

Treading a new trading path

The impact of regulatory change on
commodity trading and risk management
in the power and utilities sector



The roundtable

More than 60 senior executives and experts from 21 different countries gathered in May 2013 in Amsterdam, The Netherlands, for PwC's roundtable on the commodity trading and risk management challenges facing power and utility companies. Participants were drawn from different parts of the gas and electricity industry as well as from PwC. The moderators and speakers were:

Vincent Le Bellac	<i>Partner, PwC France</i>
Brian Dames	<i>CEO, Eskom</i>
Christopher Delbrück	<i>CFO, E.ON Global Commodities</i>
David Etheridge	<i>US Power & Utilities Leader, PwC US</i>
Zarin Imam	<i>Managing Director Trade Operations, Iberdrola Energy Services</i>
Richard Ito	<i>Senior Vice President and CRO, Iberdrola Renewables and Energy Services</i>
Dr. Markus Krebber	<i>CFO, RWE Supply & Trading</i>
Tim Schutt	<i>Partner, PwC US</i>
Norbert Schwieters	<i>Global Power & Utilities Leader, PwC Germany</i>
Folker Trepte	<i>Partner, PwC Germany</i>

Introduction

Big changes are taking place that affect utilities companies and their energy trading. Welcoming participants to the roundtable, Norbert Schwieters, PwC Global Power & Utilities Leader, reflected on how “companies are increasingly engaging in trading to improve and add more flexibility to their asset position. The increase in commodity trading in markets affecting power & utility and gas companies has an impact on short- and long-term contract prices, on price volatility, on the choices faced by end-customers and on the regulatory landscape governing markets.”

But that regulatory landscape is changing dramatically, as regulation is introduced in the light of greater scrutiny of derivatives trading. Inadequate regulation of the over-the-counter (OTC) derivatives market was identified as a factor in the credit crisis. Among other responses, the Dodd-Frank Act (DF) in the United States and the European Market Infrastructure Regulation (EMIR) in the European Union have been brought into force with significant implications for energy traders and power and utility companies.

EMIR introduces substantial reporting and risk mitigation obligations. It requires non-financial firms exceeding a certain threshold to centrally clear all OTC derivative positions. Also in Europe, the Regulation on Energy Market Integrity and Transparency (“REMIT”) took effect in late 2011. REMIT establishes new reporting and disclosure requirements for market transaction data and other information. It also contains rules to prohibit insider trading and market manipulation.

The European Commission is reviewing its markets in financial instruments directive (MiFID) resulting in a so-called MiFID 2. Across the Atlantic, the Dodd-Frank Wall Street Reform and Consumer Protection Act (hereafter referred to as Dodd-Frank) has introduced wide-ranging changes to financial regulation and reporting in the United States.

The changes directly affect energy trading. For example, Dodd-Frank subjects energy commodity swaps to full Commodity Futures Trading Commission (CFTC) regulation. In Europe, REMIT introduces additional reporting requirements on energy companies and the previous scope for companies to lie outside the scope of financial regulation is much less likely under MiFID2.

The focus of the roundtable was largely on the US and Europe but PwC’s Global Advisory Power & Utilities Leader David Etheridge also emphasised that the trend for such change is worldwide: “In the Far East, for example, there are also a lot of developments. Singapore, Japan, Australia and other countries are introducing similar regulations affecting OTC derivative trading. Indonesia and other countries also have specific regulations. If you are a global commodity or energy trader, you have to be aware of all these jurisdictions.”

The new regulations are potential game changers for how companies manage their energy trading. Indeed, they are already having a big impact. This report is not written as a guide to the regulations. Rather, it’s intended to give a flavour of how companies are responding and to look ahead at the market implications. We focus our summary on:

- *How the rule changes are adding to wider market challenges*
- *The move to futurisation in the US*
- *The data gathering and reporting challenge*
- *Where is it leading – the real world impact?*

Rule changes add to wider market challenges

The new regulations come at a time when companies are facing considerable wider challenges from a changing and rather uncertain industry landscape. Dr. Markus Krebber, CFO, RWE Supply & Trading, pointed out: “The value of our thermal generation assets is almost erased. We don’t earn the costs of capital on the generation fleet in Germany and also other parts of Europe. Trading opportunities and trading volumes in the European energy and commodity markets are diminishing, so the trading markets are shrinking. At the same time, the regulatory burden is snowballing.”

How is his company responding to these challenges? “We have a strategy of diversifying the trading business geographically and vivid interaction of our trading business with sales & origination, principle investments and asset management. With our business model, we have proven that trading is a facilitator to the other business and not only a business on its own. We are able to document that most of our trading business is risk-reducing under the definition of EMIR. However, I am not scared about EMIR and do fully support the overall intention to reduce systemically relevant counterparty risk also in the commodity trading business. What I am

scared about are the potential consequences of MiFID, which could really change the trading business in the energy and commodity world fundamentally in the wrong direction. We need to sit down with the regulators and standard setters to enable them to fully understand the potential impact of their technical implementation standards.”

Krebber explained that “RWE Supply & Trading is the commercial heart of RWE, more or less as a bank’s treasury function. All commodity flows go through this entity and are commercially optimised.” He outlined the three cornerstones of his company’s business model – commercial asset optimisation, sales & origination, and trading – and the control environment that goes with them: “We set up a control environment that is very similar to the banking industry. The minimum requirements for the trading and risk management in investment banks (MaRisk¹) are reflected in our operation.”

As examples, Krebber highlighted the segregation of duties up to the board level of the group, the total separation of all control environments and new business and counterparty approval processes being run before a deal can be done with a new counterparty or with a new instrument. He added: “We also have an independent price verification with the daily P&L and a daily limit control system.”

Timelines: Dodd-Frank, EMIR and MIFIR/MiFID

Dodd-Frank was enacted in July 2010 but is only just now getting to the point where the final rules are being promulgated. It was effective in July 16 2011 but then deferred several times. More new rules, interpretations and guidance are coming out on a regular basis.

EMIR entered into force in March 2013 with registration of the first trade repositories expected in August 2013 and reporting start dates following on after that. But many of the final EMIR rules await interpretation. MiFID 2 and MIFIR are still in draft. The latest indications are that the new MiFIR reporting obligations will be implemented mid-2015.

¹ Circular on Minimum Requirements for Risk Management for banks and financial services institutions (MaRisk), 4th revised version, BaFin (German financial services regulator), 15 December 2012.

Krebber also said that the company was ready to move its trading activities if needed: “We have set up two other companies, both of which have banking licenses – one in the UK, one in Germany. We currently don’t operate a lot of business in them. They are our regulatory hedge. We are prepared to move our entire business to them if needed, but this is not the preferred solution since that would not make the trading world safer, just different at higher transaction costs.” With regard to international diversification Krebber referred to the “start of operations in Mumbai and Jakarta in summer 2013.”

In both the US and Europe, a crucial consideration for companies is the classification of trades and what is hedging. But there remains a lot of uncertainty either because the regulation is still in development or because of ambiguity in the rules. Folker Trepte, Partner, PwC Germany, observed: “Uncertainty adds to the considerable burden already on energy companies.

The most important thing is hedging. Most companies, if they look at their gross notional value of their commodity derivatives, might easily be around or above €3bn European threshold. A risk based approach may be possible to proof hedging, arguing that the whole portfolio is risk-reducing. A lot of companies are exploring this path but it has not been agreed with the regulator yet.”

“I’m not scared about EMIR but MiFID could really change the trading business in the energy and commodity world fundamentally, in the wrong direction.”

Q&A

What do you see as the biggest risk?

Christopher Delbrück, CFO, E.ON Global Commodities: I share the view of Markus Krebber of RWE that the questions around capital adequacy rules, MiFID, pose the biggest risk. The requirements from the Minimum Requirements for Risk Management (MaRisk) include a number of things that are purely banking-related. A huge corporate restructuring will have to take place because you have to have enough equity in the overall business. The question then is what kind of equity and how liquid does it have to be. Is it going to be enough?

Richard Ito, Senior Vice President and CRO, Iberdrola Renewables and Energy Services: We talk about when (not if) market prices and volatilities rise. We’ve got 99% of our US volume on an exchange. All of a sudden when volatility goes up, you’re getting US\$30–US\$50 million dollars a day of margin calls. Somebody is not going to be happy. Also, what if one of these clearing houses does something untoward – how is that going to impact the market? Does that mean we have to have multiple identical types of contracts with multiple clearing houses? Those types of risks, from a market perspective, are ones that I am particularly worried about as the risk manager.

What are the strategic implications?

Delbrück: Counterparties finding themselves above the threshold will obviously have to take steps to comply, which could lead to organisations looking to diversify out of Europe. We believe European regulation has become extremely unstable and unpredictable and there is the opportunity now to do quite a lot of business in the US. The US\$8bn threshold is significantly larger than the €3bn in Europe. We are expanding our physical products, for example coal and iron ore freight. We are moving into liquid natural gas (LNG) as a physical business, and trying to expand LNG opportunities on the physical side.

What implications stem from the market abuse aspects of REMIT?

Vincent Le Bellac, Partner, PwC France: Any important information that a company has on its own assets, such as the maintenance plan of a nuclear power plant, or the fact that there is an unforeseen outage of a certain power plant, needs to be made public in a timely way and not be made known to the company’s own traders ahead of time. This is a very important element to consider in the relationship of trading and physical assets and an important compliance issue.

US energy trading looks to the future

Richard Ito, Senior Vice President and CRO, Iberdrola Renewables Energy Services has been involved in managing his company's response to Dodd-Frank since July 2010: "I can only say that 'misery loves company.' Hearing about MIFiD, REMIT and EMIR today, it feel like déjà vu. You all have a big task ahead in Europe as do we dealing with these new regulations."

The big impact has been to push trading onto the exchanges. Ito explained: "It is really pushing us towards clearing of all trades. Since Dodd-Frank has been out, the market itself has restructured such that around 95 or 98% of what we do now are cleared trades on a futures exchange. So the OTC market has pretty much dried up, particularly for gas and power."

Complexity and ambiguity are among the challenges for companies. "On the basic issue of 'what is a swap', there are 162 pages of text to define it. How about that for clarity!" observed Ito. His colleague

Zarin Imam, Managing Director Trade Operations, Iberdrola Energy Services, pointed out: "The record keeping and reporting requirements under Dodd-Frank are 'pretty intense'. Implementing has been a big task. Many companies do not have groups dedicated just to this legislation. So educating companies that are much smaller than ourselves is a big challenge."

Imam also highlighted the problem of ambiguity: "The regulations are so ambiguous it is very difficult to interpret. Each counterparty could have its own way of interpreting the rules depending on the type of business they have." Ito outlined how parties to the same trade, even with the advice of expert counsel, can come up with different interpretations, adding cost and confusion to the process. One result is trade groups from the energy industry investing time and resources to work with the CFTC to try to explain how the industry operates in order to get greater interpretative clarity.

The start of tracking bilateral trades against the Dodd-Frank threshold in October 2012 was followed a few days later by the move of ICE (IntercontinentalExchange) to futurise energy contracts. Along with other exchanges, the aim is to provide the benefits to customers of trading a listed futures product, while still replicating many of the preferred features of an over-the-counter (OTC) swap contract.

"Futurisation was our biggest change," explained Imam. "It led to a lot of confusion. But the advantage of going to a futurisation world was that it took us away from some of the Dodd-Frank requirements. There was no need to register as a 'swap dealer' or 'major swap participant' because you didn't have to deal with the US\$8bn threshold."

Getting physical

The trend of trading entities to trade around physical assets is accelerating. Morgan Stanley, the investment bank, owns three electric power plants with more than 500MW of capacity in the US. Now, Swiss-based commodities traders are expanding into assets. Recently, Vitol, the largest oil trader, bought the 1,200MW Immingham power plant in the UK from oil refiner Phillips 66.²

A lot of physical assets, such as gas peakers and refineries, are relatively distressed at the moment leading to opportunities which are likely to reinforce this trend. RWE's Dr. Markus Krebber gave an example of the purchase of an equity stake in a US coal mine: "Enhancing our traditional trading activities - that's what we try to do in our principal investment business."

² Commodities traders acquire power stations, Financial Times, 22 May 2013.

But futurisation also brings disadvantages. “The end user is going to get hit by the higher cost of clearing,” Imam pointed out. “That is a huge concern, at least in our company. Hedging can be more difficult. The US gas market is very complex and straight futures do not necessarily always help us on some of our hedging transactions. Bilateral swap market liquidity has also been significantly reduced because most people are very concerned about reaching that US\$8bn threshold.”

A major challenge is changing internal mindsets and behaviour. “A big implementation issue that I’ve come across is basically re-educating our traders to think in a different way,” said Imam. A key component of Dodd-Frank is you must know why you are doing a trade at inception, whether it is a hedge or a proprietary trade. Many companies such as ours have traders who do both proprietary and asset trading and we really don’t distinguish saying these are the prop traders and these are the asset traders. So that is a big challenge.”

Looking ahead, Ito said: “Recently a group of senators has asked the CFTC to reduce the US\$8bn threshold. It is expected to go down to about US\$3billion over the next few years. But this may not be such a big deal for the energy markets because of how the market has shifted to futures which are outside of Dodd-Frank. Also the CFTC has made it very clear that it intends to reintroduce position limits. One of the significant things is that we expect the limits to apply intra-day. This necessitates real-time position reporting, which nobody has.”

Perspective: integration of trading in power utility companies

Vincent Le Bellac, Partner, PwC France, gave roundtable participants a perspective from France, outlining the different approaches to trading taken by two leading French power utilities, EDF and GDF Suez: “In EDF trading is a single entity, EDF trading, and reported as one global business in the accounts. In contrast, in GDF Suez trading is now not separated anymore. It is fully integrated into the business units, so it sits within the different business lines.”

What factors are relevant to the choice of whether to integrate trading fully or to keep it as a single global entity? In the latter case, if global commodities such as coal or oil are a primary focus then the concentration of information that comes with a separate single global structure is useful. Also, the structure of the asset portfolio needs to be considered. In EDF’s case, Le Bellac points out that “the nuclear fleet is relatively less optional, tilting the weight of their forward outright positions significantly compared to the weight of their optional positions. Very close integration is probably less important for them than for a very optional portfolio.”

But Le Bellac also observed that in current European market conditions much more value is coming from the very short-term part of the trading curve – to the day ahead, intraday, week ahead, month ahead. “In the short-term horizon you need to be very close to your assets, very close to your asset manager, because the value that you are bringing to the company is realised by decisions on asset operation. Can you start it very quickly? If you are very integrated, then you will probably have a better potential to manage the very short-term horizon.”

“Futurisation was our biggest change”

The data gathering and reporting challenge

“We spoke to a number of companies and asked them what are the three biggest issues you have with EMIR and REMIT. ‘IT, IT and IT’ was the answer from many of them,” said PwC’s Folker Trepte. “They can handle the actual rules and regulation but there is a huge challenge to get all this information together from the whole group and report it to the market.”

The data gathering and reporting challenges that arise from the new regulation are immense. Tim Schutt, a PwC US partner, said: “Companies are managing physical assets, multiple commodities and participating in multiple markets. The transactional data and the data that is needed to report and manage the business is really very complex.” He explained that in the US there is a move towards having a standard ETRM system as the backbone for the majority of transactions but with other more specialist systems or bespoke in-house solutions for physical transactions.

Iberdrola’s Zarin Imam was in no doubt about the scale of the technology challenge: “IT implementation, both the cost and the timeline to comply, is another huge challenge. The vendors can’t develop packages when the rules remain ambiguous or undefined. We’re learning the regulations together and working with the vendors to navigate through this. In the meantime, in common with other companies, we’ve had to go ahead ourselves with in-house solutions.”

Imam pointed out how the IT design had to be closely allied with the strategic response to and requirements of the regulation: “One of our challenges was designing systems to enable traders to do the things that they need to do but also building in restrictions to reflect the changed regulatory environment. We had made a decision that we did not want to be a swap dealer. We wanted to be classified as an end user and not cross that US\$8bn threshold so that was another important driver.”

PwC’s Pim Roest, a PwC partner in The Netherlands, added a European perspective: “Most of the companies have started with self-development but staying like that will provide a significant challenge in the future. But many of the vendors tend to specialise in one commodity and not so much in others. There are still a lot of steps to be taken before we get more integrated solutions from them.”

“IT implementation, both the cost and the timeline to comply, is another huge challenge”

Anton Broenink is the director of strategy and optimisation for GasTerra, a Dutch-based international natural gas trading company operating in the European energy market: “As a small company we’re a little bit different from some others. We moved everything into the business not into a separate IT role, running it as a business project not an IT project. We do a lot of joint coding and joint development with the traders, with the planners and with the optimisers themselves.”

Schutt underlined the point: “Most of the time these projects are successful is when they are business-driven not IT-driven.” E.ON’s Christopher Delbrück, followed up: “We always have a co-project structure between business and IT.” He also emphasised the importance of board-level involvement: “I probably spent 40% of my time on our IT programme and intervene heavily. If you have large programmes, get a board member to commit significant time. If you don’t get that, it can be very difficult given the scope for conflicting objectives and debate.”

Delbrück also felt that IT vendors needed to step up their game: “Given the amount of money at risk in those systems, I would expect significantly higher standards from the vendors. For example, release strategies that include product development roadmaps do not exist. We are trying to form a heavy-hitter user group to get the vendors up to speed to a better standard.”

Q&A

Can you tell us about data reporting to repositories in the US and differences between Dodd-Frank and EMIR?

Zarin Imam, Managing Director Trade Operations, Iberdrola Energy Services: We have three registered swap data repositories (SDRs) in the US. Each one has different criteria. There is no consistency which makes it a huge challenge for implementation purposes. There is no double reporting. Unlike EMIR where both counterparties report, there it is actually a violation if both counterparties report.

Richard Ito, Senior Vice President and CRO, Iberdrola Renewables Energy Services: From a reconciliation point of view, if you are the non-reporting party, you still want to know that a trade is being reported correctly. So we have to know who it is being reported to and then we have to interface with all three of them. So this becomes another complexity to deal with.

What’s been your experiences in governing and managing the major IT development side of things?

Christopher Delbrück, CFO, E.ON Global Commodities: We made the front office directors the programme owner. In the end they have to justify the business case and bear the cost and we charge full cost back to them. We took the approach of a ‘standard transaction pipeline’, identifying standard deals that had to be as efficient as possible. We deliberately took complex modelling and complex valuations out of the system because it can get overscripted and unstable. We’re now in the final stages of putting in a data warehouse and have a ‘single point of truth’ for traders and the risk system is in-house. Given the diverse activities, we have a separate risk engine that we feel more comfortable developing specifically for our needs outside of the ETRM system.

Where is it leading – the real world impact

Brian Dames, CEO, Eskom gave roundtable participants an opportunity to gain insight into the direction of market design in South Africa. His presentation brought the discussion firmly back to the real world challenges of energy security, affordability and access. He commented: “The issue for me is – what is the problem we are trying to solve. Does it help the energy security that is needed to drive economic growth and fundamentally change the quality of life for people?”

Dames said that the power industry and the government in South Africa were drawing on lessons from around the world: “South Africa observed what has had happened in California and in Europe. We were at the point of setting up a trading desk, front office, back office and the utility was about to be split up. But looking at what has happened elsewhere has led to a change of direction.” Instead changes are concentrating on a new independent system operator and a growing role for independent power producers.

Christopher Delbrück, CFO of E.ON Global Commodities, picked up Dames’ theme of looking at the impact on fundamental real world questions. He expressed concern that the impact of regulation may be counterproductive: “What happens with regulation is that you make risk reduction more expensive. It actually provides incentives not to hedge because it gets very costly to hedge. So, from a policy perspective, I would ask are we reducing the risks of the system or actually increasing the risks?”

But Delbrück felt that some acknowledgement of this may be incorporated in the roll-out of the regulations. He noted “positive comments from the European Securities and Markets Authority (ESMA). They do seem to realise that there might be unintended consequences arising from what is in the regulation.”

Delbrück also expressed concern about the speed and nature of implementation of the new requirements: “The REMIT regime entered into force but with inconsistencies in implementation, lack of transparency on how to apply it, and overlap with other regulation.” As well as compliance costs, Delbrück pointed out that there are significant costs associated with pushing more trading onto the exchanges: “The cash that is tied up in margins paid to exchanges cannot be invested elsewhere by the Group.”

“What happens once we all have moved to the exchanges? Have we actually derisked the overall system and helped the real economy?”

He believes the movement towards exchanges reduces company choice about balancing risk: “Some companies with large asset bases would probably choose bilateral arrangements for trade with each other as they would feel comfortable about counterparty risk, preferring to use the exchanges for higher risk counterparties. What happens once we all have moved to the exchanges? Have we actually derisked the overall system and helped the real economy? Actually we won’t have. Because there will be fewer counterparties, which are the clearing banks.”

The effect of this, observed Delbrück, is a concentration and clustering of risk around the banking sector. This concentration effect is further exacerbated by the need for the clearing banks to have a default fund, which is funded by the people who trade on the exchanges.

Is it all bad news? “Of course not,” said Delbrück. “The regulation has a disciplining effect on operations. You can’t allow yourself to make mistakes. Mistakes become an external issue as well as an internal issue.” He also highlighted

the scope for greater efficiency, with everything on exchanges being confirmed electronically, as well as opportunities for compliance improvement. This comes principally through increased transparency, an even higher focus on daily accuracy and fewer risks around small or ‘unknown’ counterparties.

Q&A

Will liquidity continue to reduce and what are the consequences?

Dr Markus Krebber, CFO, RWE Supply & Trading: I am expecting a further drop in liquidity. It is already under threat from subsidy-fuelled renewables growth. Regulatory uncertainty further undermines market confidence and some financial players have partially or wholly withdrawn from energy trading. A reduction in liquidity could have adverse effects for end customers. It could be made impossible to hedge their fuel exposure further out. If they want to plan to keep a plant open for the next three to five years with a fixed price contract, we might not be able to offer one because there is no liquidity for us to hedge that risk or, if we do, it could be much more expensive.

Have we got to the point where we are more driven by policy than the market and are you making bets in advance on where policy is leading to?

Brian Dames, CEO, Eskom: Policy is and has always been important in our industry. There is one truth and that is that policy certainty is crucial for the electricity industry in all parts of the world.

Richard Ito, Senior Vice President and CRO, Iberdrola Renewables Energy Services: Everyone looks at the policy direction very closely of course. But sometimes the amount of capital that you have to put behind an anticipation of policy is too much when set against the uncertainty. So, for example, in hindsight the extension of production tax credits (PTCs) in the US renewables sector would have been a good bet to make but the cost was too large for most companies.

Review

A round-up of the main considerations facing international power and utilities companies as they adjust to changing regulation:

- 1** Multinational trading data is needed, not just local data. Remember also that different regulatory regimes will require different data and in different formats, adding considerably to the system/process challenge.
- 2** Are you on track to fully understand and implement the minimum standard of operational, market and credit risk management that will be required?
- 3** Do you have a clear overall compliance path and do you have a 'plan B' if the actual development and interpretation of rules puts the path off course?
- 4** Are you monitoring your worldwide hedging and non-hedging trades on a daily basis if you are anywhere close to the regulatory threshold?
- 5** Do you know how you are going to deal with your group internal trades risk management, particularly bearing in mind that intra-group transactions do not have the same exemption in the US that they have in Europe?
- 6** Are you equipping your people right across the world to understand how the different regulations affect them? Remember they need to know about the rules affecting the territories of all the counterparties they deal with, not just their own territory.
- 7** If you have to do mandatory clearing on a daily basis be ready for major trading process change – including agreements with clearing agents, daily monitoring your 'mark to market' and providing cash to a clearing agent and a central counterparty.
- 8** Do you have senior buy-in for new resources and the right governance and steering processes in place for the major IT changes you have to make?
- 9** Have you got effective 'insider trading' controls to prevent information about your asset position reaching your traders before it is released to the market?
- 10** Have you worked reporting implications through fully with your counterparties and is there a clear process for what happens in the case of disputes?

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