



In this newsletter, we focus on challenges in energy risk management and solutions to address these challenges.




Featured modules: the Risk Suite
Why be satisfied with grossly simplistic and inaccurate risk metrics for your portfolio of assets and hedge instruments? [Read on](#)

The market has changed. Is your risk system keeping up?
[Find out more](#)



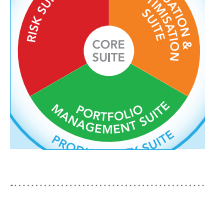
Your risk FAQs answered
We present answers to some common issues on how to properly address energy risk management challenges. [Read on](#)

Open courses
Generation Asset Analytics & Risk Management



Industry analyst view: white paper
What do traders want from risk systems and why are ETRM systems falling short? [Read on](#)

London
30th & 31st March 2011
Gas Portfolio Optimisation



New release: Lacima Analytics v5
Learn about all the new features now available in our flagship application for energy risk management, valuation and optimisation. [Read on](#)

London
26th & 27th May 2011
For more information email info@lacimagroup.com

Featured modules: the Risk Suite

Do you face any of these risk management challenges?

- I have disparate systems to handle my multi-commodity/geography portfolio; I need a single risk metric
- My risk metric needs are more complex than what my existing systems provide; I need add-on functionality
- I am looking for a single application to handle all my risk management needs
- My ETRM system can't handle non-basic risk calculations, I am having to perform ad-hoc analysis off-system which exposes me to the potential for serious errors

The Risk Suite is a set of modules within Lacima Analytics and supplements any ETRM system, to provide a comprehensive range of market and probabilistic credit risk metrics for the simplest to most complex requirements:

- * Mark-to-market * Value-at-risk * Earnings-at-risk * Revenue-at-risk * Gross margin-at-risk * Cash flow-at-risk * Potential future exposure

Lacima's risk metrics accurately model the whole portfolio, including energy market prices, financial contracts and the underlying physical assets such as generation and gas assets.

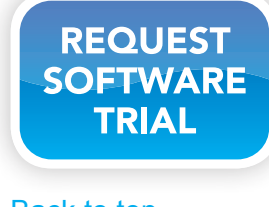
Business benefits

- **Single consistent view** of risk across all commodities and regions
- **In-depth analysis** with comprehensive drill down to slice and dice by any attribute such as region, book, commodity and counterparty
- **Analysis at portfolio level** of financial contracts and physical assets for a complete view of your market risk
- **Flexibility of a spreadsheet** within an application environment providing all the security and controls for good risk management practice and auditability
- **Fixed price integration** tailored to your environment with no hidden costs
- **No costly replacements** of existing deal capture systems and databases
- **Full transparency** with published analytics methods readily available to clients

Key features

- Integrates seamlessly with any ETRM system for all data and reporting requirements
- Incorporate your own valuation routines and simulation engines into our risk framework or simply use our models
- Conduct sensitivity analysis, stress tests, what-if and scenario analyses across portfolios
- Perform hedging analysis to determine the best hedging strategies
- Measure credit exposure for the potential of default over various horizons

Receive full details of the Risk Suite now by calling: +44 (0)20 7036 0360 (Europe), +1 713 353 3949 (North America), +61 (2) 9275 8818 (Australia & Asia Pacific) or email info@lacimagroup.com



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Your risk FAQs answered

In this quarter's newsletter, we look at some of the questions we are frequently asked about risk management. If your questions are not answered here, please let us know by emailing info@lacimagroup.com

Q My trading and risk management system uses third party plug-ins for valuations and I am struggling to get information about the models and valuation methodologies used by the third party – essentially I have a 'black-box' which produces values I don't understand. Does Lacima Group provide more transparency on these matters?

A Yes, by employing Lacima's software solutions, you benefit from receiving full transparency on our risk models, algorithms and valuation methodologies. You won't be faced with being unable to provide the auditors the answers they need to sign-off on your risk approach.

Q When I look into the "comprehensive range of risk metrics" offered by my ETRM system, I see that it is basically four different ways of calculating VaR. I need to be able to report other relevant risk metrics which are cash flow based, such as GMaR or PaR. What can I do?

A Lacima Analytics' Risk Suite provides the ability to calculate and report the full range of relevant energy market risk metrics including: MtM, VaR, EaR, RaR, GMaR, CFaR and PFE. Our cash flow based risk metrics specifically address portfolios of physical assets, which can include power plants and gas storage facilities. Furthermore, portfolios of financial contracts and assets can be easily combined for joint risk exposure analysis. All these risk calculations derive all their data (forward curves, volatilities, trade data, etc) directly from your ETRM system thus avoiding the need for any system replacements, or the need to re-key any data.

Q My ETRM system cannot adequately handle complex assets types such as swing and storage portfolios, which means that I have to analyse these off-line in a spreadsheet. Management are concerned that this ad-hoc approach is exposing us to risk. We can't replace our ETRM systems. Is there an alternative approach?

A One of the major problems sophisticated users find with their ETRM systems is that the functionality offered for valuation and risk is basic with essentially no capability to adequately handle more complex portfolios. Users are left with no choice but to resort to spreadsheets and then face the corresponding challenges including the inability to report a fully consolidated risk metric.

Lacima Analytics works alongside ETRM systems and is implemented by experts recognised for their approaches to the complex modelling issues associated with swing, storage, tolling and power purchase agreements. Both the valuations and risk calculations are handled in a consistent way using the same models, methodologies and optimisation techniques thus providing management with the reassurance they desire.

Q After a recent merger, I now find myself using different ETRM systems for different commodities and regions. How do I achieve a consolidated risk metric quickly?

A The good news is that you don't have to replace your ETRM systems, or even try to combine them, to achieve such a consolidation. Lacima's flagship application "Lacima Analytics," offers your merged business a way to accurately, simply and cost effectively consolidate risk without the need to replace any ETRM systems from day one, or to resort to an unsatisfactory spreadsheet based amalgamation of the risk numbers exposing you to compliance problems.

The application has been designed to seamlessly integrate with ETRM systems through automatic upload of data including market curves, historical data, deal and asset specifications. As a result, Lacima Analytics can be placed in the centre of the existing software landscape to run all of the risk and valuation reports.

Q None of the ETRM system providers seem to have sufficient in-house quantitative or relevant risk expertise. Can Lacima Group hold detailed conversations with me about energy specific models and how they can be applied to my complex portfolio?

A Yes, Lacima Group has the largest and most qualified team of quantitative risk and valuation experts in the energy risk and valuation software sector, who develop, implement and support the software, and are easily accessible to all customers.

Q I have been told that it is sufficient to run fifty simulations for my risk calculations and even then it takes hours to run. Is this adequate to give me an accurate picture of my risk exposure?

A No. If your software provider is telling you that you only need fifty simulations for any valuation or risk calculation, then you should probably re-evaluate your provider. Fifty simulations are insufficient for meaningful risk exposure results in any market. Typically, you need to be able to run thousands of simulations to get an accurate picture of risk exposure. Lacima Analytics' strong batch processing capabilities allows you to run thousands of simulations in just minutes, without jeopardising the accuracy of results.

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Industry analyst view: white paper

Improving risk management processes is a critical area of focus for many commodity trading firms. A wide range of stakeholders increasingly require more detailed information about trading activities, exposures and risks. This increased scrutiny is exposing many significant issues around both the processes and systems that are used to understand, manage and report on risks.

Unfortunately many do not have the tools to properly address their issues. In this relevant white paper, Dr Gary Vasey, from the energy and utilities analyst and consulting firm UtiliPoint International Inc., supports what we have been saying for some time – ETRM systems alone aren't keeping up with current challenges in commodity risk management and that energy companies need risk focused software solutions to address these issues.

[Click here](#) to download the paper "The Commodity Risk Management Challenge."

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New release: Lacima Analytics v5

We are delighted to announce the following new features are now available in the latest release of Lacima Analytics.

NEW valuation and optimisation features:

- Incorporate stochastic inputs for the uncertainty of rain and snowmelt for hydro generation assets
- Utilise multi factor models with jumps

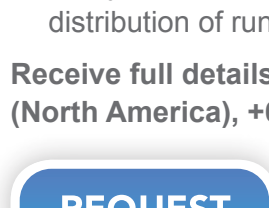
NEW risk management features:

- Calculate all standard Greeks including delta, gamma, vega, rho, theta as well as the sensitivities to jump frequency, jump volatility, long-term forward volatility and mean reversion rate
- Calculate cash flow based risk metrics such as earnings-at-risk or gross margin-at-risk using multi factor models with jumps
- Calculate and report true cash flow-at-risk with the ability to enter a series of invoicing dates and corresponding cash settlement dates
- Calculate futures contracts daily margin variation requirements
- Report the revenue-at-risk with the ability to calculate the netted position assuming all contracts settle on an a daily basis
- Control and create new risk factors

NEW productivity enhancements:

- Calculate correlations on all risk factors irrespective of granularity whether half-hourly, hourly, daily or any other intra-day granularity relative to all other risk factors
- Connect to external data automatically with the ability to import historical spot, forward quotes, forecast curves and contracts directly from csv files
- Apply security controls to restrict user access to different parts of the system, with the ability to control users individually or through groups
- Apply distributed processing for faster calculations to solve the most complex problems through the distribution of runs across multiple servers

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