

# GIOBARP Global Association of Risk Professionals

# **GARP ERP® Certification Preparation Course**

Examination preparation for Energy Risk Professional certification by the Global Association of Risk Professionals (GARP)



# Milan - Mon 15th - Wed 17th April 2013 London - Wed 24th - Fri 26th April 2013

## HOSTING INSITUTIONS







## A COMPREHENSIVE COURSE ON "PHYSICAL AND FINANCIAL RISK MANAGEMENT" IN PREPARATION FOR THE GARP ERP ® CERTIFICATION EXAM BY THE GLOBAL ASSOCIATION OF RISK PROFESSIONALS (GARP)

## **About the ERP**<sup>®</sup> Program

Get Certified as an Energy Risk Professional (ERP®)

The Energy Risk Professional (ERP®) Program is the first and only designation for global energy professionals. Energisk's Course on "Physical and Financial Risk Management" fully covers the material in accordance with the topics outlined in the 2013 ERP Study Guide, and reflects the learning objectives defined by the GARP's Energy Oversight Committee (EOC). This course will be an excellent preparation for practitioners and professionals planning to take the Energy Risk Professional (ERP®) Exam, with the course being delivered by experts in the energy space. Statistics says that 84% of Certified ERPs ® would prefer to hire a candidate with the ERP ® designation over one without the credential, creating a powerful, elite network.

\*http://www.garp.org/erp/career-benefits.aspx

## A Comprehensive Course on Physical and Financial Energy Risk

Welcome to this new course in Energy and Commodity Finance

## **Summary of the Course**

The course topics covers physical energy assets and operations, financial modelling, and risk management across the entire energy and commodity value chain. All material has been developed in accordance with the topics outlined in the 2013 ERP Study Guide, and reflects the learning objectives defined by the GARP's Energy Oversight Committee (EOC). The content is designed with the objective of preparing participants to be tested on the required knowledge and tools necessary for professionals that manage risk in the energy industry.

## Get Certified as an Energy Risk Professional (ERP®)

This course will be an excellent preparation for practitioners and professionals planning to take the Energy Risk Professional (ERP®) Exam. Statistics indicate that 84% of Certified ERPs <sup>®</sup> would prefer to hire a candidate with the ERP <sup>®</sup> designation over one without the credential, creating a powerful, elite network.\* *http://www.garp.org/erp/career-benefi ts.aspx* 

## **Preparation for the Exam**

The Energy Risk Professional certification Exam is a self-directed study program. For past exams, a majority of candidates report spending between 150 to 300 hours preparing for the exam. We offer this ERP <sup>®</sup> Exam preparation course for candidates who benefit from a more structured and intensive test-preparation program.

## Who should attend?

This course is applicable to mid-office staff such as risk managers and financial analysts wishing to strengthen their skills. It is also suitable for front-office positions including traders and sales requiring to improve their knowledge over the whole value chain of energy and commodity linked products. These key target professionals, as well as back-office employees, may all benefit from a career enhancement perspective.

You can of course attend the course without taking the exam.

#### FAST FACTS

- » Since its inception, ERP <sup>®</sup> registrations have grown 99% year-on-year
- » In 2011, ERP <sup>®</sup> candidates originated from 36 countries and over 450 organizations
- » 163 organizations have been represented by three or more ERP <sup>®</sup> candidates since 2009
- » 94% of those who sat for the November 2011 ERP ® Exam reported that the topics were applicable to their current jobs

## PROGRAM **DAY 1 Financial Risk**

Course leader: Viviana Fanelli

#### **FINANCIAL PRODUCTS** Exam Weight | 20%

- » Forward Contracts
- » Exchange Traded Futures
- » Energy Swaps and Options
- » Energy Options
- » Real Options
- » Commodity Spread Trading

#### **MODELING ENERGY PRICES** Exam Weight | 10%

- » Introduction to Energy Modeling
- » Data Analysis and Essential Statistics
- Spot Price Behavior »
- » Forward Curve Modeling
- » Estimating Price Volatility

## **DAY 2 Financial Risk**

Course leader: Mark Cummins

#### **RISK MANAGEMENT FUNDAMENTALS** Exam Weight | 15%

- » Value-at-Risk and Stress Testing
- » Counterparty Credit Risk
- » Enterprise Risk Management
- » Case Studies in RM Failure

# **Physical Risk** Course leader: Mark Cummins

#### HYDROCARBON RESOURCES Exam Weight | 25%

- » Exploration and Production
- » Crude Oil and Refining
- » Natural Gas, LNG and Shale Gas
- » Coal

# DAY 3 **Physical Risk** Course leader: Alberto Berizzi

## ELECTRICITY

- Exam Weight | 10%
- » Electricity Generation » Hydroelectric Power
- » Nuclear Power
- » Fundamentals of Electricity
- » Distribution and Trading
- » Load Forecasting

#### **RENEWABLE ENERGY** Exam Weight | 10%

- » Economics of Renewable Energy
- » Investment in Renewable Energy
- » Sustainable Energy and Biofuels
- » Current Trends in the Carbon Market
- » Emissions Trading Models

The remaining 10% of Exam Weight are current issues in Energy. Exact references will be distributed during the course.

## **COURSE LEADERS**



#### **Alberto Berizzi** Politecnico di Milano

Alberto Berizzi, PhD, is a Full Professor of Electrical Power Systems at the Department of Energy, Politecnico di Milano. His publication record includes more than 130 articles covering a variety of fields within Electrical Engineering; these range from power quality and security analysis, from short-circuit studies to mathematical problems related to sparsity. Alberto Berizzi is also an active consultant on power systems and head projects with EDF, Edison, ENEL, Siemens, and Terna. He regularly participates to research projects sponsored by the Italian Ministry of Research.



#### **Mark Cummins Dublin City University**

Mark Cummins, PhD, is a Lecturer in Finance at the Dublin City University Business School. He holds a PhD in Quantitative Finance, with specialism in the application of integral transforms and the fast Fourier transform (FFT) for derivatives valuation and risk management. Mark has previous industry experience working as a Quantitative Analyst within the Global Risk function for BP Oil International Ltd., based in London. Primary responsibilities included derivatives and price curve model validation and development, with a global remit across BP's oil, gas, power, commodities and carbon emissions activities.



### Viviana Fanelli University of Bari

Viviana Fanelli, PhD, is a Professor of Finance at the University of Bari "Aldo Moro" and regular Lecturer in Energy Finance at MIP Business School in Milan. She has a Ph.D in Mathematical Methods for Financial and Economic Decisions. Her research interests cover energy finance, commodity finance, interest rate theory and applications, derivative securities pricing, quantitative finance techniques, and innovation diffusion models. She regularly publishes in academic journals, including Nonlinear Analysis RWA and European Journal of Operational Research. Since 2008 she has been appointed as a course leader in the Advanced Program in Energy Finance at MIP.

LANGUAGE Course is delivered in English

**SCHEDULE** Each day 09.00-18.00, including breaks

**REGISTRATION** Process: www.energisk.org

**CONTACTS** E-mail: garpcourse@energisk.org Web: www.energisk.org

## **MULTIPLE REGISTRATION DISCOUNT**

Register two or more people from the same company and receive an additional 10% discount.

## **FEES FOR PROFESSIONALS (\*)**

- » Early Bird € 1479 (before 15 March 2013)
- » Standard Price € 1779
- » Students registered to fulltime programs at hosting institutions € 479

## DOCUMENTATION

Participants receive documentation in a selfcontained and comprehensive manual.

# **PRATICAL INFORMATION**

## **London Course**

**DATES** 24-26 April 2013

**LOCATION** Cass Business School London, United Kingdom

## **ORGANIZING INSTITUTIONS**

Energisk SAS, Paris, in collaboration with Cass Business School, London

## **Milan Course**

**DATES** 15-17 April 2013

**LOCATION** MIP Politecnico di Milano Milan, Italy

## **ORGANIZING INSTITUTIONS**

Energisk SAS, Paris, in collaboration with MIP Politecnico di Milano, Milan, Italy

(\*) FEES FOR PRIVATE INDIVIDUALS: Special tariff (please contact us)

## **ABOUT THE ORGANIZERS**

## **ENERGISK**

Energisk is a consulting and development company in all areas of energy and commodity finance. A team of highly ranked academics and practitioners works around conception and implementation of tailor-made ready-to-use solutions for a variety of problems encompassing real-time risk assessment, risk mitigation, model building, scenario simulation, physical and fi nancial asset valuation. Energisk developed the new striking technology of FloRisk<sup>®</sup> that boosts industrial and financial risk monitoring of energy and multi-commodity positions.

## MIP

For over 30 years, MIP Politecnico di Milano has been recognised as a prestigious business school, attracting graduates interested in a career in business or in public administration. With the Department of Management, Economics and Industrial Engineering has been part of the Politecnico di Milano School of Management since 2003. In 2007, the School of Management received the prestigious EQUIS accreditation. The School of Management was included for the first time in the Financial Times' ratings of top European Business Schools in 2009.

## CASS

An integral part of City University London, Sir John Cass Business School is among the global elite of business schools that hold the gold standard of 'triple-crown' accreditation from the Association to Advance Collegiate Schools of Business (AACSB), the Association of MBAs (AMBA) and the European Quality Improvement System (EQUIS). Consistently ranked amongst the best business schools and programmes in the world which, coupled with an established 40-year reputation for excellence in research and business education, enables Cass to attract some of the best academics, students and businesses worldwide into an exclusive Cass network.

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