Carbon

• A fundamental approach to short term price forecasting in Europe

David Chantelou

• Marginal cost and scarcity value

Head of Power Modelling

Case study: Forecasting day-ahead prices in the GB market

12:40 Lunch

5th – 6th April 2017 | Düsseldorf, Germany

13.40

Workshop

INTRODUCTION TO R: FORECASTING AND TRADING



Lasse Thorst Head of Analysis Energi Danmark A/S

The workshop will give you an overview of what R can do in a trading environment. How you can start do simple and advanced data treatment, showcase an analysis of CWE flows and different price scenarios, and show how to do a simple model and forecasting with price evaluations. Slides and information will be distributed after the workshop.

14:40

Case Study



REVIEW ON NEW METHODS FOR FORECASTING PRICE RISK DISTRIBUTIONS

Derek Bunn

Professor of Decision Sciences

Management Science and Operations **London Business School**

15:20

Case Study



POWER PRICES ON DAY-AHEAD AND INTRADAY ELECTRICITY MARKETS

- Rüdiger Kiesel Chair for Energy Trading and
- **University Duisburg-Essen**
- Factors influencing day-ahead and intraday prices
- Explaining differences in day-ahead and intraday prices
- Modelling intraday trading

16:00

Networking and Refreshment Break

16:30

Case Study



CAPACITY PAYMENT/MARKET MECHANISMS: IMPACT IN ASSET EVALUATION

- EU's IV package on electricity markets: impacts on capacity remuneration mechanisms The Italian case: reliability options are suitable to solve the missing money problem?
- Michele Governatori Institutional & Regul. Affairs
- Director Axpo Italia S.p.a President Italian Energy

Traders and Wholesalers Association (AIGET)

Flexibility vs adequacy: which of the two will get remuneration?

Case Study **17:10**

CAPACITY PAYMENT/MARKET MECHANISMS: IMPACT IN ASSET EVALUATION



Polska Grupa Energetyczna

- Short-term performance
- Modeling competition on the capacity and energy markets
 - Case study: CRM in Poland

Grzegorz Wilinski

Director of Economic Analysis Office

PGE Polska Grupa Energetyczna

Chairman closing remark & End of Conference **17:50**

Networking and Refreshment Dinner 19:00

5th – 6th April 2017 | Düsseldorf, Germany

08:30 Morning Coffee & Registration

08:50 Opening Remarks from Chair

og:oo Case Study

FINDING OF AN EFFICIENT HEDGE STRATEGY ON CORPORATE LEVEL

VATTENFALL 🥌

Henrik Specht
Director Risk Analysis and Deputy

CRO Vattenfall Gmbh

- Identification of hedge strategy alternatives
- Analysis of the corporate financial risk-bearing capability
- Prevention from economically inefficient hedge strategies
- Selection of an efficient hedge strategy according to risk appetite

09:40

Case Study



Paul Edge

Financial modeling - Risk department

EDP – ENERGIAS DE PORTUGAL SA

INTEGRATED MODELLING AND HEDGING OF WEATHER UNCERTAINTIES, ELECTRICITY AND FUEL PRICE RISKS

- Effects of weather on Portuguese electricity prices
- The role of fuel and other prices
- · Volume characteristics and cashflow projections
- Optimisation of hedging at a corporate levelexposure
- · Quanto Options Temperature contingent Power and Gas Options

10:20

Networking and Refreshment Break

10:50

Case Study



BPASS-THROUGH-FACTORS: QUICK SENSITIVITY ANALYSIS ON ELECTRICITY MARKETS

A A

Strategic market analysis with fundamental market modelling

Tobias Zimmermann Senior Energy Market Analyst Concept of a Pass-Through-Factor Model

Senior Energy Market Analyst

How PTF Model complements market analysis capabilities

Commercial Analysis & Global Strategies RWE Supply & Trading

GmbH

11:30 Case Study

WEATHER RISKS FORECASTING



- Eric Stein Senior Meteorologist Statkraft
- · Why Energy Utilities Need Meteorology
- Market Aspects of Weather Prediction
- Seasonal Weather Analysis: A New Tool
- Weather Derivatives

12:10

Lunch

5th – 6th April 2017 | Düsseldorf, Germany

13:30

Case Study



GERMAN POWER PRICES IN A CHANGING MARKET

- Influence on price distributions
- **Matthias Klapper** Senior Market Analyst
- Vattenfall
- Rapid changing Fundamental drivers

Price structures: Hourly and quarter-hourly

14.10

Panel Discussion

THE ROLE OF SPECULATION IN THE DETERMINATION OF ENERGY PRICES AND **CREATING LIQUIDITY**

• The role of trading companies/speculators as intermediaries



Paul Edge

Financial modeling - Risk department **EDP - ENERGIAS DE PORTUGAL**



Axpo Italia S.p.a

Michele Governatori Institutional & Regul. Affairs Director



Reik Börger

Commercial Asset Optimisation - Head of Fundamental Hedging **RWE**



David Chantelou

Head of Power Modelling **Thomson Reuters Point Carbon**

15:00

SA

Case Study



ELABORATION OF SCENARIOS USING WIND INDEX FUTURES FOR HEDGING AND SPECULATIVE PURPOSES



Konstantin Lenz Country Manager Commodities

NASDAQ OMX

- Introduction to wind index futures
- Hedging wind production
- Other Hedging Scenarios
- Speculative Trading

15:40

Q&A

16:00

End of conference



5th – 6th April 2017 | Düsseldorf, Germany



RAINER DÖTTLING - PRINCIPAL QUANTITATIVE ANALYST, UNIPER GLOBAL COMMODITIES SE

Rainer Döttling is a Principal Quantitative Analyst at Uniper Global Commodities SE with more than 15 years of experience in risk and financial modelling.

In his career he has held various managerial roles in the E.ON group amongst others leading an international team of quantitative analysts.

His main focus area is the development of valuation and risk assessment methods for Uniper's financial, commodity and asset portfolio. This includes the incorporation of fundamental risk drivers such as wind and temperature influencing customer offtake, weather derivatives, gas storage value and power plant effectiveness.



BJORN BEKKEVOLD - FOUNDER & CEO, XTN GROUP

Founder & CEO of the XTN Group, Strategisk Forretningsutvikling AS, Solgryten AS • Working with Demand Side Management in the Energy Business One of five that founded the oil & gas division in Norsk Hydro A professional engineer from Purdue University, Ind., USA. A serial entrepreneur previously founded companies within: (1) Proactive Intelligent Video Surveillance to Railways and Airports in Norway; (2) Games on Demand to consumers in Norway, Sweden, Denmark and Germany. Matured through the management ladder of large companies like Exxon, Norsk Hydro. A major in the Norwegian Armed Forces having served as an Intelligence Officer / Liaisson Officer to the Prime Minister's Office and/or Chief of Police having held the highest security clearance.



PETTER KAPSTAD - SENIOR SPECIALIST RISK MANAGEMENT, STATOIL

Petter has 25 years experiences within risk management and trading from international banks and as a consultant. He was regional director in GARP(Global Association of Risk Professionals). Petter Kapstad joined Statoil in 1994 as Financial Controller. and since 1996 he has been responsible for building up Statoils Corporate Risk Management which he was heading until 2014, when he moved over to Statoils commodity trading as Senior Specialist Risk Management. He has worked as Court Pointed expert judge within finance. The book "Implementing Enterprise Risk Management" written by professor Betty Simkins, describes his work in Statoil. Statoil was early rewarded by University of St. Gallen for their work to develop sustainable ERM models, including operational and insurable risks as well The theory and the practical development has been presented on a number of international conferences. He has also contributed as writer and co-writer for risk publications given out from IIA Norway.



LASSE THORST - HEAD OF ANALYSIS, ENERGI DANMARK

Head of Analytics my main responsibilities is to provide data, analytics and forecasts for our trading department. The department consists of different trading decks, that trade 24/7, 365 days a year. This means we have to ensure data is always there, it is the newest data, and the forecast and models have to be thoroughly back tested and validated, before they go live in a trading environment. I work daily with SQL and R and delivery large amounts of data and analytics via a range of tools such as Excel and dynamic html solutions such as Shiny.

I finished a master's degree in economics and management from Aarhus University in 2012, with focus on macroeconomics and behavioral economics. Afterwards started as a cross border trader for NEAS Energy with focus on Germany and adjacent markets. After NEAS I joined Energy Danmark A/S as a Quantitative Analyst, and have been here for 4 years.



GRZEGORZ WILINSKI - DIRECTOR OF ECONOMIC ANALYSIS OFFICE, PGE POLSKA GRUPA ENERGETYCZNA

Grzegorz is the Director of the Economic Analysis Bureau at PGE Group – largest incumbent power utility in Poland. His main responsibilities are managing short- to long-term fundamental and statistical modeling teams and market data management within corporate data warehouse. Grzegorz has previously held various managerial roles within PGE, including i.a. responsibility for reshaping group-wide financial planning process and rolling out business intelligence solution.

Grzegorz is currently representing PGE as Deputy Head of Markets Committee at PKEE (member of Eurelectric), Deputy Head of Wholesale Markets Group at TOE (member of EFET) and within balancing code development group at TGPE.

5th – 6th April 2017 | Düsseldorf, Germany



DAVID CHANTELOU - HEAD OF POWER MODELLING, THOMSON REUTERS POINT CARBON

David leads power modelling for Thomson Reuters Research and Forecasts. He has worked in the European gas and power sector since 2008. Prior to joining Thomson Reuters in 2014, David was a quantitative analyst for the French utility Direct Energie and worked as a consultant at Pöyry Management Consulting in Oxford. David's area of expertise is energy market modelling, asset valuation, portfolio optimisation and policy analysis.



MICHELE GOVERNATORI - INSTITUTIONAL & REGUL. AFFAIRS DIRECTOR, AXPO ITALIA S.P.A PRESIDENT, ITALIAN ENERGY TRADERS AND WHOLESALERS ASSOCIATION (AIGET)

Michele Governatori, 44, is Director of Public and Regulatory Affairs for Axpo Italia S.p.A. . Before joining the Axpo group in 2004, he has been working for Eni, Edison, and for the Italian state-owned Single Buyer of electricity.

After his BA in Economics at Bocconi University in 1996, he completed the Master in Management of the Energy and Environment Industry of Eni Corporate University.

Since 2013 he is President for the Italian Energy Traders and Wholesalers Association (AIGET).



DR. MATTHIAS KLAPPER - SENIOR ANALYST, MODELLING & ANALYSIS, VATTENFALL EUROPE SALES GMBH

Dr. Matthias Klapper joined Bewag (now Vattenfall) in 2001 and worked in Trading and Sales research teams. Current position is Senior Analyst at Vattenfall Europe Sales. Responsible and involved in many major modelling projects at Vattenfall including customer profiling, risk models, market models, and long term fundamental models for power and gas. Before, he worked in the credit card business for AT&T and Advanta in the United States. Matthias obtained a M.Sc. in Statistics at Iowa State University (USA) in 1995 and PhD in Statistics at University of Dortmund (Germany) in 2000.



PAUL EDGE - FINANCIAL MODELING - RISK DEPARTMENT, EDP - ENERGIAS DE PORTUGAL SA

Paul Edge has over 15 years of experience in Risk Management, initially as an actuarial consultant to pension schemes, then as a quantitative analyst in the treasury of BP and currently as the financial modelling expert in EDP's risk management department. His specialisms include Real Options; Levy processes and Cashflow, Asset & Liability modelling.

He holds a degree in Mathematics from Manchester University, a PhD in Quantitative Finance from Imperial College London and a diploma in actuarial techniques from the Institute of Actuaries.



HENRIK SPECHT - DIRECTOR RISK ANALYSIS AND DEPUTY CRO, RISK MANAGEMENT, VATTENFALL

Henrik responsibilities include the centralized corporate commodity hedging process, the model approval process of valuation and risk models as well as active model development for corporate level risk models. Furthermore the enterprise wide risk management process is in scope for his function, focusing as well on the bottom-up assessment of all risks as well as the link between the corporate risk profile and financial steering of Vattenfall. Prior to this, Henrik has been working in various roles in Energy Trading and Risk Management of Vattenfall Europe and Bewag Energy Trading. He started his working career 18 years ago at the Institute for Energy Economics and Rationale Use of Energy at the University of Stuttgart.



CYRIEL DE JONG - FOUNDER AND DIRECTOR, KYOS

Cyriel de Jong has been working as an advisor for the energy industry since 2001. Until 2006, he combined this with a position at Erasmus University Rotterdam.

For the major companies in Europe, Cyriel has led a great number of projects related to energy market valuation, risk management, trading strategies and investment analysis. He is particularly active in price modelling, financial methodologies to value energy assets and contracts, and in stochastic optimization. Cyriel completed his MSc. in Econometrics at Maastricht University, and finished his Ph.D. on financial derivatives at Erasmus University Rotterdam in 2003.

5th – 6th April 2017 | Düsseldorf, Germany



ERIC STEIN - SENIOR METEOROLOGIST, STATKRAFT

Eric Stein studied meteorology and climatology at the Universities of Bonn, Germany and Seattle, Wa., USA. After working for the commercial weather sector for several years, Eric joined RWE Trading in 2006 - setting-up and heading RWE's meteorology team in Essen, Germany. In 2014 he joined Statkraft Trading in Dusseldorf, Germany in a similar role. Eric has been actively trading in the weather derivative market and his focus today is on weather based cross-commodity trading strategies.



DEREK BUNN - PROFESSOR OF DECISION SCIENCES, LONDON BUSINESS SCHOOL

Professor Derek W. Bunn is the author of over 200 research papers and 10 books in the areas of forecasting, decision analysis and energy economics. As Professor of Decision Sciences at London Business School, he has been the recipient of several professional and industry awards, including the Goodeve Medal, from the UK Operational Research Society. His work has been extensively cited, and translated into more than 6 languages.

Professor Bunn read Natural Sciences at Trinity College, Cambridge University; received a PhD from London Business School; and was subsequently elected CEGB Fellow in Engineering at Oxford University. He has also been a visiting professor at Stanford University in California.



KONSTANTIN LENZ - PROFESSOR OF ENERGY ECONOMICS, THE UNIVERSITY OF APPLIED SCIENCES

Konstantin Lenz is Professor of energy economics at the University of Applied Sciences in Erfurt. He studied power and process engineering at the Berlin University of Technology and started his career in the liberalised energy markets at Electrabel.

As head of the German analysis in the Norwegian Markedskraft group he built up the German operations and developed models and market analysis. Later on he took over the position of a director of portfolio management and trading at Kom-Solution.

Since 2011, Konstantin has worked as an independent consultant on different projects in the German power market focussing on long-term analysis, risk management and trading. Together with NASDAQ Commodities he developed futures on German wind production and the underlying index.



TOBIAS ZIMMERMANN - SENIOR ENERGY MARKET ANALYST COMMERCIAL ANALYSIS & GLOBAL STRATEGIES, RWE SUPPLY & TRADING GMBH



REIK BÖRGER - COMMERCIAL ASSET OPTIMISATION - HEAD OF FUNDAMENTAL HEDGING, RWE

5th – 6th April 2017 | Düsseldorf, Germany



VOTE OF THANKS

Corporate Parity would like to extend a vote of thanks to all those who have contributed in one way or the other to make this summit a success.

We would especially like to show our gratitude to our Chairman, **Bjørn Bekkevold**

who has been fundamental in the preparation of the event from the beginning as well as all our speakers, and of course all the delegates.

We wish you all a safe trip back to your various destinations and we do hope to see you again next year!

Warm regards, Corporate Parity



NEXT EVENT 2018 APRIL

ELECTRICITY PRICE MODELLING & FORECASTING FOR THE EUROPEAN MARKET