

## Deal confirmation:

# *Weak* link in the risk *management* chain

No matter how fast and how many trades you can do in the front office, the execution will not be 100% error-free. It's up to the deal confirmation desk to catch your mistakes—and they must be caught in time

According to *The New York Times*, on March 2 of this year a broker misplaced the decimal point while executing an order on the Nasdaq stock exchange. A day trader, who thought he had made a profit of \$145,000, later discovered he had actually lost \$130,000. Although all the systems executing the trade were electronic, the error was made by a human.

This anecdote should strike a nerve at energy trading firms, which spend the bulk of their time trying to quantify and manage the risks they take. One of the first and most valuable lessons they learned about risk management came courtesy of Nick Leeson, the rogue trader who brought down the investment bank Barings in the mid 1990s. That lesson was: You can't control risk unless you separate your front and back offices.

However, the careers of many energy traders begin in the back office. Managers believe that if a "kid" makes a mistake there, at least it won't bring down the company. But although online energy exchanges have increased the velocity and volume of trading, they've done nothing to reduce the amount of work involved in confirm-

ing deals. Confirmation is still a manual, paper-driven process of verifying signatures and assembling evidentiary documents to support deals. While the front office turns to fancier and more powerful analytical software and the middle office deploys state-of-the-art risk management systems, life in the back office continues to test humans' tolerance for tedium.

The importance of deal confirmation cannot be overstated. In addition to being a legal and binding act, confirmation serves as the last opportunity to prevent a deal from being transacted wrongly. As transaction volumes rise, so do the opportunities for introducing human error during the deal confirmation process. Confirmation represents a potential source of operational risk that cannot be hedged.

### Zero tolerance

When asked what he considers the biggest offense a trader could make, Jim Donnell, CEO of Houston-based Duke Energy North America, answered without hesitation, "doing a deal and not recording it." He says he'd even fire a trader for being that sloppy. "The only thing worse," adds Greg Hickl, head power trader for Tulsa-based Williams Energy, would be "if

## Types of deals and confirmation methods

Type of deal	Front-office execution	Confirmation method
Bilateral, direct with counterparty	Traders transact by voice (recorded phone conversation) or on on-line trading platforms of counterparties—such as EnronOnline and DynegyDirect	Depending on the culture, either the buyer or seller initiates confirmation. This may be verbal or by fax. On-line platforms automatically generate fax confirmations
Brokered	Traders talk to brokers (voice-recorded phone) or execute on-line using broker platforms or on-line exchanges (HoustonStreet, ICE, TradeSpark)	Broker generates a confirmation for each counterparty. However, both counterparties still have to confirm with each other
On a regulated exchange	Whether on-line or in an exchange, these have clearing functions. Examples: Nymex, CBOT, KCBOT, IPE	There's no need to confirm as the exchange is the counterparty and clears the deals

### Possible sources of error

■ **Missing or trader drawer transaction:** A trader makes a transaction but forgets to record it. This carries tremendous risk, as no one else knows about it until settlement.

■ **Buy vs. sell:** A trader buys energy but accidentally enters it as a sale, or vice versa. This is very dangerous, as it would result in a double profit and loss (P&L) hit. Assuming that the verbal trade was done correctly but one party enters it incorrectly and the error is not caught, the trader may be reporting an incorrect P&L on this trade. Once the

error is discovered, usually at settlement, the incorrect P&L is reversed while the correct P&L is reported in a double whammy (a gain or loss).

■ **Phantom deal:** Similar to when a trader does not record a deal, this is the case of a deal being entered twice. A large company last year reported a multi-million dollar gain as prices moved up significantly over several months. After they took the erroneous loss off their books, this resulted in a very favorable profit

swing. This could have easily gone the other way.

■ **Other errors:** deal attribute mis-specifications—such as price, volume, delivery point, period, currency, or counterparty, to name a few. These could be caused by miscommunication, writing errors, typing errors, spelling errors, misinterpretation, or forgetfulness. However, these errors usually do not create the huge profit and loss swings that the buy/sell error, phantom, and missing deals cause.

a trader tries to hide a trading mistake.”

At energy trading firms, mistakes have little chance of remaining covered up for long. If their electronic systems are working correctly, both the middle and back offices should receive a confirmation from the broker or counterparty for every deal made. But when markets are volatile, Hickl explains, “honest” mistakes are more likely to happen, and the back office may have a difficult time catching them. The proliferation of streamlined systems that enable a trade to be entered in 15 seconds or less and generate its own confirmation are giving front offices more control over the risks inherent in the use of manual, back-room processes.

It's important to realize that although process automation and systems integration can mitigate confirmation risk,

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they cannot eliminate it—because humans are still involved in the process. Once two traders make a deal, the middle or back office of their companies still must contact each other to confirm its details.

### Go with the deal flow

Although the front, middle, and back offices have slightly different responsibilities at different energy trading firms, this is not evident to the outside world. All energy traders do business in much the same way (Figure 1). At most trading houses, trades are made

and entered—captured, in other words—in the front office by traders, their analysts, assistants, deal input clerks, or even by a pool of deal-capture specialists.

Trade capture is important for several reasons: for correct invoicing, proper risk control, and acknowledging “intent to pay.” Depending on the type of deal (see table), the confirmation desk will either phone or fax the counterparty to confirm it, wait to receive a confirmation from the other party, or initiate a confirmation. If the deal was done on an on-line exchange, the confirmation

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desk will also check to see that the exchange recorded the transaction. If a trade has a physical component, the seller's scheduling desk also plays a role, by "nominating," or scheduling, the flow of energy.

### A steep learning curve

As mentioned, neophytes may comprise much of the staff of back-room confirmation desks. They have a lot to learn back there, including the jargon

of the industry and the difference between floating- and fixed-price deals.

It helps if these entry-level personnel are quick studies, because in many ways energy trading is more complicated than financial trading. In financial markets, no more than 20 currencies or 10 interest rates comprise the universe of traded commodities. In equity markets, there are thousands of stocks, but no forward market (with the exception of equity options).

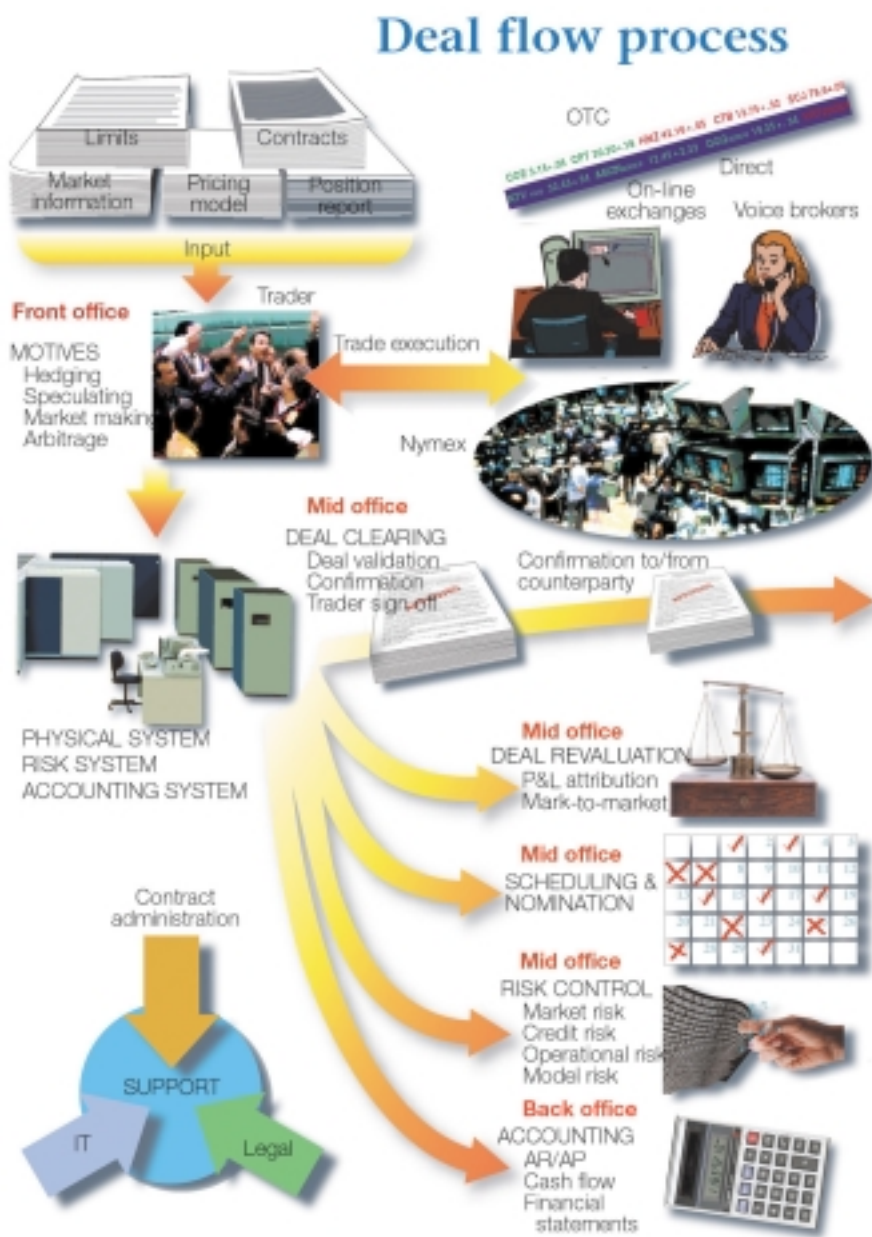
In the North American gas market, by contrast, there may be 60 basis locations each trading two years out at any time. Newcomers also have to learn to handle options, thousands of price points (specifying delivery location and time period), and deals for transmission and storage capacity. If the market has high volatility, large notional values, large transaction volumes, low margins, and long settlement cycles—as physical energy markets do—the dangers of using antiquated processes are far greater than in financial markets, which trade in "virtual" money.

The physical nature of commodity electricity raises the complexity of trading it to another level. In the U.S., electricity is specified on an hourly basis. In the U.K., it's half-hourly. In Germany, it's every 15 minutes. Volumes and prices must be specified for each time slot. In physical deals, the high penalties for throwing the delivery systems out of balance behoove counterparties to capture and confirm deals with great accuracy.

### To err is human

As the transaction volume and volatility of a market increase, so do the chances of making a mistake and the penalties for doing so. Mistakes can be made when a trade is made, when it is entered into the system, when it is confirmed, when energy is delivered, and even as late as when a payment is made. Modern electronic trading systems incorporate many checks and balances to help catch human errors, but some still slip through.

The manual process of deal confirmation is particularly error-prone because it may require the handling and matching of media as different as paper faxes, tapes of phone conversations, and electronic files. Exacerbating the problem, there is no industry-standard confirmation form. Nothing prevents a trading firm from burying a paragraph of legalese at the bottom of its document, which is why traders like to hire people for the back office with a strong attention to detail. Ironically, paper fax and verbal confirmations are still the preferred media,



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as e-mail is still not considered secure enough. Even the simplest deal may generate three to five faxed pages for confirmation purposes.

Because energy trading is so complex and demands such high accuracy, deal confirmation is a stressful job. One trader reports that the people who do deal confirmation at his firm dread hearing from the firm's traders, because they only call when someone in the back office makes a mistake. Some companies try to reduce the stress by distributing the confirmation workload throughout the day. But at most others, the rule remains hard and fast: All transactions of the previous day must be confirmed by noon the next day.

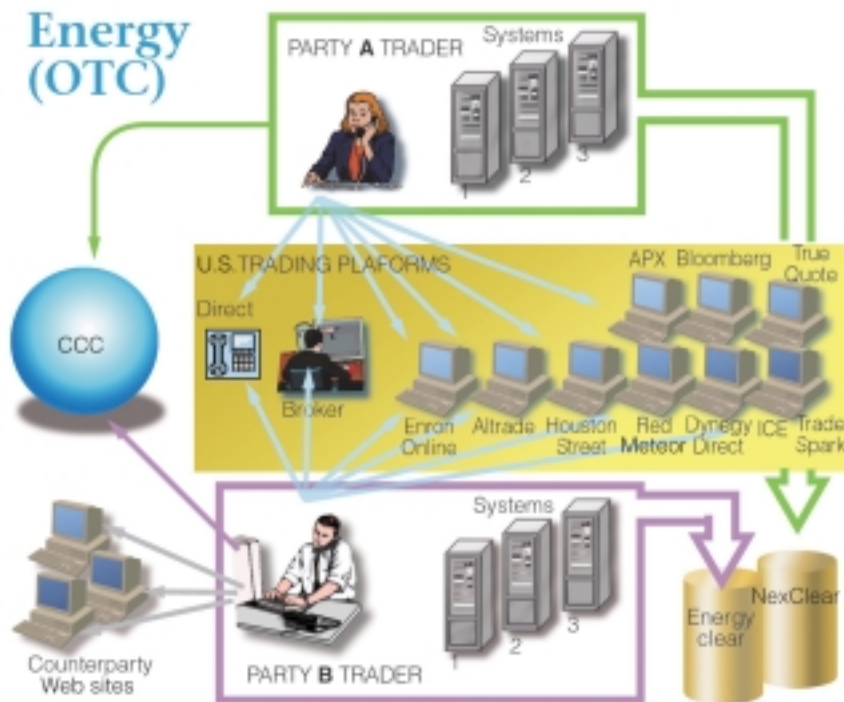
## To catch an error, divine

How successful are humans at catching errors made at the deal-confirmation stage? It depends. One top trading firm—whose confirmation desk is staffed by new hires that typically last only last six months on the job—estimates that as many as two out of every five deals it makes contain an error of some kind. Another—which entrusts this task to more-senior personnel—estimates a 5% error rate. But this does not include spot deals which start the next day.

Unlike market risk, which can be managed, the operational risk related to errors in deal confirmation cannot be hedged in ways other than building a wall between the front and back offices, endless checking and rechecking, and using good personnel and procedure management practices. Money is also a factor in dealing with confirmation errors. If a firm fires someone who makes a \$500 mistake, it will then have to spend many times that to train someone else to do his or her job.

## Legal risks

Rather than wait to receive deal confirmations, some traders initiate them, both for legal reasons and to exert greater control over the process. There are two types of confirmations in use today: positive and negative. A positive confirmation requires both parties to agree that a trade has been made



2. If both parties to a deal are subscribers to the company's service, they would send their version of its details to Confirmation Clearing Corp (CCC) and have CCC do the work of matching and confirmation. Note the connections to EnergyClear and NexClear, which are responsible for clearing and settlement

between them, and that the trade meets agreed-upon specifications.

A negative confirmation, by contrast, presumes that the other party has agreed to the deal unless it is notified to the contrary by a certain date and time. This practice, which speeds up the confirmation process (and therefore enables increases in transaction volume) is the norm at on-line exchanges. EnronOnline, for instance, automatically sends a confirming fax to every party with whom it does a deal. If it fails to receive a response to the contrary within a certain number of business days, Enron assumes that the deal is confirmed. The main problem with negative confirmation is that it allows a counterparty that spots a mistake in its favor to keep quiet about the error.

*Automatic trade confirmation is the first step on the road to straight-through processing*

## Toward automation

Several vendors of trading software have added automatic deal confirmation to the list of features of their integrated product suites. Among them is Houston-based Altra Technologies, whose vice president David Hanson explains that, "Automatic trade confirmation is the first step on the road to straight-through processing."

Trading firms have begun to take notice of straight-through processing (or STP, a term that implies the removal of humans from all points along the deal-processing chain) for obvious reasons. Less-costly and more-powerful integrated systems and middleware will doubtless foster the proliferation of STP, allowing more traders to automate their existing, manual deal-confirmation processes. However, the complete automation of energy trading industry-wide will still require standardization. All market participants—including their legal departments—will have to agree on a common format and procedures for confirming deals.

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#### STP—the trader's edge

In addition to eliminating human confirmation errors, another big benefit of STP is that it promises to enable energy traders to do more trades of greater complexity more quickly. The nomination and confirmation processes being put in place in the U.K. in preparation for the shift to the New Electricity Trading Arrangements (NETA) this spring are a good example of how complex and time-critical energy trading is becoming. Under the new rules, electricity schedules will be defined on a half-hourly basis, and all 48 time slots in the day must be specified by volume and price in a two-hour time window from 6:00 to 8:00 p.m.

Oliver Mills, vice president of European sales for New York-based Caminus, believes that it will be impossible for traders to meet these time constraints while doing 100 to 1,000 deals a day, unless they automate their business processes. So Caminus has added a matching engine called ZGrid to its Zai\*Net software suite.

Based on a subset of XML standards, ZGrid replaces fax confirmations and shows an audit trail of all information exchanged between buyer and seller. The system obviously works when both counterparties have ZGrid, but it also works when the party on the other end has trading software that is compatible with the so-called Enron Spec. Developed by Enron, this specification—also called the Group of Seven spec—is supported by the seven leading participants in the new U.K. energy market. The spec itself delineates the physical format of, and procedures for executing, a trade.

Another software vendor targeting the nascent deal-automation market is TradeCapture.com, based in Stamford, Conn. According to Chief Marketing Officer Matt Frye, the compa-

ny's Integrated Commodity Trading System (ICTS 2000) automatically updates a trading firm's internal records of scheduled, confirmed, and actual shipments, giving it both a real-time and a historical view of its positions. The system can initiate the sending of deal-confirming electronic files, faxes, and telexes.

Altra's David Hanson hits the nail on the head in describing automated trade confirmation as the first step on the road to STP. After a deal is confirmed, it must still be cleared and settled. Two new companies say they have found a way to automate those processes too.

One is Houston-based EnergyClear, which says it is the first industry-sponsored clearinghouse to offer comparison, netting, and settlement of wholesale energy contracts to over-the-counter (OTC) energy traders. Co-founder and president Lee Burton believes EnergyClear will revolutionize the OTC energy markets by reducing traders' credit, legal, operational, and liquidity risks, which in the long run will increase those markets' depth and liquidity. Counterparties must still confirm their deals, however, before turning to EnergyClear.

The other new firm eyeing OTC energy markets—and other OTC commodity markets as well—is NexClear Inc., Boulder, Colo. The company says it will soon be offering centralized clearing, fulfillment, and delivery services to all OTC-traded commodity markets. In addition, it will also guarantee transactions, monitor credit risk, provide trade data, and perform necessary middle and back-office services. The NexClear system will allow traders to use the Web to enter details of their trades in a confirmation window.

#### Outsource to ease risk

Checking the details of deals more

diligently and automating the confirmation process are only two approaches that energy traders can take to minimize their operational risk. Another is to hire a third party to guarantee that unforeseen events won't cause financial pain—a practice akin to buying insurance.

A company that offers such a service to energy trading companies is Houston-based Confirmation Clearing Corp (CCC). Founder and President Chris Papousek advises that, "A good way to test the readiness of an organization to cope with a counterparty default is to run an occasional fire drill—to expose gaps in processes that can then be filled when the clock isn't ticking."

He urges energy trading firms to consider using an independent third party—such as CCC—to eliminate the legal risks of deal confirmation. If both parties to a deal are subscribers to the company's service, they would send their version of its details to CCC and have CCC do the work of matching and confirmation. Both would be covered against errors and omissions by the equivalent of an insurance policy. Figure 2 shows how the service works. Note the connections to EnergyClear and NexClear, which are responsible for clearing and settlement.

Papousek believes that a confirmation service such as the one his company offers can work only if it is centralized, independently owned, and works in real time with all commodity markets and trading platforms. "The last thing you want in the confirmation arena," he says, "is a fragmented solution that only works with a single system or a finite number of commodities." ■

—Anne Ku

#### Visit these sites for more information

Altra Technologies ..... [www.altra.com](http://www.altra.com)  
Caminus ..... [www.caminus.com](http://www.caminus.com)  
Confirmation Clearing Corp ..... [www.confirmcorp.com](http://www.confirmcorp.com)  
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